

Diversity, Disparity and Diabetes: Voices of Urban First Nations and Métis People, Health Service Providers and Policy Makers

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Abstract

While previous health research with Aboriginal populations focused almost exclusively on Aboriginal Peoples of First Nations descent living on reserves or in isolated rural communities in Canada, this study focusing on diabetes aimed to engage Aboriginal Peoples of First Nations and Métis descent living in an urban Ontario setting. Type 2 diabetes mellitus is a progressive metabolic disorder that affects Aboriginal Peoples of Métis and First Nations descent disproportionately compared to the rest of the Canadian population. To understand this disparity in diabetes incidence and to address issues with existing diabetes prevention and management strategies, this study: a) explores the perceptions surrounding Type 2 diabetes and its prevention from First Nations and Métis community people and health service providers and policy makers; and b) informs the existing diabetes prevention, management and care strategies in light of these perceived understandings.

Primary data was collected through 40 in-depth one-on-one narrative interviews with First Nations and Métis people, health service providers and policy makers. Thematic codes that emerged through the narrative analysis of this data revealed that to fully understand the social determinants of diabetes in an urban First Nations and Métis people's context required the application of intersectionality theory, since production of First Nations and Métis diabetes is socially determined and deeply intersectional. By combining the concepts of the social determinants of health and intersectional approaches, narrative analysis of the primary data revealed that diversities in socio-economic, cultural, legal and spatial contexts determine First Nations and Métis people's life choices and have a strong bearing on their health outcomes. First Nations and Métis participants' narratives revealed that dimensions of marginalization were reflected not only through inadequate material resources, but also through intersections of multiple factors such as colonial legacies, stereotyping, legal statuses, and the pan-Aboriginal nature of government policies and services. First Nations and Métis community members indicated that preventive programming aimed at avoiding or managing diabetes should be grounded in balancing and restoring the positive aspects of physical, mental, spiritual and emotional health and should also balance their diverse needs, lived realities, and social circumstances. The views of health service providers and policy makers captured in this thesis tended to reflect an understanding of diabetes causation grounded in both biomedical and intersecting social determinants of health. At the pragmatic level, however, the solution to this health issue presented by health service providers and policy makers addresses only the measurable individualistic biomedical risk factors of diabetes. Policy makers also discussed the need for developing qualitative indicators of the success of presently implemented health programs.

Overall, the results of this study indicated that effective diabetes prevention and management strategies for urban First Nations and Métis people must recognize and address the diversities in their historical, socio-economic, spatial and legal contexts as well as their related entitlement to health services. A comprehensive diabetes prevention strategy should target the social determinants of health that are specific to urban First Nations and Métis people and must build on community strengths.

Keywords: type 2 diabetes, Intersectionality, social determinants of health, diversity, urban Aboriginal Peoples, First Nations people, Métis people, diabetes prevention.

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Dedication

*I dedicate this thesis to my mother, who introduced me to the world of learning;
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Chapter 1: Introduction

“[Aboriginal Peoples] do not see themselves as a pan-Aboriginal population - they come from diverse Nations, heterogeneous cultures, linguistic groups and geographies where there is no One Perspective.” (Monture-Angus, 1999)

In Canada, diversity gained official recognition with the implementation of the *Canadian Multiculturalism Act* in 1988. ‘Multiculturalism’ and its synonym ‘diversity’ are terms generally used in Canada when discussing the culture and traditions of people who originated outside of Canada but migrated there. Diversity within and between population subgroups extends well beyond the immigrant population into the Indigenousⁱ population in Canada. Health services and policy research with Aboriginal Peoplesⁱⁱ, however, have often taken a pan-Aboriginal approach and homogenized the realities of Aboriginal Peoples’ lives by drawing on static conceptualizations of their culture, society, history, economy and legal status (Waldram et al., 2006; Bartlett et al., 2007; Hankivsky and Christoffersen, 2008). Moreover, despite their increased presence in cities and facing disproportionate burden of chronic disease such as diabetes, urban Aboriginal Peoples of First Nations and Métis origins (Bartlett et al., 2004) have received relatively little population-specific attention among Canadian health researchers and policy makers (Young, 2003; Bartlett et al., 2007). To address this paucity of diversity-based, culturally-appropriate, Aboriginal population-specific and socio-contextual health research, this community-based research project generates new knowledge by capturing the diverse experiences and reflections surrounding diabetes among First Nations and

Métis people¹, and health service providers and policy makers who tend to people with diabetes in these communities.

Diversity, Disparity and Diabetes

Type 2 diabetes mellitus (also referred as T2DM, adult-onset diabetes, and non-insulin-dependent diabetes [hereafter, “diabetes”]) in the biomedical world is generally regarded as a metabolic disorder characterised by high blood sugar and associated with risk factors such as obesity, poor diet and inadequate levels of physical activity (PHAC, 2011). Participants’ narratives, however, present diabetes causation through description of challenges, struggles and successes in their lives. In other words, their perceptions present the biomedical risk factors of T2DM as being embedded within the broader intersecting socio-economic, cultural, historical and political characteristics of their everyday lives. Again, diabetes incidence varies within and between the Aboriginal population groups according to its unique characteristics (PHAC, 2011). Studies also indicated that poor living conditions, socioeconomic status, education and income levels, and poor lifestyles were stronger predictors of diabetes than potential genetic predispositions to T2DM (Green et al., 2003; Reading, n.d.; Reading, 2009). The combination of early disease onset, increased urbanization, rapid progression of this preventable disease process and disparities in disease outcome across these Aboriginal population groups calls for improved communication and collaboration among community people, providers and policy makers in order to halt T2DM occurrence and progression.

Indigenous Peoples in Canada have distinctive identities with vibrant cultures and diverse traditions. Although there are many commonalities held by Indigenous Peoples, there is also a great deal of variation in beliefs and practices. These diversities in legal, cultural and social aspects

¹ This study has engaged Aboriginal Peoples of First Nation and Métis descent only due to challenges incurred recruiting Inuit participants.

become much more complex and heterogeneous among urban Aboriginal Peoples where Aboriginal Peoples of diverse origin and cultural orientation come together (Graham and Peters, 2002). The issue of diversity within and between the urban Aboriginal population groups warrants particular examination of their perspectives because Aboriginal Peoples are increasingly becoming urbanized (Statistics Canada, 2008; Reading, 2009). Moreover, a disproportionate segment of the urban Aboriginal population to rural or reserve population actually consists of status and non-status First Nations people and the Métis, who are considered in the existing literature to be a minor fragment of the population of Aboriginal Peoples in Canada (Newhouse and Peters, 2003). In reality this diversity in Aboriginal status to a greater extent regulates their access to federally funded health and social services in urban areas and can be considered a precursor of negative health outcomes such as diabetes. The difference does not refer just to the number of people belonging to different Aboriginal population subgroups, but also to their experiences as diabetic or non-diabetic First Nations and Métis persons; and, as well, to their resilience and coping strategies they have developed to prevent and manage diabetes in an urban setting.

This research has found that the Métis and non-status First Nations people often experience diabetes differently than status Indian people and, in addition, are often under-studied. The diverse levels of education and employment, access to culturally appropriate health services and, traditional and nutritious diet, and a legacy of colonization represent further heterogeneity amongst Métis and First Nations people; and can predetermine their susceptibility to developing diabetes. This study contributes to the limited corpus of information on this subject, but also chronicles, in their own words, the narratives of these marginalized population groups. The heterogeneity of First Nations and Métis perceptions about diabetes means preventive services for this disease need to be flexible to address the specific needs of these groups. Thus prevention and management initiatives that aim

to focus on areas of diabetes disparities in the diverse groups of First Nations and Métis people may hold the promise of improvement.

Purpose and Perspectives

This thesis aims to explore the perceptions of Métis and First Nations people, health service providers and policy makers in an eastern Ontario urban setting about susceptibility to developing diabetes. While much has been written on Aboriginal Peoples and health service providers' perceptions of the etiology and prevention of diabetes on reserves or in remote settings (Thompson et al., 2000; Vukic and Keddy, 2002; Minore et al., 2004; Denny, et al., 2005; Bhattacharyya et al., 2011), adequate documentation is still lacking about policy makers' experiences related to the susceptibility and prevention of diabetes among Métis and First Nations people in an urban context. Policy makers within the sphere of Aboriginal health continue to play a pivotal decision-making role in implementing new policy and guidelines from federal, provincial and local government levels as they relate to the diabetes related preventive and management service needs of urban First Nations and Métis people. Policy maker's perceptions along with health service providers are instrumental as they are likely to play important roles in the shaping and delivery of diabetes prevention and care for urban First Nations and Métis people. Moreover, the perceptions of those in decision-making roles surrounding diabetes in urban settings may be different from the perceptions of those who provide services on reserves or in non-urban and remote settings.

This research brings together the perceptions of three groups— First Nations and Métis people (both diabetic and non-diabetic), health service providers (HSPs), and policy makers. The First Nations and Métis peoples' understanding of diabetes encompasses much of their own experiences as patients, care givers, family members, friends, and community members (Kleinman, 1988; Gregory et al., 1999; Thompson et al., 2000), unlike the perceptions of care providers which are very contextual and positioned within a structured biomedical framework (Minore et al., 2004;

Denny, 2005; Bhattacharyya et al., 2011). Policy makers, on the other hand, understand and respond to a particular disease in light of their respective organization's mandates and priorities (Gortmaker et al., 2011). Limited awareness and understanding of each other's perceptions of diabetes may have consequences for potential misinterpretation among First Nations and Métis people, providers and policy makers (Montague, 2006). Therefore, this thesis sheds light on the existing knowledge gap that exists among all three groups in their understanding of the issue. Finally, it comments on key factors to improve communication among the three groups in order to contribute in prevention, care and management of this chronic disease. These factors align with the concept of self-determination of First Nations and Métis people as identified by the Royal Commission of Aboriginal People (RCAP) (1996).

Context and Research Questions

As mentioned previously, although over half of the Aboriginal Peoples live in urban Canada (Iwasaki and Bartlett, 2006), urban Aboriginal health issues have always been marginalized in research and policy domains (Young, 2003; Bartlett et al. 2007). The present study emphasizes the social conditions under which urban First Nations and Métis people live, how these conditions predetermine their health outcomes and how, by intervention in these social conditions, T2DM can be prevented, and by extension its care and management can be enhanced. Appendix 1 presents the study rationale in relation to the research questions listed.

The study investigates these questions:

- *How do urban First Nations and Métis people, health service providers (HSPs) and policy makers understand the likelihood of developing Type 2 diabetes?*
- *To what extent do First Nations and Métis community members and professionals' understandings of diabetes diverge or converge? How can better communications about their perceptions be developed among the three groups?*

- *To what extent (determined through elicitation of narratives from the interview transcripts) are their understandings reflected in existing diabetes prevention and management strategies?*

The objectives of this research are not only to contribute to the growing literature on Aboriginal health by sharing the narratives of Indigenous Peoples, providers and policy makers but also to inform existing T2DM prevention strategies in light of the perceived understandings from the real experts. In this study, the term 'prevention' refers to all three levels of prevention: primary, secondary and tertiary (WHO, 1994). Primary prevention includes activities aimed at preventing diabetes from occurring in susceptible populations or individuals; whereas secondary and tertiary prevention particularly refers to diagnosis, care and management of diabetes. Therefore in this study diabetes prevention refers to the actions necessary to halt the incidence of diabetes as well as the care and management activities needed to deal with its complications. These objectives also include the improvement of communication between Indigenous community members, health service providers and policy makers. The findings of this research can also be used as an advocacy tool on behalf of urban Métis and First Nations people to effect policy change. The findings will also be made available to the participating organizations, health centres, Friendship Centres, and Aboriginal research and service organizations that serve the First Nations and Métis populations and will contribute to evidence-based policy making that may subsequently affect service delivery.

Researcher in Context

A researcher must overcome a number of challenges in order to carry out a research project. One of the challenges of this research, in my view was negotiating how being a non-Aboriginal immigrant researcher of Indianⁱⁱⁱ origin would impact and influence the research process and its outcome. Undoubtedly, North American Aboriginal Peoples are overly studied, misinterpreted and misrepresented in research (Reading, n.d.). Negative and stereotyped portrayals

of Aboriginal Peoples have been central themes in imperial and colonial research attempts (Smith, 1999). Reluctance among earlier researchers to address socio-historical processes contributed to the marginalization of Aboriginal Peoples; placed them either as individual or community in terms of locus of a particular research concern. Indeed, Smith (1999; p. 92) maintained, “The word research is believed to mean, quite literally, the continued construction of Indigenous People as the problem.” The ‘Indigenous problem’ is a recurrent theme in colonial attempts to research Indigenous Peoples (Readings, n.d.). Smith indicated that “it originate[d] within the wider discourses of racism, sexism, and other forms of positioning the Other” (1999, p. 90). Consequently, discourses in this disciplinary approach did not make sense to Aboriginal Peoples, nor were investigations necessarily those that captured their interests or responded to their priority health needs. However, the community-based research approach that engages research participants from the inception of research ideas to the dissemination of research results has been largely favoured in the Aboriginal health research field as they provide a process of sharing power and benefits among researchers and community members (Fiske et al., 2001). Community-based research thus acknowledges the “need to balance individual and collective interests, respect for Aboriginal values, knowledge, methodologies and decision-making processes... that [engage] the Aboriginal and research communities” (CIHR, 2007, p. 12). The community-based research design adopted for the present study has positioned me well in this research undertaking, as I was always concerned about the “challenge of reciprocity” (Connolly, 2007) in creating meaningful research relationships and findings of the research that accurately represent interactions between research participants and the researcher.

My journey in Indigenous health research began well over a decade ago while working on my first Masters research in India with the Munda people, an Indian Indigenous tribe. During that time, I was greatly shocked and disturbed by the health inequities that existed within and between

the Indian Schedule Tribes,^{iv} including the Munda^v. After I moved to Canada and embarked on the field of graduate studies again, I realized that, although the geographic context had changed, the inequities in Indigenous population health were still visible in this part of the developed world. I again felt an urge to contribute to the reduction of inequities in health outcomes among Aboriginal Peoples through my second Masters and the present doctoral research. During my early graduate days in Canada, I was fortunate to have strong support and mentorship from notable Aboriginal scholars, researchers, community leaders, and front line workers that gave me the strength to move forward in this research field. I gradually began to interact with local Aboriginal research and service organizations. I became involved as a volunteer and a guest speaker with these organizations, took part in various events and community activities, and joined on-line communities dedicated to Aboriginal health research and service provision. My engagement with the local Aboriginal organizations and the various opportunities I had to discuss topics with urban First Nations and Métis community members enabled me to investigate deeply in order to gather detailed understandings of their health priorities. These formal and informal discussions also helped me to decide on my doctoral research topic, a health issue considered a priority by urban Métis and First Nations people.

In qualitative research, the evolving nature of the relationship between the researcher and the research participant(s) is largely shaped by the researcher's own characteristics such as ethnic origin, socioeconomic status, cultural orientation and gender (Ladson-Billings, 2003; Li, 2008). From the beginning of the research process to its end, I considered myself privileged to have had a role in this important work of sharing participants' narratives that might otherwise not be heard (Adams, 2008). Receiving wisdom, advice and blessings from the Aboriginal Community Advisory Circle (ACAC) throughout this research process have further strengthened the reciprocity between me as researcher, and the research participants. These interactions again led me to ask myself how do I

ethically represent the reality of participants' experiences in a manner that avoids disempowering, oppressing, or making them vulnerable. The answer is probably embedded in the need to carry out shared critical exchanges between the research participants and the researcher through emancipatory strategies such as narrative interviews, reflective questioning and listening and, most likely, by co-creating knowledge. Therefore, I advocate that the representation of peoples' narratives necessitates the need for a shared dialogue and a critical consciousness approach in order to conduct ethically sound research with them. Perhaps knowledge created in this type of interaction can take a mutually reciprocal and intimate form, so as to equalize the power distribution between the researcher and the research participants. Such interaction facilitate collaboration and engagement with First Nations and Métis participants; and thus aids in moving beyond the researcher's ethnicity, origin, cultural orientation and socio-economic and educational backgrounds.

My current status as an immigrant student and mother continually adjusting to new ways of life in a new country let me easily connect with research participants as fellow human being. In many instances during our opening discussions of narrative interviews, we shared similar life experiences. Those exchanges often were not directly related to this research topic; but helped us contextualise our discussion and, more importantly, helped to develop common ways of thinking among us. We could easily share our frustrations about the non-recognition of diversities among Aboriginal or immigrant people; as well as the limited recognition of health needs that are informed by these diversities. For example, when we had discussions on the issue of pan-Aboriginalism versus diversities in Aboriginal communities, several research participants passionately shared their feelings and frustrations with identities imposed on them by the Canadian government. They discussed why they wanted to be identified by their ancestral identity rather than the mandated term 'Aboriginal,' a feeling to which I could easily relate, as I have been labelled South Asian in this

part of the world when I am really of Bengalee^{vi} or Indian^{vii} descent. I believe that, based on our shared understandings, we were able to jointly create new knowledge, which captured the participants' perceptions and my own analytical interpretation of diabetes and its prevention. As a non-Aboriginal immigrant researcher, narrative interview discussions in this community-based research provided me with a venue to meaningfully engage with the research participants in producing a new form of knowledge.

Narrative interview discussion is meaningful from two perspectives: 1) I was privileged to hear from the Métis and First Nations community their lived experiences; and 2) they had opportunities to share those experiences that they might not otherwise have had. As Mattingly and Lawlor (2000, p. 12) said, "A rediscovery of voice is especially significant for those whose ethnic or racial background leaves them feeling particularly misunderstood, voiceless or overwhelmed..." Perhaps they feel their perceptions about their experiences are not important or they are afraid of sharing their experiences, which could be due to their being part of a socially marginalized community. Nevertheless, I believe that experiences need to be told and re-told. Narratives can help researchers, service providers and policy makers to understand those we seek to help in a way that nothing else quite does.

Outline of the thesis

This thesis is the result of narrative interviews that I conducted in the city of Ottawa, Ontario, with resident First Nations and Métis people with and without diabetes, and with health service providers, and policy makers. The study is both innovative and vital. It is innovative in the sense that no other study has looked at perceptions about diabetes in the urban context from the perspectives of First Nations and Métis people, providers and policy makers. It is vital in the sense that it lends greater insight into the prevention of this disease in a more culturally responsive way. The broad objectives taken by this research were primarily two-pronged: 1) to explore and expand

on the explanatory models of Type 2 Diabetes (T2DM) development from the perspectives of community members (urban First Nations and Métis) and professionals (Health service providers and policy makers) and, 2) to examine and inform existing diabetes prevention strategies in light of the perceived knowledge.

In the first chapter, I present the purpose and background of this study along with a reflective sub-section where I as a non-Aboriginal immigrant woman of Indian origin consider the ways in which the research affected me on a personal level, within the cultural context of researching with First Nations and Métis people. In Chapter 2, I present the literature review. Chapter 3 details theoretical and methodological frameworks. The methods that I applied to data collection and analysis are presented in Chapter 4. The themes emerged after data analyses are presented in Chapters 5 and 6, which speak to participants' experiences as Métis or First Nation diabetic or non-diabetic persons. I decided to present Métis and First Nations' perspectives separately for two reasons: first to respect the interest of my community partners as they wanted to have better understandings of community-specific perceptions and needs of diabetes from the findings of this thesis; and secondly to attest the problem with pan-Aboriginal approach in research and practice. I present understandings of diabetes as urban realities within the social context embodied by Métis or First Nations people; for they have experienced and continue to experience within their own landscapes, the marginalization, oppression and disempowerment inherent in the maintenance of their health and wellbeing. The narratives in Chapter 7 capture health service providers and policy makers' perceptions surrounding diabetes, together with their hopes and aspirations for halting the progression of this disease. In the last chapter (chapter 8), there is discussion of the themes, patterns, findings, recommendations, limitations and strengths, conclusion, and scope for future research that have come out of this research.

Terminologies Used

I use the terms First Nations and Métis people in the specific sense; wherever applicable, I also use the terms 'Aboriginal' and 'Indigenous' to denote collective identities. Today in many instances First Nations people are still referred to as "Indians," but I prefer not to use this term because of the misinterpretation associated with it. However, the term "Indian" was used in some cases to denote the legal representation of a specific groups of Aboriginal Peoples. Wherever possible throughout this thesis, I try to capture distinctiveness in First Nations and Métis perceptions. Often I also situate Métis and First Nations perceptions within the broader context of Aboriginal diabetes. I do so because many of the features associated specifically with these two groups are also applicable to Aboriginal diabetes in a much wider sense. The professionals who participated in this research are health service providers and policy makers of Aboriginal and non-Aboriginal descents. Health service providers are the physicians, nurses, dieticians, diabetes prevention co-ordinators, and diabetes educators who routinely interact with Aboriginal clients with diabetes. Policy makers include federal, provincial or local government and non-government officials who in their respective domains hold the decision-making power that informs and implements the strategies related to diabetes prevention. I have included a list of definitions of terminologies used in this thesis as Appendix 1.

Chapter 2: Literature Review

Diabetes among Aboriginal Peoples in Canada

Aboriginal Peoples (First Nations, Inuit and Métis) in Canada suffer more from numerous preventable health problems, including Type 2 Diabetes Mellitus (T2DM), than other Canadians. In spite of the significant progress in biomedical and medical sciences, Aboriginal Peoples are at elevated risk of developing Type 2 diabetes (Health Canada, 2001; Smylie, 2001; PHAC, 2005). The First Nations population living off-reserve is most affected by diabetes, followed by the Métis population. While less is known about diabetes among Métis people in Canada, we are aware that rates are in general comparable to, or lower than, the rates in First Nations people for most age-sex groups but higher than the general Canadian population (Health Canada, 2000; Bruce et al. 2003). A recent study (PHAC, 2011) indicates that the age-standardized rate of diabetes prevalence is 10.3% among First Nations people living off-reserve, and 7.3% among Métis, compared to 5.0% in the non-Aboriginal population. Another recent study by the Métis Nation of Ontario (2012) indicated that diabetes among registered Métis in Ontario is 25% higher than in the general population. There are few consistent significant gender differences in diabetes prevalence or outcome documented among Aboriginal Peoples as a whole (Thompson et al., 2000), but gender may compound various other aspects of inequalities (Spitzer, 2005) that have the potential for increasing women's susceptibility to developing diabetes. Thus, individuals belonging to more than one of these population groups may have increased susceptibility to the disease.

Spatial Diversity among Aboriginal Peoples in Canada

The urban Canadian landscape continues to change due to the shifting composition of its population. This shifting composition is also a reflection of federal and provincial policies regarding health, education, settlement and employment. For Aboriginal Peoples in Canada, there has been a

dramatic change in the proportion of people living in urban centres since the 1951 census (Peters, 2004). The 1951 Census of Canada showed that only 6.7% of Aboriginal Peoples lived in urban Canada (Peters, 2002), but by 2006², that proportion had increased to 54%; 43% of this number are Métis (Statistics Canada, 2008) and, as Newhouse and Peters projected in their 2003 publication that this number will continue to rise. Nine out of 10 Aboriginal Peoples, about 87% of self-identified Métis and 83% of total First Nations people live in Ontario and western provinces (Statistics Canada, 2008). In addition, 62% of the total Aboriginal population in Ontario lives in an urban area (Ontario Ministry of Aboriginal Affairs, 2012).

It is important to note the historical contexts of the increasing urbanization of the Aboriginal population (Peters, 2004; Newhouse and Peters, 2003). Many Canadian cities were built on land originally inhabited by Aboriginal People as settlements or gathering places. Various actions, including government policies, however, eventually displaced them from the land bases now known as Canadian urban centres (Peters, 2004). This demonstrates that the patterns of urbanization for Aboriginal Peoples and other migrants are not alike, although many Aboriginal Peoples may experience similar challenges and opportunities that other migrants living in cities face; many of them are in reality travelling or staying within their traditional territories (Browne et al., 2009). As Peters writes, “Many [Aboriginal Peoples] have expectations that their Aboriginal rights and identities will make a difference to the ways that they structure and live their lives in urban areas. The clarification of Aboriginal rights in urban areas; represents a major contemporary challenge for governments, both Aboriginal and non-Aboriginal” (2004, p. 3). Literature suggests that the lack of opportunities for education and employment, poor living conditions and lower socio-economic status, the need for specialist health services, the lack of access to adequate housing in reserve or remote rural communities, and an expectation of better living conditions in cities are the primary

² The 2006 census report has the most recent data on the Aboriginal population.

push and pull factors for urbanization among Aboriginal Peoples (Royal Commission on Aboriginal Peoples, 1993; 1996; Levesque, 2003; Newhouse and Peters, 2003; Peters, 2003).

While cities may attract Aboriginal Peoples because of greater health and social services, educational or economic opportunities, they also represent places in which many Aboriginal Peoples experience racism, poverty, marginalization and exclusion (Peters, 2004). Some common misconceptions surrounding Aboriginal Peoples in urban areas have been identified in various literatures (Peters, 2000; Newhouse, 2000, Browne et al., 2009): Aboriginal Peoples mostly live in poor neighbourhoods in urban areas; and urban areas represent a loss of culture and community for Aboriginal Peoples. This hybrid residence pattern, however, should not be understood as a failure to adjust to the city life, but an attempt to maintain a vital and purposeful community relationship (Lawrence, 2004; Peters, 2004). Also, persons who identify themselves as Aboriginal are increasingly found in various locations of the cities, showing that they are not always ghettoized in particular urban locations, but rather dispersed all over the cities. Newhouse (2000) and Peters (2004) argue that many Aboriginal Peoples are working to build culture and community in urban areas and, thus, urbanization is occurring alongside the reinforcement of cultural identities. Newhouse (2000) noted that Métis and First Nations people were reformulating Western institutions and practices to support their cultures and identities and to ensure their survival as distinct people in contemporary societies. This pattern has clear implications for mental, physical, and emotional health (Kirmayer, et al., 2000), which indicates that moving to urban areas poses a challenge to Aboriginal cultural identities, but it also presents an opportunity for dynamic and resilient innovations. These underlying factors that make up the urban context are important to recognize, in order to fully comprehend the complex and diverse patterns of health and wellness for urban First Nations and Métis people.

Legal Diversity among Aboriginal Peoples in Canada

The legacies of many prominent historical events continue to impact today's Aboriginal Peoples. The 1876 *Indian Act* is one of the federal government's many attempts to reinforce its power over the First Nations people in significant ways, even though the Act's stated intention was to protect the rights and privileges of the first people in Canada. The *Indian Act*, although amended over the years, remains a central fact in the lives of Aboriginal Peoples as it creates the categories of 'status' versus 'non-status' distinctions among First Nations people (Sawchuk, 2001). Métis people, however, were 'enfranchised', that is, they lost legal Aboriginal identity as constituted under the amendment to the *Indian Act*, which began with the enfranchisement of Indian women who married outside of the Indian nation (NCCA, 2011a). These regulations, notably, further reinforced the legitimacy of tracing heritage solely through male descent. Thus, the *Indian Act* directly or indirectly regulates to this day many aspects of the Aboriginal Peoples' lives including their access to health services. Additional discussion on colonial attempts to devalue geographically, linguistically, and socio-culturally complex and heterogeneous identities of Aboriginal Peoples is presented in the Chapter 3.

A change to the Constitution Act of Canada in 1982 represented another major historical event that has had a significant impact on the lives of Indigenous Peoples in Canada as it recognised the First Nations, Métis and Inuit as three distinct, Aboriginal population groups in Canada. In Canada, First Nations refers to the people whose ancestors were the first occupants of North American land (Wotherspoon and Satzewich, 1993). Under the *Indian Act*, First Nations people can be referred to as either 'registered' or 'status' First Nations people if they are registered with the federal government (INAC, 2010), whereas First Nations people not registered are called 'non-status' First Nations people. 'Métis' refers to the descendants of French, Scottish or English traders and First Nations women. The terms 'status Indian' and 'non-status Indian' that resulted from the

Indian Act have created deliberate political and administrative divisions among First Nations people. Notably, the government does not recognize non-status Indians people as having distinct political or legal entitlements including those 'enfranchised' (for example, Métis) as Canadian citizens who thereby lost their Indian status. "Inuit are separate from the registered Indians, and there is no legislation comparable to the *Indian Act* defining them," Waldram (2006) says. However the federal government take up primary responsibility for Inuit people and provides or delegates many services to them as if they were registered Indians (Waldram, 2006).

These differences in the legal status of Aboriginal Peoples determine, among other entitlements, the nature and scope of the health services offered. Aboriginal health provisions can be traced back to the implementation of the *British North America Act* (BNA), also known as the *Constitution Act* (1867), nine years before the creation of the *Indian Act* (1876). The *BNA Act* created ambiguity over Indian health that still exists today by defining health services as a provincial jurisdiction and Indian Affairs as a federal one. Although the subsequent implementation of the *Indian Act* included health related provisions, the lack of clarity in this provision of the *Indian Act* failed to provide clear legislative authority to the federal government for Indian health services (National Collaborating Centre for Aboriginal Health [NCCA], 2011a; 2011b). Today, the First Nations and Inuit Health Branch (FNIHB) of Health Canada oversees the federal government's role in the provision of health services for status (registered) First Nations people on reserves and Inuit living in their traditional territories (Health Canada, 2008). FNIHB also provides non-insured health benefits (NIHB) such as prescription drugs and vision and dental coverage to all status Indians and Inuit, regardless of their place of residence in Canada. Métis and non-status Indians, however, are not eligible to receive non-insured health benefits, although physician and hospital care is provided by provincial and territorial governments (Health Canada, 2008; NWAC, 2007; Waldram et al, 2006). The fact that Aboriginal Peoples in urban areas are not homogeneous with respect to legal status

has implications for their access to various forms of health services and the degree to which different approaches meet cultural needs in the city.

Cultural Diversity among Aboriginal Peoples in Canada

Aboriginal Peoples in Canada have extraordinary variations in their lifestyles, traditions and cultures, and as such there is no single culture or tradition that represents all Aboriginal Peoples; although there are many commonalities in cultural practices and belief systems held by Aboriginal Peoples. Traditionally, Aboriginal Peoples existed within early relationships with the Creator, were based in defined territories, and were distinctive in knowledge, language and culture (Henderson, 2007). Today, however, Aboriginal Peoples are not confined to a set spatial context; rather, they are dispersed in different urban regions, provinces or territories in Canada. For example, in Ontario only according to 2006 census (Statistics Canada, 2008), eighty percent of Aboriginal Peoples live in urban areas. There are two main language groupings in Ontario: Algonkian and Iroquoian (Ontario Ministry of Aboriginal Affairs, 2012). Besides the First Nations cultural differences, there are the Métis people, who have two distinct cultural origins, and the Inuit people. Aboriginal Peoples in urban Canada form complex and heterogeneous cultures that are a mix of different Aboriginal sub-cultures and influences from rural reserves or urban livelihoods.

Aboriginal Peoples are economically and educationally diverse as well; some have opportunities of achieving better education and secured income from employment or other resources, while others have very limited or none (Environics Institute, 2010). This is particularly the case where higher education has been available to help them feel more empowered in part by expanding their knowledge of their Aboriginal heritage and identity, or for those who are less affluent pursuing higher education is the leading life aspiration. Geographic diversity also makes Aboriginal lifestyles different. Some Indian reserves are located in the vicinity of the larger cities (for example, Six Nations on the outskirts of the City of Toronto), while other communities are isolated

and accessible only by air or water. Moreover, there are significant diversities within each community. Language, cultural, ceremonial, traditional teachings and knowledge systems are some of the examples of these diversities. These communities will necessarily have different health priorities specific to the needs of their own people (Voyageur and Caillou, 2000; 2001).

Ongoing jurisdictional conflicts between federal and provincial governments over their responsibilities for urban Aboriginal programs present distinct challenges for both developing and sustaining health services and advocating for Aboriginal needs. It is therefore likely that the particular health service needs of urban Aboriginal Peoples are largely unmet to varying degrees across the nation (Boyer, 2004). Although Aboriginal diversity spans over language and cultures, the most significant distinction for health research are the legally-imposed definitions as differences in legal statuses of Aboriginal Peoples determine their entitlement to the health benefits offered for Aboriginal Peoples.

Health Research Involving Urban Aboriginal Peoples

Most of the research related to Aboriginal Peoples has been conducted in rural or reserve settings and with people of First Nations descent (Bartlett et al. 2007). As stated above, First Nations people account for 50% of urban Aboriginal populations, while 43% are Métis in Canada (Statistics Canada, 2008). According to 2006 census, 62% of Aboriginal Peoples in Ontario live in urban areas. Despite their increased presence in cities and despite the increasing incidence of diabetes, Métis people in Canada (Bartlett et al., 2004) have received relatively little attention among Canadian health researchers and policy makers (Young, 2003; Bartlett et al. 2007). The increased urban migration trends among Aboriginal Peoples in Canada, often characterised by a hybrid³ residence pattern, (Lawrence, 2004; Peters, 2004), which demands an analysis of this influence on their health

³ 'Hybrid living' is the practice of moving back and forth between two places on a regular basis to maintain strong ties with rural and or reserve communities

outcomes. Unfortunately, these people face a range of barriers in accessing the necessary prerequisites for positive health outcomes from poverty and discrimination to a lack of housing and culturally-appropriate preventive health care services (Betancourt et al. 2003; NAHO, 2005a). The Aboriginal Health Human Resources Initiative (AHHRI, 2004) acknowledges that there are challenges unique to each of the Aboriginal groups (First Nations, Métis and Inuit). Increasing chronic conditions, such as Type 2 diabetes, among the urban First Nations and Métis population also greatly impacts health care resources in Canada (NAHO, 2005a; Pohar and Johnson, 2007; Ministry of Health, 2007).

Explanatory Models of Type 2 Diabetes

Aboriginal Peoples experience earlier onset of Type 2 diabetes, greater severity at initial diagnosis, higher rates of complications, lack of accessible services, and increased susceptibility to developing this illness (PHAC, 2011). Historically, the public health response or strategy to prevent and control chronic diseases like T2DM has focused on fixing the patient by addressing behavioural and lifestyle risk factors, such as poor diet or physical inactivity (Schulz et al. 2005; Leandris et al. 2005). Unfortunately, the overall improvement in behaviour and lifestyle risk factors related to chronic disease is limited to certain population groups, such as that have adequate material resources to manage their basic needs or have equitable access to health services. Chronic disease such as diabetes, therefore, is still a growing cause of mortality and morbidity among marginalized populations, such as the Aboriginal population in Canada (PHAC, 2005). Due to the limited success of patient-centred and high-risk chronic disease prevention and management, a growing body of literature has raised concern about the potential impact of such interventions and indicates that socio-contextual factors may help to explain the disparity in chronic disease prevalence and incidence across varied population groups (Nettleton and Bunton, 1995; Coburn, 2000; Norris et al. 2002; Kuh et al. 2003). For example, ethnic origins, socio-political and historical contexts, social

class, and gender tend to be ignored in favour of traditional biomedical factors; because the effects of these socio-contextual factors are omnipresent, institutionalized, unpredictable, and largely unavoidable (Leandris et al. 2005; WHO, 2005; 2008). Yet, these factors and peoples' perspectives about their likelihood of developing diseases continue to be largely ignored in the face of increasing incidences of certain diseases among marginalized populations. In this respect, an alternative perspective that encompasses a role for social determinants of health (SDOH) is needed to focus on the interactions of various determinants, rather than treating these factors in isolation.

Population Health Approach in Aboriginal Peoples' Context

The study of population health highlights inequalities in health outcomes, considers why some people are healthier than others (Evans et al., 1994), and urges health research to consider dimensions outside of health care (Frank, 1995). This approach also suggests that population-level determinants can indirectly influence individual-level determinants through various intermediaries (Epp, 1986; Evans et al. 1994; Frank, 1995; Federal/Provincial/Territorial Advisory Committee on Population Health, 1999; Etches et al., 2006). For example, those intermediary factors include material circumstances, such as neighbourhood quality, housing and employment conditions etc. People belonging to lower socio-economic groups mostly live in less favourable material circumstances than higher socio-economic group; consequently experience disparities in health outcome. Along with these material circumstances there are also other intermediary factors such as psychosocial factors including stressful living conditions, lack of social support, and coping styles etc. Disadvantaged people experience far more uncertainty and stressful events in their life courses that directs many forms of illness at the individual level. The unequal distribution of these intermediary factors constitutes significant pathways through which many population level determinants influence individual level determinants and thus generate inequities in health outcomes.

Even though various frameworks in the population health field differ in their approach to health and well-being, their discussion of health tends to focus on the importance of social conditioning. For example, people of low socio-economic status, living in urban areas without any family support tend to eat more pre-packaged, non-nutritious food and thereby become at risk of developing many chronic diseases. Population health strategies targeted at personal health practices must therefore focus more on up-stream determinants and social conditions, and less on individual factors. Along the same line, studies (Raphael, 2006; Reading, 2009) indicate that disease, disability and death are influenced by individual-level risk factors (such as smoking, obesity, substance abuse etc.) that are socially embedded in the collective lives of families, communities, regions and nation-states.

The population health approach focuses on the intersecting role of factors related to diversity in populations, such as poverty, unemployment, food insecurity, housing and social support, which are again framed under social determinants of health (SDOH) (Evans and Stoddart, 1990; Evans and Stoddart, 2003). The social determinants of health approach can play a significant role in informing the existing individualistic behavioural risk models and in drawing attention to the intersecting exposure of various determinants to the vulnerability of developing a disease (Reading, 2009). This approach expands on the conventional lifestyle models of disease risk by recognizing that socio-political as well as the biological factors can affect a diverse range of health outcomes (Kuh et al., 2003). The SDOH approach is also compatible with Aboriginal conceptions of health and well-being, in which interconnectedness and holism are keys to healing and health care (Durie, 2004). Studies reveal that the physical, emotional, mental and spiritual dimensions of health among Aboriginal Peoples are differentially influenced by a broad range of social determinants on a continuum from past to present that influence the development and maintenance of a health trajectory for Aboriginal Peoples (Wilson and Rosenberg, 2002; Adelson, 2005; Waldram, et al.,

2006). Thus, conceptualizing and understanding the susceptibility of developing Type 2 diabetes through social determinants of health approach broadens the scope of factors to be considered beyond the proximal level (Travers, 1996; and Cheadle et al., 1991 in Schulz et al. 2005). In the context of understanding the health disparities among urban First Nations and Métis people, there are many varied and interrelated determinants, the majority of which are entangled in unequal power relations between these groups and the government and in the history of colonization (Kelm, 1998; Adelson, 2005; Waldram et al. 2006). To understand the unique situation of First Nations and Métis people in urban Canada, and to reduce health inequities specific to these population groups, it is essential to identify the determinants of health that are specific to urban First Nations and Métis people in Canada. For urban Métis and First Nations people in particular, addressing health issues means proceeding via a holistic approach that encompasses the physical, mental, emotional and spiritual domains with their family, community and other relationships, social settings and interactions (Bartlett, 1998; NAHO, 2008). For instance, spirituality, relation to the land, and identity are often connected within ideas of overall health, meaning all need to be incorporated into a framework for determinants of health (Nettleton et al., 2007). It is therefore important to understand from community members and professionals how the underlying cross-cutting determinants influence health outcomes.

The determinants of health for First Nations and Métis people in urban centres cannot be understood in isolation from the backdrop of colonial relations that continue to shape disparities in access to health care, health care experiences, and health outcomes (Browne et al., 2005; Browne and Varcoe, 2006). Dion-Stout et al., (2001) and Adelson (2005) suggest that the inequalities in health between Aboriginal and non-Aboriginal Peoples today are linked to the impacts of colonization and the historical trauma that resulted from systemic racism, cultural genocide and assimilation policies. For example, Aboriginal Peoples identify the legacy of residential schools, and

the associated separation from their families, as an act that has contributed to their poor health status today (CIHI, 2004). Aboriginal Peoples, in particular are often marginalized when accessing westernized health care services (Benoit et al., 2003). When Aboriginal Peoples access health services, their concerns are often ignored or disregarded. Lack of awareness among health care professionals about the impact of historical-colonial policies and practices on Aboriginal Peoples' lives make them less able to contextualize how Aboriginal Peoples perceive health, well-being and health care structures; consequently affect the interaction between patients and health care professionals (Smith et al., 2005). Further discussion about impact of historical colonial policies on Aboriginal Peoples' health is presented in chapter 5 and 6 of this thesis. Unless explicit connections are made between high rates of Type 2 diabetes and wider social and historical determinants of health, it is easy to overlook the intersecting conditions that influence the high prevalence and incidence of Type 2 diabetes among Aboriginal Peoples (Farley and Lynne, 2002; Raphael et al., 2003; Raphael, 2004).

Limitations in Existing Prevention Strategies

Literature states that the rising incidence of diabetes among Aboriginal Peoples questions the efficacy of the current disease prevention paradigm (Parlee et al., 2007). Some time ago, Young and his co-authors (2000) revealed that effective populations-specific primary prevention⁴ programs for Aboriginal Peoples were lacking, which still is the case for Aboriginal Peoples in Canada. An inventory of existing diabetes prevention strategies (Appendix 21) and a review of literature on risk factors of type 2 diabetes (Ghosh and Gomes, 2011) reaffirms that prevention of T2DM is still confined within the biomedical regimen of screening for diabetes risk factors, such as diet, obesity,

⁴ The World Health Organization (WHO, 1994) classifies diabetes prevention into three levels: primary, secondary and tertiary. Primary prevention includes activities aimed at preventing diabetes from occurring in susceptible populations or individuals; secondary prevention includes early diagnosis and effective control of diabetes in order to avoid or delay the progress of the disease; and tertiary prevention includes measures taken to prevent complications and disabilities due to diabetes.

physical activity, and genetic predisposition, and thereby rely on diabetes education, and life-style modification. It is therefore necessary to rethink the applicability of existing intervention models from the perspectives of local communities and professionals (Daniel and Green, 1999; Daniel et al., 1999; and Kirmayer et al., 2000). Adelson (2000) and Crawford (1985) argue that improving the applicability of health care and health service requires rethinking the meaning of “health” along with the medical practice. Adelson (2000) further called for liberating “health” from the disease-centered biomedical paradigm to a broader framework that extends well beyond physical health and sickness.

My past experiences of undertaking the Master’s thesis project on antecedents and consequences of Type 2 diabetes with a group of urban First Nations people in an eastern Ontario setting revealed that their understandings about the development of diabetes were extended well beyond the immediate or proximal individual-level risk factors of Type 2 diabetes as identified in the biomedical paradigm. Their understandings included the legacies of the residential school system, intergenerational trauma, racism, poverty, lack of self-esteem and many other issues in the contemporary context (Ghosh, 2004; Ghosh, 2012a). Therefore, to bridge the gap between the professionals’ and the community people’ understandings of likelihood of developing of diabetes, a respectful and understanding dialogue must be initiated between representatives of the affected communities, policy makers, and service providers.

Conceptualization and Communication of Explanatory Models of Type 2 Diabetes

People’s experiences of illness are constructed through a complex web of personal experiences and belief systems ingrained in their cultural and social world. People develop their explanatory models through their conceptualization of the causes, course and consequences of their illness. People’ understandings of vulnerabilities are filtered through a web of beliefs that

reflect a mix of knowledge, misinformation, ignorance, and, to some extent, fatalistic attitude. These “lay understandings,” as framed in the literature, are critical to the communication of explanatory models of illness, as they may be quite different from scientific understandings of individualistic risk factors. Thus, communicating and exploring beyond the traditional biomedical individualistic risk factors can help build trust between the community people and professionals; and can lead to an effective and improved service delivery and health outcome (Green et al., 2002; Gurabardhi et al., 2004).

The majority of the research on peoples’ understanding of diabetes as an illness revealed a multidimensional picture of disease and the symptoms associated with it: causes (including factors leading to the onset of the sickness), consequences, timelines or beliefs about the course of disease, coping methods, and finally, the cure or prevention of the disease (Cohen et al., 1994; Allan, 1998; Hornsten et al., 2004). In spite of the significant pluralism in Aboriginal Peoples’ understandings about the development of diabetes that is identified in the present literature (Giles, et al., 2006; and Loppie- Reading and Wein, 2009), a limited number of studies investigated the perceptions surrounding the susceptibility to developing diabetes from urban Aboriginal Peoples’ (Métis and First Nations people) perspectives.

As noted above, health service providers and policy makers’ understandings of diabetes risk is based on the prevention of individual level biomedical risk factors, however prevention of diabetes for Aboriginal Peoples must take a broader perspective. Some time ago, the Royal Commission on Aboriginal Peoples recommended that less emphasis be placed on diabetes as a disease entity and more emphasis be placed on the social, economic, and political factors that influence health outcome (RCAP, 1996). Today, policies regarding the prevention of individual-level,

modifiable biomedical risk factors⁵ (diet, obesity, etc.) for a particular urban Aboriginal community, therefore, must take a broader perspective to address intermediate and distal determinants of health that contextualize the individual's understandings about the development of diabetes. Inequalities in incidence and prevalence of diabetes among various Aboriginal communities have drawn significant public policy attention and resulted in the adoption of various culturally-appropriate, community-based diabetes intervention programs to reduce this epidemic (Macaulay et al., 2003). A number of studies have demonstrated the feasibility of implementing diabetes prevention programs in Aboriginal communities, and the outcomes of these prevention strategies have shown positive results to a certain degree (Himes et al., 2003; Macauley et al., 2003). These prevention programs demonstrated that intervening with community-based approaches and community mobilization that is congruent with the worldview of Aboriginal communities to increase health benefits across the community may provide improved outcome in the long run (Macaulay et al., 2003). Later in the recommendations section of the chapter 8, I discussed the reasons for success of these community-based diabetes prevention programs.

As indicated before perceptions of those who undertake policy and decision-making roles on T2DM in urban settings may differ from those with experiences providing services in non-urban, reserve or rural settings. Community peoples' understanding of T2DM is personal and encompasses a great deal of their personal experiences as patients, caregivers, family members, friends, and community members. Literature reveals that medicalization of human health problems forces the health providers and policy makers to offer quick and medicalized fixes for what are really complex, multifaceted social problems (Conrad and Barker, 2010). Limited awareness and understanding of each other's perceptions of T2DM may have consequences for potential miscommunication

⁵ According to the biomedical paradigm, risk factors for T2DM are classified in two categories: modifiable and non-modifiable. Modifiable risk factors are preventable or controllable as opposed to non-modifiable risk factors.

between 'people,' 'providers' and 'policy makers' (Montague, 2006). This thesis, therefore, presents a discussion on the current knowledge of type 2 diabetes and its prevention among First Nations and Métis populations living in urban Ottawa, an Eastern Ontario setting. The study also encapsulates health service providers and policy makers' understandings of the same from their professional view points. It illuminates the existing knowledge gap between people, health service providers and policy makers' understandings of diabetes, and comments on key factors to improve communication among community people, health service providers and policy makers. In the same line of thought Royal Commission on Aboriginal Peoples' recommendations are quite pertinent (RCAP, 1996). RCAP emphasized that the health knowledge that is grounded in the values, beliefs and experiences of Aboriginal communities must be effective and empowering; and lead them to achieve control over their own health. RCAP (1996) recognized that Aboriginal capacity building in health services and control over determinants of health in the communities is clearly linked to the assertion of Aboriginal Peoples' rights to self-determination.

Chapter 3: Conceptual and Methodological Frameworks

Section 1: Conceptual Frameworks

In this chapter, I present the conceptual and methodological approaches underpinning my investigation of the perceptions surrounding diabetes. The existing knowledge has the potential to inform health research, policy, and practice affecting urban First Nations and Métis people.

Increasingly, however, the need to pay closer attention to the inequities among Aboriginal health that are caused by broad and distal determinants is challenging researchers and activists to seek alternative conceptual frameworks that can explain how structural and systemic determinants overlap and intersect with one another. An emerging paradigm for population health research is intersectionality. Intersectionality places an explicit focus on the differences between groups and seeks to illuminate various interacting social factors that affect human lives, including social locations, health status, and quality of life (Hankivsky et al., 2010). Thus, persistent disparities between Aboriginal and non-Aboriginal health can be best understood by an intersectional approach that accounts for social determinants of Aboriginal population health, from the forced construction of Aboriginal socio-cultural identities, colonial history and forced relocation to contemporary food insecurity, lower education levels, employment and income insecurity, and differential access to health services (Greenwood and Leeuw, 2011, Loppie-Reading and Wein, 2009).

Coined by Crenshaw (1989), the term “intersectionality” has long history in the field of social sciences. Intersectional approach is yet to be fully employed with reference to Aboriginal Peoples. Given the newness of this theory, the relative underutilization of intersectionality in the Aboriginal health field is not surprising. On the other hand with the increased development and application of intersectionality across the social sciences, however, its relevance to Aboriginal health

research is becoming more evident (Greenwood and Leeuw, 2011). The topic under investigation demonstrates the potential of intersectional approach for examining the diverse contexts of First Nations and Métis peoples' lives that influence the development of diabetes. An intersectional approach can also inform the development of methods which elucidate power structures, create knowledge and have the potential to inform appropriate action strategies to reduce inequities in health outcomes among First Nations and Métis people (Hankivsky et al., 2010).

Social Determinants of Health and the Intersectional Approach

Health as being socially determined is an idea that has garnered considerable attention in the field of population health. Understanding the health of people through a social determinant approach means considering the structures and systems within which people are born, grow, work and live as opposed to comprehending their health separately from their social-cultural, political and historical contexts (Marmot et al., 2008). Indeed, the social determinant approach has been described as research that moves health thinking from “the cell to the social” and as a practice of investigating the “causes of causes” (Raphael, 2009; Marmot, 2007). Social determinants of health shift the focus of health and well-being from a biomedical investigation of an individual's susceptibility to certain health disorders to an understanding of health as a result of their social contexts (Reading, 2009). This understanding merges with the theory of intersectionality to comprehend the roles of physical location, class, race, gender, and income in the persistent inequities in the health of Canadians (Hankivsky and Christoffersen, 2008). Social determinants of health, as identified in the literature, include employment and working conditions, education, literacy, income and social status, social support networks, culture, and gender, among others (Raphael, 2004; Marmot, 2005; PHAC, 2011). Although the social determinants of health approach may be associated with an overall improvement in population health, it often makes use of static conceptions of ‘subgroups’ and concomitant ‘risk factors’ and pays little attention to lived

experiences. As a result there may be gaps between understanding social contexts of health and affecting meaningful changes in the health outcomes of those situated at intersecting axes of disadvantage (Fiske and Browne, 2008; Paterson, 2010; Hankivsky, 2012). These shortcomings could be accounted for inexplicating the *relationality* of such determining factors and the ways in which they connect and operate.

Extending beyond the social determinants of health framework, intersectionality focuses on a variety of multi-level intersecting social locations, forces, factors and power structures that shape and influence human health and well-being (McGibbon and McPherson, 2011; Hankivsky, 2012). The intersectional framework thus recognizes the plethora of structural and social factors that affect health and does not automatically give primacy to any one factor (e.g. socio-economic status) in analysing the health of people or populations. Intersectionality also provides a way to address the complexities of othering – namely, the ways in which difference is produced. Thus, rather than thinking in terms of single binaries of Aboriginal- non Aboriginal, men-women, status-non-status, an intersectionality framework addresses variations within and between such binaries. And as such, it moves away from the individualization of difference. This framework pays attention to lived experiences that are often constant aspects of the analysis; in other words, an intersectionality framework challenges the homogenization that often occurs in the study of social groups, and it shows that differences exist not in isolation but in relation to other socially produced differences (Hankivsky, O. & Christoffersen, A. (2008). Most importantly, intersectionality framework places context at its centre, thereby highlighting the significance of historical, social, cultural, economic and political patterns and the particularities of time and space, as well as the implications of these commonalities and differences for social life (Fiske and Browne, 2008; Paterson, 2010; Hankivsky, 2012). Finally, power is a central theme of the intersectional analysis, not only in terms of multi-constitutive axes of oppression, but also in terms of interacting modes of productive power and

resistance. For Aboriginal health, the social determinants of health approach makes an important contribution, yet unlike an intersectional analysis, it often focuses on single or additive dimensions of social conditions, considering them as static and fixed categories. The following subsection presents the utility of intersectional approach for extending analysis of intersections of social determinants of Indigenous health.

Intersectional approach, Social Determinants of Health and Indigenous Health

Many of the challenges that Aboriginal Peoples face today are best understood through both intersectionality and social determinants of health approaches (McGibbon et al., 2008; Greenwood and Leeuw, 2011). In particular, this demonstrates the differential and complex nature of marginalization experienced by diverse Aboriginal Peoples, such as higher rates of food and housing insecurity, higher rates of job insecurity, lower rate of health care utilization, and disproportionately higher rates of chronic and infectious diseases (Reading et al., 2007, Richmond and Ross, 2009). These social realities, in various forms and degrees, are lived differently as individual realities by diverse Aboriginal Peoples based on their social locations such as class, socio-economic status, and legal status. Moreover, with the changing social locations of individuals, these determining factors are likely to shift and can impact health in many ways.

Many of the inequities in Aboriginal Peoples' health, despite its historical roots, is constantly re-enacted in contemporary political situations when Aboriginal Peoples' health is continually stereotyped and marginalized in systemic and policy decisions (Anderson and Domosh, 2002). For example the very act of naming Indigenous Peoples collectively as 'Native' or 'Indian' and lately as 'Aboriginal' is one of the many forms of complex and continued colonial attempts to disregard the diversities within and between Indigenous Peoples in Canada. This act of inscribing on them a collective name was nothing but a Eurocentric misconception that people who were not colonial

settlers were the members of a homogeneous and static “other” group (Greenwood and Leeuw, 2011). Broadly speaking, this colonial assumption of Indigenous Peoples as a homogeneous group was in reality an attempt to devalue their geographically, linguistically, and socio-culturally complex and heterogeneous identities. Moreover, this derogatory classification had and continues to have connection with legal and government entitlement for health and social services for Aboriginal Peoples. Besides this colonial nomenclature, Indigenous Peoples experienced many other colonial concepts, such as displacement and deterritorialization across Canada; some of these displacements were the results of treaty negotiations, while others were forced relocation (Harris, 2002). Residential schooling led to one such forced relocation of many Aboriginal children from their families, communities, lands and cultures, and has been recognized as having profound intergenerational health implications in the literature (Milloy, 1999; Partridge, 2010). Early colonial attempts and concepts of indigeneity, geography, socio-economic status, class and culture all intersected with each other to produce unhealthy or differentially healthy Indigenous Peoples in Canada in the twenty-first century. Differences in health status among Indigenous Peoples in Canada and communities are an outcome of intersecting but interconnecting factors; and these factors are also determined by the unique ways in which they are embodied at the individual and collective levels. The intersectionality lens takes these elements into consideration when trying to understand Aboriginal Peoples’ state of health today.

Jurisdictional squabbles continue to hamper the health and well-being of many Indigenous Peoples in Canada. Differential access to Non-Insured Health Benefits is an ongoing confusion for many Indigenous Peoples (Legal Service Society, 2007). This differential access to Non- Insured Health Benefits (NIHB)^{viii} is rooted in historical classification and categorization of Indigenous Peoples across Canada. The Non-Insured Health Benefits Program is the Federal Government’s national health program that provides coverage for a number of health-related goods and services

that are not insured by provinces or territories or other private insurance plans to support status Indians and Inuit people in reaching an overall health status comparable with that of other Canadians (Health Canada, n.d.). The life experience of a status Indian person living on-reserve and accessing Non-Insured Health Benefits differs greatly from that of a First Nation person not holding a status card and living off-reserve or in an urban area. At the embodied level, this means that some individuals are able to afford medications associated with diabetes or chemical strips for monitoring blood glucose, whereas others cannot. This disparity in peoples' ability to access non-insured health benefits is quite obvious and its linkage to historically produced categorizations of Indigenous Peoples is clear because these categorizations have marginalized them.

When more distal determinants of Indigenous Peoples' health and well-being are accounted for, the consequences of colonial practices on Indigenous Peoples become prominent. In today's increasingly urbanized landscape with more centralized services in cities, Indigenous Peoples face the difficult choices of accessing services in the city and living far from social networks and families, which can be a source of stress (McGibbon et al., 2008). Both social networks and physical locations for Indigenous Peoples have deep roots, and these roots determine access to education, employment, and health services; all of which are determinants of health and well-being. As is consistent with the theory of intersectionality, living with different levels of education or employment options, and access to health services plays out differently for Indigenous Peoples of diverse origins. The health and well-being of Indigenous Peoples and by extension the families, communities and populations they comprise, are complex phenomena; produced by degrees of power and domination of Indigenous Peoples under colonialism. Indeed, to understand health or the lack of health requires moving away from a biomedical or behavioural understanding of health into the realms of historical impositions of colonial power. The imposition of colonial power and the formulation of Indigenous Peoples' identities show that their health is socially determined and

deeply intersectional in nature, and illuminates the reasons behind persistent disparities in Indigenous health in Canada.

The population health approach focuses on the intersecting role of factors related to diversity in populations, such as poverty, unemployment, food insecurity, housing, social support and others, which are framed under social determinants of health (Evans and Stoddart, 1990; Evans and Stoddart, 2003). The term 'determinants of health' has emerged to reflect the fact that health of a population is broadly influenced by a wide range of social and economic factors. Therefore, disease prevention and policy implications must not be limited to biomedical proximal risk factor approaches (Wilkinson and Marmot, 2003; Raphael, 2007). These findings point to the need of examining the intersections between these determinants of health as they affect population health outcomes, access to health services, and the development of chronic diseases. Determinants of First Nations and Métis population health have to consider the complex interplay between different precursors of health operating at different levels across the lives of a population, and in the context of urbanization (Raphael, 2007; Bierman et al., 2012). Since, social determinants of health may be distributed differently, and affect inter- and intra-group population diversity differently, the need to consider intersectional analysis is essential. An intersectional approach seeks to examine the ways in which socially constructed categories emerge at intersecting levels within multiple levels of power that result in sustained inequalities (Hankivsky and Christoffersen, 2008).

Intersectionality in its Newest Form

There is a growing agreement that researchers employing intersectional approach need to move beyond the conceptual arena of gender, race and class to encompass other dimensions of inequality such as physical location, identity, poverty, culture, religion (Siltanen and Doucet, 2008; Black and Veenstra, 2011). Although these have already been incorporated in a number of intersectionality research projects, the majority of research in the field continues to focus primarily

on gender, race and class (Black and Veenstra, 2011). This investigation of diabetes precursors incorporates relatively unexplored dimensions of pluralities within and between First Nations and Métis identities that are created by a range of systemic determinants such as poverty, employment, stress, food insecurity, education, and access to health services, Aboriginal status, and jurisdictional squabbles. I consider these 'pluralities' because I anticipate that peoples' experiences of systemic determinants vary within and between First Nations and Métis people and their respective social locations. For example, the experiences and social interactions of a status Indian diabetic person living with secure employment, higher education and necessary material resources may largely differ from a non-status Indian diabetic person living on the street with minimum formal education, who relies on drop-in centres or food-banks on a day-to-day basis. Some of the interpersonal experiences again may vary between status Indians and Métis people because of their varied access to government-funded health services. We also note that many studies have found that diversity within and between First Nations and Métis populations result in different exposures to the contextual stressors for chronic health conditions, such as diabetes (PHAC, 2005; Peters, 2006; Reading et al., 2007; Smylie, 2009). From people, providers and policy makers' narratives, I sought to determine how this particular dimension of contextual stressors intersects with other dimensions in diabetes occurrence, prevention and management; and if these inequalities are being addressed in health service delivery and policy development.

Delimiting Population Health

While developing my research proposal, I discovered literature (Smith, 1999; Gregory et al., 1999; Hornsten et al., 2004; Iwasaki et al., 2004; Minkler, 2005; Heuer and Lausch, 2006, Iwasaki and Bartlett, 2006; Bartlett, et al., 2007; Barton, 2008) related to peoples' lived experiences of structural conditions and its successive role in creating 'healthy' or 'unhealthy' people. I began to think and contextualize the contexts of human problems from their macro to micro determinants.

With a few exceptions, particularly in a research methods course, core courses in population health drew primarily on epidemiology, nursing, and health sciences; and depicted visual representations of evidence, arguments and formulae in flow charts, frameworks and models that did not give me enough opportunity to consider the lived realities that impact peoples' health. For example, until I discovered the literature in Indigenous health (Smith, 1999, Bartlett et al., 2010), intersectionality research (Weber and Para-Medina, 2003; Hankivsky, et al., 2008), and community-based research (Hornsten et al. 2004; Minkler, 2005; Heuer and Lausch, 2006), I had limited understanding and tools to adequately explore the structural conditions that contextualize peoples' everyday living, growing, and working. In the absence of this contextual knowledge, I felt unable to understand and employ the theories and frameworks that illustrate the field of population health to develop my research proposal with minority population groups facing inequities in health. Richmond and Ross (2009) critique and discuss the limitation of a conventional social determinants of population health approach for its inability to consider the theoretical contexts within which the determinants of Aboriginal health and inequalities are generated and propagated. Richmond and Ross (2009) have also argued that the determinants of health may not be all that different between Aboriginal and non-Aboriginal Canadians. But there are certain fundamental determinants of health that interact to shape Aboriginal health in local places; those determinants must be addressed first to understand the mechanism through which they operate to affect measures of population health. Further to this, Coburn et al. (2003) and Hayes (1999) state that population health frameworks over-emphasize the role of socio-economic determinants, and disregard the socio-structural influences that initially produce those very determinants. For example, focusing on the income inequality as a determinant of health rather than trying to determine what are the drivers of income inequality (a more detailed example may include, the difference between skill sets developed in post-secondary education and

demand in the labour market; or curricula in post-secondary education and their relevance to diverse needs of students and successive importance in their real-life situations).

For understanding the determinants of health among First Nations and Métis people in urban areas, there are many varied and intertwined determinants; most of which are entrenched in unequal power relations and a history of colonization (Adelson, 2005; Waldram et al., 2006), processes that some authors have suggested are not explicable within a traditional determinants of health framework (Wilson and Rosenberg, 2002; Richmond et al., 2005). I, however, do not disregard the importance of visual depictions of our thoughts and arguments in this interdisciplinary domain of population health, where we constantly need to negotiate with and persuade the proponents of new concepts. This doctoral journey and my involvement in various population health related research projects have taught me to contemplate any population health issue with an open mind, by situating and contextualising it within the 'causes of the causes'. With this reflexivity I turn to look at diabetes from First Nations and Métis peoples' narratives, which extends beyond clinical settings. I thus aim to understand the diverse and intersecting determinants that contextualize their health, in which I had been immersed some time ago through my Masters training in anthropology. The visual depiction of the present study's conceptual framework of intersecting social determinants of incidence of diabetes is illustrated in Appendix 3.

Section 2: Methodological Framework

In this section, I describe the methodological undertakings of this research, such as narrative interviewing and narrative thematic analysis, primarily based on Riessman's (2008) perspective of human science research methods. This section will first provide a background of how narratives have been used in this community-based qualitative research study as a form of analysis. An overview of methodological map for thematic analysis using Riessman's method is then discussed, followed by a review of supportive literature. The very last section of this chapter presents a justification of the narrative analysis as the method of choice for this study.

Story and Narrative

In this research, "story" or "narrative" refers to a brief, bounded segment of interview text, rather than an extended biographical account (Riessman, 2008). As Gilbert (2002) argues, narratives are a method of retelling an experience. Gilbert writes that: "We live in stories, not statistics" (p. 223). It is the revealing and re-experiencing that brings meaning to a situation (Gilbert, 2002). Riessman (1993) argues that constructing the narratives forces the individual to think about the experience once again. In other words, Riessman (1993) views narrative as the means of gaining access to experience: since we cannot live the experiences of another person, we are actually getting a representation of those experiences through their re-telling of them. Riessman proposes five levels of representation: (i) attending to experience; (ii) telling about the experience; (iii) transcribing the experience; (iv) analyzing the experience; and (v) reading the experience.

Attending to the experience occurs as the person implants the overview and details of what is happening in their mind. Some details may be missed during recollection of the experience, which accounts for two people being in the same place at the same time in the "same experience," but having somewhat different recollections of the experience as each person will remember the things

that are most important to them. The next level of representation is *telling about the experience*. During this process, the revelation of the story will not be related exactly as the experience itself occurred, as time has passed and the person might have changed since that time. This part of the process included interaction, as the telling will be what the teller wants others to hear or know; the telling of the experience is a translation of the teller's own self. *Transcribing the experience* as a level of representation has the potential for being exact as to what was recorded. *Analyzing the experience* is the level where the researcher decides what is important in the transcribed account, what has meaning and how that relates to their investigation. A representation of the experience will result based on the researcher's own views guided by the theoretical or conceptual frameworks of the investigation. The last level of interpretation is the *reading experience*, when others read about the experience as told by the teller and as interpreted and represented by the researcher.

In the course of analysis, a theoretical framework serves as a resource for interpretation of narratives. Thematic narrative analysis, according to Riessman (2008), is the most widely used analytic strategy. In thematic narrative analysis, the focus is on the act of creating a narrative report and the moral meaning of the story. In this research, while undertaking narrative thematic analysis of data the focus remains on the content of the narratives communicated. With a strong conceptual background as a resource, I was able to link seemingly insignificant everyday realities or acts of participants' lives of what they shared with me and of what they engaged in their day to day lives. Theorizing across a number of narratives by identifying the common thematic elements in research participants' situations, the events they report, and the actions they take, is an established tradition with a long history in qualitative inquiry. I considered individual accounts as "cases", and these are of interest to me both for their uniqueness and their commonality (Stake, 1995). During the analysis period, "decontextualization" and "recontextualization" of data happened (Tesch, 1990). Data are decontextualized when they are separated into units of meaning through coding and sorting. Again

these data are also decontextualized from individual cases in which they originated. Data are recontextualized as they are reintegrated into themes that combine units of similar meaning taken from the accounts of multiple research participants. These recontextualized data create a reduced data set drawn from across all cases. I then used the reduced data set to establish connections or relationships with theoretical understandings among these clusters of meaning.

The use of coding and sorting and the identification of themes are an essential part of the qualitative research process as they capture the commonalities of experiences across cases. They capture less effectively the individual uniqueness within cases, however. The analysis of individual cases, then, enabled me as a researcher to understand those aspects of experience that occur not as individual 'units of meaning,' but as part of the pattern formed by the confluence of meanings within individual accounts. I used the reduced data set to explore theoretical relationships among these clusters of meaning. The researcher's task of creating the narratives of shared experiences thus became a "constructive and reconstructive" process (Aranda and Street, 2001). Within this context, I as a researcher became part of the narrative making. As the participants shared their experiences, they were constructing and placing meaning of their own into it, while I heard it and became part of it, and so reconstructed the narratives of their stories. The second construction challenges the researcher to reconstruct the narratives without losing the elements that the teller holds true, while at the same time instilling the researcher's own interpretation. The third construction places new meaning on the narratives through the subsequent interpretation of future readers. This process displays a fundamental element of the qualitative research, in that it is not seeking to find an absolute truth in repetition, but a new connotation or meaning. As the person is continually living through life and maturing, new meaning will likely be placed on past experiences.

Continuing this tradition, while also preserving narrative features, requires subtle shifts in the method of narrative analysis. Some forms of narrative inquiry and analysis are guided and

grounded in prior theory; at the same time, however, investigators also search for novel theoretical insights from the data. In a narrative analysis, investigators keep the “story” intact for interpretive purposes, although determining the boundaries of stories can be difficult and highly subjective. Again, narrative analysis is case centered or specific to the subject under investigation. There are considerable variations in how each investigator defines a narrative unit, ranging from the entire biography or “life story,” to a bounded (spoken or written) segment about a single incident. Related to this, narratives can be represented differently, some constructed from edited transcripts of interviews and others from memories of fieldwork observations, and field notes. Lastly, contextual information is vital to narrative analysis as it pays considerable attention to macro contexts, which are important as they make connections between the worlds depicted in personal narratives and the larger social structures or power relations, hidden inequalities, and historical contingencies (Williams and Elliott, 2010). I have addressed the issues of reliability or validity in qualitative research with more details later in this chapter.

Methodological Map for Thematic Analysis

A methodological map describes the data analysis process. My undertaking of narrative thematic analysis of data is primarily informed by Riessman (2008). Following Riessman, I also emphasize on the following: i) how the concept of narrative can be used in the analysis; ii) how data can be constructed into the text for analysis; iii) what is the unit or focus of analysis in this research; and iv) the researcher’s attention to contexts, from local to societal (micro and macro). Units of analysis for this research topic are; a) subjective experiences of genesis of illness (diabetes) reported in personal narratives, and b) acts of initiatives or attempts to prevent or manage his/ her illness (diabetes) as demonstrated in personal narratives. Following Riessman (2008), the spoken language from transcripts was “cleaned up” to construct unambiguous plot lines, using ellipses (...) to indicate deleted speech. Because I was interested in the complexities of First Nations and Métis community

members' and professionals' understandings of developing diabetes from their respective social locations, and because I recognized that the meaning of these understandings depends upon what participants bring from their cultural or professionals contexts, it has been important to collect interview data from a number of different social actors; ranging from various health service providers, policy makers and First Nations and Métis community members. From the professionals' side, these larger narrative contexts include the participants' accounts of work with First Nations and Métis clients. From the family or community perspectives, the biomedical aspect of diabetes in their narrative contexts was just one piece of their many lived realities surrounding diabetes. Out of these multiple understandings of diabetes, I discovered that diabetes has evolved within multiple intersecting social determinants of health that have the potential to provide both resources and limitations for diabetes prevention. Interviews that revealed these multiple layers of narrative contexts allowed me to examine the perceptions of First Nations and Métis people, providers and policy makers interested in reducing disparities in diabetes incidence and in improving its prevention.

The goal of the narrative thematic analysis process in this dissertation is to find commonalities as well as variations within and among the narratives of the participants. To that end, a within-case and an across-case narrative thematic analysis approach was used (Poirier and Ayres, 1997, Ayres et al., 2003). The within-case analysis focuses on implicit rather than explicit meaning in the interview text, which was accomplished through a technique of narrative analysis known as 'overreading' (Poirier and Ayres, 1997). This overreading demonstrates sensitivity to unspoken or indirect statements. Through the overreading of the interview texts that speak to the conceptual understandings of social determinants of health and intersectional approaches and respond to my research questions, the topics and subtopics were separated from the context of the original stories and then compared across cases. Thematic coding of data with the help of NVivo9

software helped me in this regard (the coding process I described later in this chapter). These topics and subtopics were essentially decontextualized and ultimately recontextualized. Across-case thematic narrative analysis provides an opportunity to compare the significant statements from each individual account with all participant accounts, paying particular attention to the commonalities across participants.

In this research, I used open-ended interview questions and probes (if required) to inquire about incidents and events that research participants might see as factors responsible for the development of diabetes, as well as ways and approaches that they perceived would prevent diabetes. After the data collection, my first analytic activity was to immerse myself in the data, reviewing the interview transcripts from all participants to acquire a feeling for their experiences with diabetes and its prevention. The data were thus reduced and further reduced to categories with topics and subtopics (Lincoln and Guba, 1985). Next I compared the significant statements from each individual account with every participant's account, paying particular attention to the commonalities across participants. I used categories, topics, and subtopics from individual interviews to track themes and patterns across cases. At the same time, I conducted within-case comparisons on each topic within each informant's account. Once the categories were identified, I reconnected each significant statement to its original context and validated the categories. This iterative strategy of moving between, across, and within case comparisons facilitated the process of critical reflection on and identification of themes as they were found in the accounts of the multiple participants. With the identification of common themes from this phase, I was then able to group the significant statements according to these themes and develop a set of subthemes for each group.

With the help of NVivo software, I coded the themes or parent nodes and the subthemes or child nodes by categorizing the narratives under appropriate themes or subthemes. Summaries

containing a description of the theme as it applied to all cases and including all of its subthemes were developed for each theme. Then these themes or typologies were related to the theoretical frameworks of intersecting determinants of health. I situated these themes or typologies within the broader Métis and First Nations contexts and explored the concordance or discordance with professionals' narratives. This has resulted in a description of individual narratives as they relate to the larger social groups of First Nations and Métis; and its social, cultural, economic and political contexts.

In the table (Table 1) below, following Riessman (2008), I attempted to summarize the key concepts of thematic narrative analysis applied to this study. This table demonstrates definition and structure of narratives employed, exemplars of unit of analysis, and contextual information of narratives.

Table 1: Thematic Narrative Analysis (Adapted from Riessman, 2008)

<i>Definition of Narrative</i>	<i>Representation of Narratives</i>	<i>Unit of Analysis: Focus</i>	<i>Analysis to Contexts</i>
Bounded segment of interview text about an incident	Brief interview excerpt; cleaned up speech	Subjective experiences of genesis of illness (diabetes) reported in personal narratives Acts of initiatives or attempts to prevent or manage his/ her illness (diabetes) as demonstrated in personal narratives	Societal: considerable

Justifying Narrative Thematic Analysis

A narrative analysis approach is a way to explore human action based on narrative cognition and so uncovers hidden meanings of human action. As the research participants respond to the semi-structured or unstructured questions, they share instances and events of their lives related to the research topic. As they share their thoughts, they move back and forth in time. They do not always tell complete stories, but they sometimes share excerpts (or bounded segments) of stories. It is the researcher who has the task of connecting the events to each other in a way that completes the meaning of their shared experience; through this process of analysis the researcher becomes immersed in the narratives and incorporates socio-cultural, historical, political, economic and physical contexts into the narratives. In other words, a shared transparent and democratic relationship can emerge between the researcher and research participants, whereby participants and researchers can work together to ensure that the participants' voices and experiences are represented with due consideration and respect. During an interview or conversation with participants it may not be possible for a researcher to achieve a completely balanced power relation, but it may still be possible for the researcher to achieve a comfortable and constant shift in power balance and dynamics with participants. Narrative analysis as its purpose: "understanding individual persons, including their spontaneity and responsibility, as they have acted in a concrete social world" (Polkinghorne, 1995, p. 19).

In narrative analysis, the researcher interprets the stories and decisions of the participant narrators and invests these stories with further meaning (Sandelwoski, 1991). This iterative process of making meaning by both the narrator and the researcher and the comparisons made by the researcher at all levels is known as the "hermeneutic spiral" (Sandelwoski, 1991; Poirier and Ayres, 1997). This rigorous process of reflection and reinterpretation enabled me to track thematic

variations and commonalities across cases without removing the individual contexts essential to narrative analysis (Ayres et al., 2003).

Trustworthiness and Rigour

Riessman (2002) states that traditional applications of reliability standards do not and should not apply to narrative analysis. Validation, the process through which we make claims for the trustworthiness of our interpretations, is the critical issue. “Trustworthiness” not “truth” is a key semantic difference. In any qualitative analysis there are no techniques or procedures that can generate complete objective truth (Lather, 1986; Lincoln and Guba, 1985; Phillips, 1990). As Brinber and McGrath (1985) indicate, validity in qualitative research is not a commodity that can be achieved through techniques; understanding is a more essential notion for qualitative research than validity (Cho and Trent, 2006). In the same line, as Bradbury and Reason (2008) suggested that practitioners of community-based participatory research “broaden the bandwidth of validity” by asking to include different “ways of knowing,” including community lay knowledge alongside more traditional scientific sources of knowledge.

Validating Interpretations

There are three forms of validity of interpretations applied in qualitative research, such as descriptive validity, theoretical validity and interpretive validity. *Descriptive validity*: Descriptive validity refers to maintaining factual accuracy of the account itself and avoiding the error of omission of critical elements from the account. As noted above, spoken language was “cleaned up” to construct unambiguous plot lines but kept the meanings of participants’ understandings and story lines intact. *Theoretical validity*: This refers to the validity of the concepts applied to the theory of a phenomenon as well as the relationships among them (Maxwell, 1992). The rigorous iterative analytic process refers to using both within-case (each transcript) and across-case analyses (from

one transcript to the other) and the hermeneutic spiral, which inherently prevents any risk of errors in theoretical validity. The chosen analytic method of narrative analysis then (as distinct from grounded theory) minimizes threats to theoretical validity. *Interpretive validity*: This is concerned with the meaning that participants' accounts and stories have for them; it focuses on the reflections and perspectives of the participants rather than those of the researcher (Maxwell, 1992). In narrative analysis the researcher's interpretation and engagement with the participants is an important part of the process. Although narrative analysis inherently gives voice to the participants' perspectives, researchers attempt to remain true to each participant's view and voice.

Ayres and Poirier (1996) point out that a clear and transparent description of all the methods used in the final presentation of the narratives is the best way of demonstrating the trustworthiness of the work, given the potential for multiple interpretations and meanings. According to these authors, the construction of meaning is never finalized, because readers themselves will respond to it from their own contexts, and their responses will give meaning and worth to the task. If a study is conducted transparently and responsibly and is faithful to the methods and data, the final interpretation must be accepted as one but perhaps not the only valid interpretation of narratives. To this end, I have attempted to fully describe the method of interpretation; specifically, the rigorous and iterative process leading to the final interpretation was delineated step by step.

Chapter 4: Methods and Research Process

The complexity of urban health problems, such as Type 2 diabetes among the urban Aboriginal population, is best explored by a locally-relevant and community-based approach that engages local communities in research (Minkler, 2005). This research was directed by the fundamental principles of community-based research (Israel et al., 1998) that encourage the recognition of the strengths of community institutions and individuals, and emphasize the relationships between the researcher and the community (Baydala et al., 2006) (See protocol for this research in Appendix 4). Community-based research efforts exist on a continuum from low community engagement to high community engagement and there exist many possible combinations therein (Israel et al., 1998; McDonald, 2009) (Appendix 5). This research aims to address a priority health problem among Aboriginal populations, but acknowledges that there is a “need to balance individual and collective interests, respect for Aboriginal values, knowledge, methodologies and decision- making processes... that engages the Aboriginal and research communities” (CIHR, 2007: 12). This community-based research approach begins with a topic of importance to the urban First Nations and Métis communities—in this case community members’ and professionals’ understandings about the development of Type 2 diabetes—and aims to combine knowledge with social change and community development by contributing to the development of culturally-appropriate prevention strategies.

This research respects the OCAP (ownership, control, access and possession) principles that offer a First Nations approach to research, data and information management (NAHO, 2005b), and OCAS (ownership, control, access and stewardship) (Bartlett et al., 2010) principles that include a Métis approach and CIHR guidelines for health research involving Aboriginal Peoples (CIHR, 2007). Since its inception, this proposal has been enriched by methodological lessons from various

researchers and my own previous work. I undertook extensive consultations with members of the various local and national Aboriginal service and research organizations to ensure that they were convinced of the importance of this research for the local Aboriginal communities and to receive meaningful input into the research design. My experience as a guest speaker and volunteer for the healing and wellness circle and the family support program at the Friendship Centre in Ottawa has given me the opportunity to discuss with their clients the importance and appropriateness of this study for their fellow community members. Formal and informal meetings and discussions with the researchers and health care providers working across the nation for and with Aboriginal Peoples, and living inside and outside the local community, have also enriched the design of this research project.

Research Governance

Following the OCAP and OCAS principles this study's governance structure included an Aboriginal Community Advisory Circle (ACAC) in addition to myself (the student researcher and doctoral candidate), the thesis supervisors, the thesis advisory committee. The Aboriginal Community Advisory Circle (ACAC) was formed to help guide this research project, comprising of Elder and members from community partner organizations, Aboriginal research, advocacy and service organizations and agencies. The ACAC provided assistance in every step of the research design to avoid inadvertently breaching the cultural protocol. I met with the ACAC members twice every year in face-to-face meetings, whereas regular contact was also maintained through phone calls and emails. Adequate time and resources, therefore, laid the groundwork for building this culturally-appropriate, community-based research work with urban First Nations and Métis people. I met with my supervisors on a regular basis through in-person and online meetings, e-mails and phone calls to discuss thesis updates and receive their guidance. The thesis advisory committee comprised of professors from interdisciplinary backgrounds and different Canadian universities who

have expertise in Aboriginal health research and population health research formed an indispensable element of this study's governance structure. I presented research updates to the committee members on a regular basis and received invaluable feedback from them throughout the process.

Research Setting and Participants

I undertook this doctoral research with the collaboration and engagement of local Aboriginal community partners in the city of Ottawa. Ottawa is the central city of Canada's fourth-largest metropolitan area, an Eastern Ontario urban setting (Appendix 6) that spreads across 33 municipalities in nine counties and regions surrounding Ottawa-Gatineau. According to a City of Ottawa report, the population of the greater Ottawa-Gatineau metropolitan area is over 1.3 million (City of Ottawa, 2003). As per the 2006 census, 8,195 persons who self-identified as First Nations, 6,055 people as Métis, and 600 people as Inuit, while 800 persons also reported more than one Aboriginal identity group (Champlain LHIN, 2008). There are some people who reported being a Registered Indian and/or Band member without reporting Aboriginal identity. I carried out this research with First Nations and Métis people accessing health and social services at the Aboriginal organizations situated in and around the Ottawa downtown area (See the map showing these Aboriginal organizations in Appendix 7). Clients of these Aboriginal organizations travel quite far from various places in Ottawa only to access culturally appropriate services. In many cases they commute by public transit or take their own vehicle. These organizations do provide commuter services for those who meet their criteria.

While preparing for my course work and comprehensive exams, I approached the members of various local Aboriginal research and service organizations, both known and new, to discuss my doctoral research topic. The series of consultation meetings helped us redefine the research questions and we developed the research proposal collaboratively. Following the successful

consultation process, I received support letters (Appendix 8a and 8b) and permission to seek research participants from the Odawa Native Friendship Centre, the Métis Nation of Ontario, and the Southern Ontario Aboriginal Diabetes Initiative (SOADI). Eligibility criteria for community participants in the study included: being First Nations or Métis^{ix}; living in the city of Ottawa for at least two years^x; being 18 or older; and having been diagnosed with T2DM or familiar with T2DM while providing care for a family member or friend. Professional participants including formal and informal service providers (HSPs), and provincial and national policy makers who were working in the field of Aboriginal chronic disease prevention and decision- making were purposefully recruited.

Research Participants Selection Process

Once the University of Ottawa Research Ethics Board (REB) approved (Appendix 9) this research project, I adopted multiple strategies for the recruitment of First Nations and Métis community participants. First of all, a recruitment flyer (Appendix 10) and letter of introduction for primary participants were (Appendix 11) circulated among the clients of the supporting organizations and their networks to publicize the research. Program coordinators at various organizations took a key role in informing their clients about the research; however, they did not directly recommend or recruit any participants. Recruitment flyers were also posted on the bulletin boards of the local Aboriginal and interested mainstream health and social service centres, and published on the University of Ottawa Aboriginal studies website. Announcements were also broadcast on a local radio station (CKCU-FM- Ottawa's Community Radio Station). Second, I went to the selected sites including Aboriginal and mainstream health centres, social service organizations, Native Friendship Centres, and advocacy organizations to discuss the aim and scope of the research project and criteria for participation to their respective clients. As advised by the organization, I sometimes formally presented or informally discussed the research project with their clients, answered any questions, and welcomed the attendees for their volunteer participation. After each

presentation or discussion, I circulated a recruitment and interview scheduling sheet with options for on-site or telephone interviews. Some attendees immediately indicated their interest in participating, while others either asked me to call them later or declined to participate. I would call the potential participants to schedule for the interview and we would proceed from there. Another strategy commonly referred to as 'snowballing' was also used during the recruitment phase to obtain more participants who met the selection criteria. In this approach, initial participants are invited to recommend other participants as colleagues, friends or family for the study.

Professional participants or the secondary participants were, however, directly contacted and recruited purposefully by me. I had prepared a list of potential professional participants from my personal and professional networks, and the initial research contacts I developed with Aboriginal organizations. I then visited their organizations websites, collected their names and called several professionals, and emailed the letter of introduction (Appendix 12). I also followed a snowballing strategy to recruit professional participants. I also approached some professionals for interviews when I attended conferences. Based on the responses received, I would then call them to schedule the interviews. With one exception, all the professional participants were interviewed face-to face at their workplaces. One professional was interviewed via videoconference.

Both community members and professional participants were recruited between June 2010 and August 2011. The first phase of primary participant recruitment started in June 2010 and continued over the summer. During this time, I primarily received responses from the First Nations participants. My plan was to recruit an equal number of Métis and First Nations persons with or without diabetes—sixteen to eighteen participants from each group as indicated in the proposal I defended in January 2010. I also intended to recruit an equal number of female and male participants; however, after four months of continuous advertisement and efforts to recruit I was able to recruit only three Métis participants and ten First Nations participants. I explained the

situation to my thesis supervisors and ACAC. ACAC members found that five years of length of residence as an eligibility criteria to be selected for interview would probably be a little too long due to Métis peoples' transient nature of residence. Following their recommendation, I modified my participant recruitment criteria to alter the length of urban residence from five to two years and submitted an application for an ethics modification to the University of Ottawa REB in November 2010; and received approval of this modification in January 2011 (Appendix 13). Thus began the second phase of community participant recruitment, and I was successfully able to recruit desired number of community participants of Métis and First Nation origin. According to my original plan that was stated previously, the 'desired number' refers to recruiting equal number of First Nations and Métis male and female participants with or without diabetes. In the end, I was able to recruit more or less equal number of Métis (15) and First Nation participants (11), and one participant of First Nation and Métis origin. Again within I successfully recruited 5 male and 6 female First Nation, and 9 female and 6 male Métis participants. There were 6 diabetic including pre-diabetic and 5 non-diabetic First Nation, and 7 non-diabetic and 8 diabetic including pre-diabetic Métis participants in this study. Although the numbers were little higher for Métis than First Nation participants but they were not too high or low or not that any subgroup of participant was missing. The ages of the Métis participants ranged from 20 to 74 years, while the First Nations participants were between the ages 20 to 54 years. The length of urban residence for the Métis participants ranged from two years to over 70 years and all life, while it was between five to 39 years for First Nations participants. All the participants of this research had some level of formal education. For Métis participants it ranged from high school diplomas to graduate degrees. Similar to the Métis, First Nations participants also had a wide range of educational levels starting with less than high school education to undergraduate degrees. Out of 15 Métis participants, eight were employed; six unemployed and one participant did not disclose her employment status. Among the 11 First Nations participants,

eight were employed and three were unemployed. These statistics include part-time and full-time employment. Out of 15 Métis participants, six were diabetic and two pre-diabetic, while five First Nations participants were diabetic and one was pre-diabetic. One participant of mixed First Nations and Métis origin had a graduate degree, was employed, lived in the urban areas for fifty years, and was non-diabetic. Please refer to Appendix 14 for detailed description of primary research participants.

The recruitment and interview period for secondary participants or health service providers and policy makers was relatively shorter, primarily spanning the end of spring and the summer months in 2011. I had to conduct several long-pending interviews with professionals in October 2011 in order to accommodate their busy schedules and urgent calls. Professional participants included six health service providers and seven policy makers. Three of the six health service providers were of First Nations and one was of Métis descent; the rest were non-Aboriginal persons. Three of the seven policy makers were First Nations, one of mixed First Nations and Métis descent, one of Métis descent, and the rest were of non-Aboriginal origin. Health service provider participating in this study performed various roles in diabetes treatment and prevention including positions such as family physician, nurse diabetes educator, diabetes dietician educator, and unregulated professionals such as diabetes prevention coordinators. Policy maker participants included research managers, program officers, health planners, health policy analysts, and directors of national level advocacy organizations. (See Appendix 15 for detailed descriptions of professional research participants).

Collecting Data

Data collection for this study was done in two phases. First phase involved recruitment and interview of primary participants followed by the second phase of recruitment and interview of secondary participants. The rationale behind undertaking this sequential approach was to plan

interviews with secondary participants by building on the perceptions of primary participants captured in the first phase. The objective of this approach was to capture the multiplicity and richness of understandings within each group rather than to capture to precipitate a conversation between them. Moreover, participant groups interacted with each other within the context of the health care setting; therefore, their narratives often included a response to the various perceptions they encountered. I collected primary data in the form of narrative interviews with First Nations and Métis community members, health service providers (HSPs), and policy makers. The interviews were conducted one-on-one and in person, with an exception of a professional participant as mentioned above. Prior to the day of my visit for each interview, as a gesture of respect for participants, I always called and sent a gentle reminder. At each interview, I explained the consent form (Appendix 16a and 16b) and the demographic questionnaire (Appendix 17a and 17b) to each interviewee before his or her participation and answered any questions they might have. Informed consents were also signed in duplicate by the participants and the interviewer (myself) before beginning each interview, with one copy for the participant's record and the other one for the researcher. Following the informed consent, participants were asked to fill out the demographic questionnaire. Interviews were recorded after receiving approval from the participant; in this case, I received permission from each of the participants. The majority of the interviews with primary participants took place at the Aboriginal organizations including a Native drop-in centre. I also conducted some interviews at the participants' homes as they had difficulty commuting. Each interview was scheduled to be approximately one hour long, but in reality extended well over an hour, sometimes for two hours. I was always aware of the specified duration of the interview and gently reminded them of that and offered to schedule a repeat interview if they wished to do so, but all of them wanted to complete their interviews in one sitting. I conducted all interviews in English as all the participants were fluent in English. Interview questions were structured as loosely as possible to have a relaxed conversation

based on the literature and our interests in explanatory models of diabetes causation and prevention (Hunt, 1998; Kleinman 1988; Loewe and Freeman 2000). However, to facilitate the conversation, I developed interview guides (Appendix 18a and 18b) in consultation with the ACAC and thesis advisory committee, which was also relevant to the background of the interviewees. During the preparatory phase of this thesis proposal and particularly before my proposal defense, I circulated my thesis proposal to my both thesis advisory committee and ACAC members and their recommendations were inculcated in the interview guide. For example, they had concern about using the term 'risk' of developing diabetes as research with Aboriginal Peoples often take deficit-based approach portraying them at risk of many issues. So we decided to step back and take a much wider approach to see what factors condition the 'risk' of developing diabetes among First Nations and Métis people and accordingly revised our research questions and subsequently changed the interview guide. Moreover, my community partners wanted the Métis and First Nations' perspectives about diabetes to be separated so as to know exclusively about Métis and First Nations' understandings of diabetes and its prevention for their program planning. Subsequently, in the interview guides, I had specific sub-questions for Métis and First Nations peoples. However, my interview questions were truly a guide as I was more interested in the spontaneity of responses. Therefore, I did not strictly follow the interview guide rather followed the course of discussion while asking questions during interviews. Some additional questions were also asked if it seemed suitable to the flow of conversation and relevant to the study. I pilot tested the interview guide developed for primary participants (First Nations and Métis participants) with one Aboriginal participant. I however did not pilot test my interview guide developed for the professionals or secondary participants (Health Service Providers and Policy Makers). I concluded each interview by asking for final comments and permission for contacting them again if any clarification was required while transcribing the interviews; and I was always assured that I could contact them whenever I needed.

As a token of appreciation, I offered each research participant a thank you card with twenty dollars in cash. I maintained the confidentiality of the narratives by keeping the data in a locked filing cabinet in my home office. The original names of the participants have not been used in this thesis, nor will they be used in any publication. Every participant received a pseudonym chosen by me.

I gratefully acknowledge the hospitality and support I received from my partner organizations during the data collection phase. They welcomed me at the centres with warmth and smiles. While collecting data, they shared their office space with me or arranged for alternate rooms. Sometimes the staff members even kept my children busy in their play lodge when I was busy interviewing participants. My daughter was probably one of the youngest volunteers of their play group, who played with them, read stories, made bubbles and of course enjoyed food. For me, the data collection was one of the most challenging but most enjoyable phases of this research.

Taking Field Notes

Field notes are fundamental part of systematic collection and analysis of data (Pope and Mays, 2006). Field notes serve the crucial role of connecting researchers and research participants in analyzing and writing findings of a research project. I used field notes from my narrative interviews when analyzing data. I however did not take detailed field notes when conducting each interview, except one where my digital recorder was not functioning properly due to power shortage. I rather kept short notes while conducting interviews. When each interview was over, sitting at a quiet and private place or in my home office, I wrote detailed reflective field notes. Field notes provided me retrospective 'end-point' descriptions of each interaction I had with the research participants during interviews, as well captured my personal impressions, feelings and reactions to each interview. These reflective field notes provided me rich opportunity to present final compelling narratives in results chapters of this study.

Challenges during Data Collection

Interviews bring back memories, which obviously let interviewees share their often unspoken narratives of experiences, but at the same time may also immerse them in not so pleasant experiences of the past. To handle these unexpected situations, I made a list of services or resources available and always carried those with me, which fortunately I did not need to use. We did encounter some stressful or sad moments during several interviews, however. When this occurred, we took a pause, changed our discussion and later came back to our primary discussion topic. The narrative interviews I conducted were guided by open-ended interview questions. In other words, the interviews were discussions between the participants and the researcher. While some interviewees are natural storytellers, others are not. Some participants changed topic quite often and needed assistance to come back to the point. I faced all these various situations when conducting interviews, but also appreciated the diverse range of narratives I was able to gather at the end.

Conducting an interview in a drop-in centre location can be challenging and time consuming. It was sometimes difficult to follow up with a person to schedule an interview who came to know about the project from the drop-in centre, since they did not have any set contact number and their visits to the centre were often irregular. In many cases, drop-in centre's clients were also homeless. The literature demonstrates that homelessness is experienced disproportionately by Aboriginal Peoples in large cities across Canada (Reading, n.d.). In fact, health conditions among homeless people are often chronic because access to health care, treatment, exposure to poor nutrition, and lack of support is limited or sporadic. I made several attempts to connect with them through the centres' program coordinators. Sometimes we succeeded in making contact and in conducting an interview, but most often not. It would not have been possible, however, to engage with First Nations and Métis participants of diverse socio-economic

backgrounds otherwise; and their varied range of perspectives surrounding diabetes would likely have remained uncovered.

Transcribing Data

All recorded primary data was transcribed word for word by experienced transcriptionists. With the help of ACAC members, I made all possible attempts to recruit transcriptionists from the First Nations and Métis communities; however, due to lack of response from the communities, one recent graduate and a current University of Ottawa student who had considerable engagement with Aboriginal health research were recruited for transcribing the interviews. They signed the confidentiality agreement (Appendix 19) with me to protect the anonymity and confidentiality of the data and promised to destroy any documents they might have after the transcription was over.

Managing and Analysing Primary Data

The importance of a good storage and timely retrieval system to keep track of data is stressed by every qualitative methodology textbook. Researchers use NVivo to “store, code, index, structure, and record information about the data throughout the data collection and analysis” (Jakobsen and McLaughlin, 2004, p. 596). For this research I used qualitative software for data management and analysis (QSR NVivo 9), particularly to code narrative interview transcripts. I created a single project folder for my thesis. I then imported all interview transcripts into the internal ‘sources’ file and organized under two folders called ‘community members’ and ‘professionals’. I coded all interviews by applying inductive and deductive coding methods. I created ‘parent nodes’ to reflect major themes and subsequent ‘children nodes’ to denote subthemes. ‘Parent nodes’ were the outcome of inductive coding that was carried out by following the interview guide. For example, a ‘parent node’ I created denoted the factors responsible for developing diabetes; and subsequent ‘children nodes’ to elaborate on these factors such as the

intergenerational impact residential schools brought on survivors in diet selection, food preparation, and parenting. Thus 'children nodes' were the nodes emerged out of deductive coding of data. I tried to code data after each interview, but sometimes there was a time lag before I coded them in NVivo9. Therefore, while coding, I had to go through my interview field notes, re-listen to the interview recordings, and sometimes re-reading the demographic information of the participants to refresh my memory, capture participants' tone and visualize the interview setting and atmosphere.

The NVivo 9 software program allowed me to store all the transcribed materials, electronically organize and code data, examine associations among the elements that have been coded, and easily execute search and retrieval functions while writing the results of this research. I wrote detailed description in the node properties' dialogue box to remind me of details of the codes. Moreover, I wrote extensive memos of my analytical thoughts generated from data, which later served as essential sources of analysis and writing of this thesis. The data collection and analysis strategy I employed accommodated and continually supported a "data analysis spiral" process (Cresswell, 1998; Huberman and Miles, 1994). Chapters 5 and 6 reflect the findings from narrative interviews with First Nations and Métis community members. Findings from interviews with health service providers and policy makers are reflected in Chapter 7.

Validating Preliminary Findings with Community Members

My original plan was to verify each transcript with the respective community participants to ensure that it captured his or her experiences correctly. Due to the transient nature of the participants, particularly those who came from drop-in centres, I was unable to contact all the research participants to check their transcripts. Instead, in consultation with my supervisors, I decided to share preliminary findings and a summary of research results back to the ACAC (Aboriginal Community Advisory Circle) members representing the local Métis and First Nations

communities. In April 2012, I presented to them the study's findings, and shared with them an eight-page handout describing the salient points of the study's findings. From the ACAC members, I received pertinent feedback including clarification of culturally appropriate terms, advice on elements to highlight, and further points to consider. Their advice and suggestions greatly helped me in presenting the findings of this thesis in a way that is meaningful to the community and captures strengths and needs surrounding diabetes and its prevention.

Disseminating Research Outcomes

I have planned to share outcomes of this study in various forms. First and foremost, writing the doctoral dissertation, followed by publication in peer reviewed journals, and presentations to the academic, health service providers and policy audiences. Scholarly articles for publication in peer reviewed journals based on the findings from each of three result chapters, as well as from the method chapter of this study are being generated. Apart from these, I plan to share the research findings with interested participating Aboriginal community organizations and within their networks as a full text document or as a short summary. A one page summary of this research will be shared with the interested research participants as well. There is a plan to present the summary of findings at participating organizations. However, ongoing dissemination of this study process and its progress are being made through various publications and presentations [Ghosh and Gomes, 2008: Ghosh, 2010, 2011a, b, c, 2012b; Ghosh and Gomes, 2011; Ghosh, Sptizer and Gomes, 2012; Ghosh and Spitzer (under review)]. Moreover, presentations at the conferences, seminars and workshops will continue to be a vehicle of communicating the findings of this research.

Chapter 5: First Nations' Perceptions of Diabetes

I organized the qualitative interpretations of 11 interviews with First Nations participants into the thematic and sub-thematic categories. The thematic categories were informed by individual concepts identified during the process of analysis, and speak broadly to the constructs of social determinants of health; the intersections of a legacy of colonization; geographic location (urban context); and Aboriginal diversities in legal and social statuses. These intersecting categories coexist with and compound the effects of social determinants of health, including income and social status, social support networks, education and literacy, employment and working conditions, social environments, physical environments, personal health practices and coping skills, healthy child development, genetic endowment, health services, gender, and culture (PHAC, 2011). The following thematic and sub-thematic categories present First Nations people's understandings of contextual determining factors of diabetes, within which the biomedical risk factors of diabetes are generated and perpetuated. The order of themes presented below follows the order of questions in the interview guide that I followed during data collection. The order of themes is basically informed by inductive coding (based on interview guide) and deductive coding (emerging sub-themes) of data that I undertook during data analysis phase.

Theme One: Place and Movement

Introductory questions aimed to explore each participant's identity, occupation, length of urban residence, reason for moving to this city, and involvement with the local Aboriginal communities. Their responses revealed that eight out of eleven First Nations people who participated in this research came to this city from different parts of Canada including the western and Prairie Provinces, as well as the eastern provinces and some parts of Ontario and Quebec. One participant came to this city from the United States. Two of the First Nations participants were born

and raised near Ottawa. The primary reasons for movement to Ottawa were to get further education or better employment opportunities, although the need to escape from addiction or substance abuse was identified as another reason. See Appendix 13 for First Nations participants' birthplaces, reasons for move (if applicable) to this city, and occupational statuses at the time of interview. Participants said that becoming involved with the Aboriginal organizations gave them a chance of joining a community where their unique gifts were recognized and their needs were met. For example, an expectant mother had the opportunity to share experiences with her own people and to access health and social services; elders living in isolation could get out of the home and join a community of their own; and a person in a wheelchair had the freedom and independence to access programs or community events at his or her own pace.

The nature of an urban Aboriginal community varies from city to city. Urban Aboriginal communities, in many cases, are shaped by features of the particular city around them, primarily the relative size of the Aboriginal population, the nature of the Aboriginal population dispersion over the city and the nature of and physical location of the Aboriginal organizations in these cities (Environics Institute, 2010). Family, neighbours, other Aboriginal Peoples, and Aboriginal services and organizations all verify the importance of particular community connections to urban Aboriginal Peoples. For some participants, taking part in these community events was one of the many ways of keeping their traditions alive for themselves and for successive generations; for others who have spent most of their lives in urban areas, these venues reconnected them with their roots. As Charlie, a First Nations male in his late forties, said,

I never had the opportunity to grow up in a native way and I haven't spent much of my days on reserve ... My parents kept me away from my culture, more or less... I was raised more or less as a white kid ... I have decided I will begin to learn more about my culture ... We just try to attend as many cultural events as we can.

Diane, a young First Nations woman in her twenties, revealed, “I just go to [Aboriginal organization] to get the extra help, to get the extra support from other people ‘cause I don’t have family here.”

Theme Two: Explaining Diabetes

When asked to share their perceptions of diabetes, First Nations participants’ responses included a range of topics such as their fear, struggles, sorrow, pain, needs, aspirations and hopes surrounding this illness. There was a sharp divide between diabetic and non-diabetic participants’ understandings of diabetes. Non-diabetic participants’ descriptions tended to include primary risk factors such as diet and physical activity. Fred, a First Nations participant in his twenties, explained, “... you gotta change your diet; it’s all in your diet, I believe.” Others also mentioned the associated health problems of diabetes that they saw in their families and communities. Darren, a First Nations participant who is over 50 years old, commented, “I know it affects the heart really, the veins and stuff... they degenerate kidneys...” Non-diabetic participants discussed about the early onset of T2DM and its epidemic nature in their communities. Notably, there was a fear of diabetes among them. Overall, non-diabetic participants’ explanations of diabetes tended to focus on diabetic conditions and its associated health issues.

Diabetic participants, however, primarily perceived diabetes in terms of either its co-morbid factors or its long-term complications. They often described diabetes in medical terms, perhaps indicative of their regular interaction with health service providers. As Jeff, a First Nations participant in his forties, said,

When I first found out I had diabetes, I was frightened to death ... I stayed away from sugar. But I learned to deal with it. I went to classes to learn about diabetes and workshops and whatnot. We had a health centre back home, so all the information was provided.

In addition, diabetic participants mentioned the treatment regimen. They seemed to view diabetes in terms of its management, on either a day-to-day basis or a long-term one in order to avoid complications. For some, managing diabetes meant taking medicines regularly or avoiding certain food or lifestyle activities; for others, it meant becoming well informed of the long-term complications and following the necessary management actions. Jeff's interpretation of diabetes, for instance, led him to observe, "You're going to have to take pills for the rest of your life or injections ... It's a scary thought, but once you're educated and you learn about it, you grow comfortable with it like I have."

All the diabetic participants emphasized diabetes education and self-management when they shared their views of diabetes. For Collette, being a diabetic person makes her "... think about my pancreas... I don't think about being deprived of food or anything, because I don't deprive myself of food. I try to eat in moderation." Diabetic participants also explained how diabetes impacts their day-to-day physiological conditions that often included prolonged tiredness, lack of mental clarity, and mood swings.

As do findings of international studies (Wong and Toh, 2009; Al Shafae et al., 2008), the findings of this research indicate that diabetes is viewed differently by its diabetic and non-diabetic participants. Non-diabetic participants perceived diabetes as a disease of unhealthy diets, irregular physical activity, associated health problems, an epidemic in native communities, and a source of fear. Diabetic participants, some of whom (like the previously mentioned Jeff) saw diabetes as a death sentence, had their initial perceptions changed by education and acceptance. They came to realize that diabetes could be prevented, or controlled and managed to prevent long-term complications. Both diabetic and non-diabetic participants' explanations, however, indicated the need for increased awareness and education about diabetes prevention and management.

Theme Three: Understanding T2DM Occurrence in an Urban Context

Perceptions of diabetes occurrence from First Nations diabetic and non-diabetic participants living in this urban area were clearly based on a broader discourse than a purely biomedical recognition of T2DM risk associated with proximal causal agents. It is clear from their descriptions that past events and current circumstances have all shaped the biomedical risk factors of diabetes for them. In response to the question regarding the factors responsible for diabetes causation, participants' responses included the range of factors presented below as sub-thematic categories. The purpose of the question was to gain an understanding of each participant's knowledge of diabetes and their awareness of strategies to prevent or deal with those factors. Purpose was also to lead conversation in a direction that help the researcher to document and present the recommendation for diabetes prevention. Sub-themes emerged after analysing the First Nation participants' narratives are presented below. I have chosen to denote the title of each sub-thematic category with participants' quotes.

"... a lot of stuff would have to [do] with it historically"

Historical trauma and its intergenerational legacies are often referred to as having a cumulative impact on Aboriginal Peoples' health. Many argue that the unresolved grief from the extensive loss of lives, land and culture as a consequence of European contact and colonization resulted in a long legacy of chronic trauma and "... contribute[d] to the current social pathology of high rates of suicide, homicide, domestic violence, child abuse, alcoholism and other social problems" (Brave Heart, 1998, p.56). They connected historical policies such as residential schooling and the 'sixties scoop' to intergenerational trauma and the loss of parenting and cooking skills and subsequent emergence of health concerns. Literature has revealed that with the disintegration of residential schools, the child welfare system in Canada created a new form of assimilation and

colonization through the forced removal of children and youth from their birth-communities to non-Aboriginal environments—a process informally known as the ‘sixties scoop’ (Adams, 2002; Scofield, 1999). Growing up in residential schools or in foster homes, these children had no community role models to emulate. Survivors of these colonization attempts were the by-products of the deliberate destruction in many communities of traditional family and social systems, an obliteration that contributed to intergenerational abuse and social pathology as documented by Sinclair (2007). These imposed colonial changes presented tremendous obstacles to the development of a strong and healthy sense of identity among residential school survivors or trans-racial adoptees (Waldram, 2006). Little attention, however, has been given to the role of intergenerational trauma in relation to diabetes. Community-based studies (Lavallée and Howard, 2011; Ghosh, 2004, 2012a) found that ruptures in access to and knowledge of traditional nutrition, physical and mental abuses associated with food, starvation, and the regimentation of dining experienced by residential school survivors has had a significant impact on Aboriginal Peoples’ eating patterns, particularly food selection and preparation. During interviews held for the present study, past and present government policies were identified as high-level factors that determine their reduced access to traditional and affordable foods and thereby affect diabetes occurrence. Charlotte, a First Nations woman in her thirties, echoed these feelings:

The European people came over here and people were banned from hunting, people were banned from fishing. They want you to stay in this spot and they give you this much money and try to pretty much buy everything, like they buy their land, buy whatever and provide you with, here’s flour you can make this with it, here’s sugar and salt and all this stuff that wasn’t around before they came to North America... and then with the children going off to residential school... It pretty much broke the culture and that’s what they were trying to do.

Although participants of this study came from urban settings, they always kept close contact with their home communities and had occasional access to traditional food through their families or relatives living in nearby reserve or rural communities. It is evident, however, that restrictions on

traditional practices such as hunting, fishing and gathering have not only impacted rural or reserve residents but also indirectly urban First Nations residents' access to their traditional diet.

“... It's not a choice when you are in that situation”

Community members perceived diabetes causation not as a series of risk factors but the result of challenges, struggles and successes in First Nations people's lives. In other words, their perceptions represented the biomedical risk factors of T2DM as embedded within the broader socio-economic, cultural, political and spatial barriers they face in their lives. Their descriptions included limited access in urban sectors to their traditional food. Moreover, when traditional food was available in cities, it was often not affordable for some First Nations people. Diane, a First Nations woman in her twenties, recalled that “some of the reserve people, they eat, they go hunt for their food and cook it and it's more healthier than eating food from a grocery store that's, you know, processed...”

Phillip, a First Nations diabetic man in his mid-twenties, expressed his limited capacity to afford healthy food when he stated, “I had no money when I didn't work... I just bought rice, cheaper food, not healthy... I used to eat, like, Kraft Dinner... and ground beef and lots of salt.” Phillip's representation goes far beyond most traditional interpretations about what is needed to maintain health. The root causes of these adverse health outcomes appear to be exposure to unfavourable social determinants of health such as combinations of low income, food insecurity, non-nutritious diet, among others (Raphael et al., 2012; Chaufan et al., 2011). First Nations participants also discussed how generations of residential school survivors were disconnected from their families or communities and were unable to learn about their traditional diet and methods of food selection and preparation. This loss of tradition and practices, intersecting with socio-economic barriers, spatial segregation, and lack of education may make the residential school survivors more susceptible to diabetes. Another participant, Liz, reflected these explanations in this description:

“[A] lot of the [Aboriginal] kids are growing up on fast foods and things like that and they’re not eating their traditional foods. Some of them... aren’t able to get it so, and that [leads to diabetes].”

It is clear that urban First Nations people do not consume cheap or processed food as a choice; rather, it is a reflection of their everyday struggles with limited budgets, lack of knowledge about traditional practices of food selection and preparation, and the limited availability of nutritious or traditional food at affordable prices. These issues became clearer when Linda, a First Nations woman in her thirties with considerable formal education and income, discussed her experience with the lack of access to food in her broader community context. She said,

Our people, because of the lack of money, they can’t afford as much fresh fruits and vegetables probably as other people can... So they end up buying, like, really, food that’s not good for them, high carbohydrate like greasy food, like fried foods, high sugar, high processed food.

As captured in the thematic analysis, many of the participants’ statements also reflected the challenges of maintaining physical activity in cities, and the way in which that problem can play a role in diabetes occurrence. Collette, a diabetic First Nations woman who is over 50, discussed how her lifestyle and physical activity patterns changed when she moved to the city. She also told of the role residential school training had in her daily activities:

[W]hen I lived in the bush on the trap line, we worked very hard physically. Even as a little girl, I had to walk to go get water in a pail and carry it back. ... you have to exert yourself very physically. And then the change... [of] going from that to residential school, where you didn’t need to work that hard. We would do physical work like cleaning the house, or cleaning the school or doing laundry, but it wasn’t as hard, physically.

Participants’ insights also captured the fact that in the city they became more physically inactive. Organized physical activity through public programming was often inaccessible because of expensive user fees. Jeff, a First Nations male in his forties who had been diagnosed with diabetes over 13 years ago, partially attributed his poor health to “lack of exercise ... and just being obese.” Liz noted that gyms “cost money too. Even to get your kids

into ... programs, if they're not subsidized or if they're not free, the kids can't join them." These statements clearly reflect the fact that First Nations people belonging to diverse socio-economic and educational backgrounds may or may not have restricted access to food or physical activity. The overall cost of food and its availability and the preparation and preservation of traditional food in urban sectors, however, appear to be significant contributing factors in diabetes causation. First Nations people's dependence on food that is low in nutrition and their patterns of sedentary life are not their choices but their only options for leading their daily lives while dealing with many other priorities. It is also evident from their discussions that the overall health of First Nations people reflects the realities of the circumstances within which they access their food. Participants' narratives indicated that they face barriers to food security, including the high cost of nutritious and traditional food, insufficient food selection capacity, unemployment or low income, and lack of education. Participants found themselves frustrated, emotionally drained, and stressed because a basic right (food security) was not available to them in a country of supposed abundance.

"Easy, you just go down the street and it's there."

Participants identified easy access to pre-package or fast food in urban centres as one of the contributing factors to the poor dietary options among their people, and ultimately associated fast food or junk food with the onset of diabetes. Charlotte, a First Nations woman in her thirties, spoke about limited material resources versus the convenience and exposure to fast food. She also discussed how multiple responsibilities, lack of a support system and busy schedules sometimes determine food selection:

...[P]eople nowadays have such a busy lifestyle, they have children, and they're rushing from work to daycare to wherever and... the junk food is, like, so easily [available]... for instance [name of a fast food chain] and stuff like that... So if you're really busy and you're looking for something fast, then, like, it's there and it's easy.

Maxine added to the conversation, noting that the media always targets “... youth ... and the stuff that they market, isn’t always good and I’m glad that, you know, people are becoming more aware of living green, but I have to say that media has a lot to do with it [healthy choice].” They discussed how stores display non-nutritious and calorie-dense foods more prominently. Maxine, for instance, shared her reflections:

The only foods that are actually good for your body are on the outline of the store. If you go through every single shelf, you’ll see the breads, the cereal, whatever, every other shelf has candy on it and ... at a child’s level too...

The above discussions indicate that exposure and access to the pre-packaged, sugary and fast foods available at an affordable cost in urban centres largely determine First Nations participants’ dietary patterns. Food marketing strategies and media also play significant roles in influencing their dietary practices, regardless of their financial status, as do the lack of family or social supports and busy schedules.

“...alcohol is the result of a lot of things”

When pre-diabetic or diabetic people engage in harmful drinking practices, their health outcomes can be less positive and their lives placed at greater risk. The biological mechanism of this relationship is uncertain, but several reviews have suggested a protective effect of moderate consumption with some question about higher alcohol consumption (Baliuans et al., 2009; Howard et al., 2004; Conigrave et al., 2003). Although the biological mechanism between alcohol intake and diabetes occurrence is inconclusive, it is clear from the published literature (North East LHIN, 2011; CMHA, 2008) and participant's narratives that untreated addiction, substance abuse and mental health issues can impact social and cognitive function and decrease energy levels, which can negatively impact upon people to care of their health, and ultimately lead to worse outcomes for chronic diseases (e.g. diabetes). First Nations participants’ narratives indicated that drug and alcohol

addictions cause them to be unable to take care of themselves or their families, thus compounding the likelihood of diabetes onset. When Diane was talking about alcoholism and diabetes, she said,

I heard that alcohol is a big factor that can give you diabetes 'cause of the sugar in the alcohol ... My family they drink or they do drugs, so when they have the kids they don't cook, they'd rather take the easy way... Yeah, 'cause most people if you're an alcoholic or a drug addict, I don't think you're going to really take the time to care about your kids if you can't even take care of yourself. So... you are going to order take-out all the time because... you really don't care about your kids' [eating] habits... your own eating habits.

Collette's description of alcoholism and diabetes presented a painful narrative of the destruction that alcoholism has caused in the lives of many First Nations community members. She related how the intergenerational impact of alcoholism has in many cases affected self-confidence and resilience and has stigmatized First Nations people in contemporary urban societies as drunken and diseased:

There's a pain in Aboriginal Peoples... they [other people] just can't say, "Well, smarten up and get a job." When a Native person becomes an alcoholic, there's a whole stigma, much more, bigger stigma involved in it. And I think that alcoholism, or the alcohol, probably changes the chemistry of the blood in a person... My older sister has diabetes; my older sister also is an alcoholic.

"It's a conflict all the time."

The First Nations participants spoke of their experiences adjusting to the broader Canadian society after they were displaced from their traditional territory or land, and how that displacement has had a powerful impact on mind, soul, and body. Their narratives captured how low self-esteem, lack of pride, and identity confusion among their fellow community members disturbed the necessary balance in the emotional, mental, and spiritual aspects of their lives, generating serious repercussions for their physical health. They discussed how imposed decisions often divide their identities. Growing up and working in the broader Canadian system, they are required to follow certain rules and

regulations that are often contrary to their traditional values and identities, thereby creating constant conflict and stress for them. Collette explained this way:

You have to behave on a certain way on the outside, but on the inside you are, you are conflicted. Like, you are dealing with this thing constantly all the time inside of you... they're [government] just ripping the land, ripping things out of the earth, you know and that's a great stress because it's our job as Aboriginal Peoples to look after this land, you know, and it goes against every value and principle... When you see that happening it makes a big stressor and it also makes you very sad.

Phillip shared his sense of isolation when he discussed his days having no friends and social support during his first few years in this city: "That time I didn't have so many friends, 'cause... I didn't want friends (laughs)... I didn't care about others... I just wanted to be alone. I guess, maybe, I was depressed." In addition, participants talked about the factors that affect the necessary life skills required for urban living, such as level of education, language proficiency, level of familiarity with an urban environment, and pace of city life. The limited level or absence of these necessary urban life-skills is not always conducive to their overall health outcomes. These constant adjustment and acculturation processes are other stressors affecting First Nations people's' overall well-being. Literature identified stress as a defining element of life of Aboriginal Peoples with or without diabetes (Rock, 2003). Many Aboriginal Peoples appear to have stressful lives, which is not only linked to struggle for their everyday living, but also to past and present cultural, social and political contexts (Iwasaki and Bartlett, 2006). As Jeff described his Aboriginal community members' continued struggle to adjust to the stressful urban environment in this way:

Being in the city, it's a lot faster lifestyle than they're accustomed to where they come from, being born and raised in the country. And then moving to the city some of them can't cope with it, some of them don't have the life skills. It boils down to lack of education.

“... a lot of people are not educated in the facts of... healthy eating, healthy portions...”

First Nations participants discussed how the loss of traditional knowledge negatively influences eating patterns and subsequently is connected to diabetes occurrence. Their narratives included the colonial attempts to eradicate Aboriginal language, culture, and traditions through government-imposed rules and regulations and the residential schooling system. Added to those measures was the movement of First Nations people to urban centres where social and economic challenges such as discrimination, unemployment, low educational attainment and racism marginalize them in the broader Canadian society and consequently place them on the periphery of information flow about diabetes, and about awareness and access to a healthy diet.

Participants also shared their views on diabetes misinformation and its effect on their communities. They believe misinformation or lack of appropriate information about diabetes and its prevention may be another obstacle to healthy dietary practices. Participants also discussed the discrepancies in health information sharing initiatives among the First Nations people living in different parts of the city of Ottawa. These discrepancies could be due to area of residence, language issues, and other reasons. Charlie, a First Nations diabetic man, thought that limited access or unavailability of education and information about diabetes had a great deal of impact on the disproportionate increase of this disease among First Nations people:

There are lots of misinformation, okay? Some people get the [health] information, others don't. They fail to follow up the kind of education needed, at least that's from my perspectives. I'm saying there are books, but there are people out there who don't have enough education to read or write. Instead of putting it in English, write it in Algonquin or in other native language. ... I'm thinking that people are also misinformed, misguided, they don't know where to go. There could be more information for native people.

Theme Four: Dealing with diabetes

Participants were asked to share their experiences dealing with diabetes in their day-to-day lives as diabetic, pre-diabetic, caregiver, family member or community member. This question was designed to allow participants to discuss a subject familiar to them, and as well, to lead the discussion towards diabetes prevention and management. In addition, it explored whether the diagnosis or first experiences of diabetes triggered any significant emotional or psychological reaction. This question also gave me the opportunity to capture any differences between diabetic and non-diabetic participants in their experiences and in their knowledge of and attitudes towards diabetes. A range of diabetic participants' experiences emerged: a regimented lifestyle, restricted mobility, changing physical states, fear of long-term complication, issues with access to health services, and the cost of diabetes management. Non-diabetic participants seemed to be concerned about everyday issues such as checking blood sugar levels, taking medications, watching the diets related to diabetes, and with the long-term complications associated with diabetes. Linda remarked, "There's the whole [lot of] complication, right? Amputations because they lose the feeling and then they get, you know, damage to their appendages, like foot or whatever, and then they have to get amputated."

When expressing their experiences dealing with diabetes, diabetic participants often turned to the regular care regimen required to manage diabetes. They discussed regular blood sugar monitoring, the taking of insulin or medication, and eating at prescribed times, on a daily basis. As Charlotte said,

My mother recently started taking insulin ... and she has to have it right before she eats... she's gonna now have to do [it] for the rest of her life... I think it just goes back to again the strictness, like you have to make sure you are eating the proper foods, and the proper portions, and exercising regularly, taking your pills or your insulin, just to keep it under control, because... people can get amputations and stuff like that, like different complications for not taking care of yourself properly when you're living with this.

Both diabetic and non-diabetic First Nations participants expressed their concerns about the long-term complications of diabetes, including amputation, kidney damage and vision problems. The issues of restricted mobility and dependence on others were also raised. Diabetic patients, particularly aging diabetic patients, require a great deal of family support in their day- to-day lives. Maxine explained,

If you're an Elder and you don't drive, then you're going to have a family member to pick you up to bring you here or to bring you to the store, make sure you're taken care of, what you need... Your routine's forever changed and you gotta keep on top of that... otherwise you're only hurting yourself.

Participants shared their struggles in managing the cost of diabetes. Liz said, "Sometimes I forget my medication... or else if I don't have the money to get it I have to wait a while to get the money to get my prescriptions... I know it's affected my feet." Participants' narratives presented the inequalities that non-status Indian people face in managing diabetes. First Nations persons who do not have a status card are not eligible to receive the medications or supplies necessary to manage diabetes; those are covered under non-insured health benefits (NIHB). Charlotte said,

You can't take care of yourself as well if you're in lower income... before, my mom wasn't able to pay for her pills sometimes 'cause she was lower income... so sometimes she would just not take them for a month or so or whatever because she couldn't afford to, and then the needles now you have to pay for every month ... they [insurance] pay for half of whatever. But she still has to pay for part, like half, the other half of it... She doesn't have a status card, so she's just covered under her work insurance.

Varying states of acceptance of diabetes and its management were expressed in participants' narratives. Collette, who is over 50, has accepted diabetes as a part of her life and diabetes care as an integral part of her everyday routine. She explained, "[I] set a routine for myself... When I get up in the morning, I have to take my pills, and at night, oh and I also progressed to insulin... I take insulin at night." Jeff, another diabetic participant in his forties, found that taking care of diabetes is a repetitive job:

It requires a lot of time; you have to do it [monitor blood] three times, you know, repetitive. It's highly repetitive throughout the day. ... I used to do it, like, seven times a day and monitor my [sugar level], but now I'm down to like three times a day, even one. ... I've learned just from diet, and eating, you know how I can maintain what I have, how my body works or how much food I eat or how much sugar.

In addition, participants also expressed the proactive changes they made in their lives in order to cope with diabetes. Charlie said, "I am realizing that if I do not change my life as soon as possible... I am going to lose my eyes, my kidneys will be gone, I am going to develop other consequences." Participants also shared about how they deal with unstable physiological states on a daily basis, including tiredness, lack of clarity in thinking, and numbness in body extremities. Collette was worried about the long-term complications of diabetes. She explained, "I'm always worried about circulations in my legs. That's what I worry about that."

In the discussion about Aboriginal and non-Aboriginal health service providers, participants expressed appreciation for the services they receive from non-Aboriginal doctors, but said they hope to get more Aboriginal health service providers who are familiar with their background, culture and history, such as providers from their own communities. As Liz said,

I have my own doctor, but I try to go to some of the workshops [at the Aboriginal health centre]^{xi}... just for refresher. I mean you learn all this stuff, but it's good to go once in a while and just see any updates... but sometimes I don't like going 'cause sort of you're in and out, too fast, he [physician] doesn't give you enough time, you know... I enjoy when [an Aboriginal diabetes prevention coordinator] comes down. I always, you know, sit and talk to her, she's always very helpful.

Philip, a First Nations man in his twenties with diabetes, said, "No, I just go to the regular doctor on [mainstream diabetes clinic]... Oh, oh, they treat me good. Last time I've been there, yeah, they treat me well." Family members generally viewed having Aboriginal doctors as the best option for their diabetic relatives. Charlotte gave her reasons for this viewpoint:

You're not as comfortable as when you're with your own people and I don't think that they would get taken care of as good because they might be shy of talking

about certain things, and it's just a whole different feeling when you're in the mainstream compared to when you are part of a community.

The above discussion reflects the varying experiences among First Nations people living in an urban area while dealing with and managing diabetes. Participants' narratives demonstrated how patients, caregivers, and family members all fear the long-term consequences of diabetes. Diabetic patients shared conflicting opinions about health service providers of non-Aboriginal descent, while family members and non-diabetics think Aboriginal health service providers would be the best option for those dealing with diabetes. First Nations participants also identified the increasing need for personal care support due to the aging population in their community. Finally, costs associated with diabetes treatment and management take on a different significance when access to services is different for status and non-status Indian people.

Theme Five: Preventing T2DM in Urban Contexts

“Well, it's just making everything relevant to [our] lives.”

When asked for their views and expectations about diabetes prevention, participants indicated that applying a traditional approach along with a biomedical approach could bring significant contribution to diabetes prevention in First Nations communities. Such approaches could be applied to influence the two most frequent and biomedically-oriented modifiable risk factors: diet and physical activity. Several participants said preventive services tend to overlook the linguistic, cultural, economic, legal, and geographic diversities that exist within and between Aboriginal subpopulations.

Participants had diverse opinions about the best method of diabetes education. They called for more hands-on demonstrations, workshops on cooking, meal planning, and family budgeting, and use of role models from their own communities. They believed that these endeavours could help people to meet their basic needs and could eventually help to prevent or manage diabetes.

Collette noted, “Words and demonstrations probably are two different things. You know, you need a kind of a role model or even a cooking class, something you don’t think of... basic things like that would help.” Participants also discussed how diabetes education methods should recognize and respond to the learning patterns of Aboriginal clients. In this regard, their comments indicated that Aboriginal Peoples might be attracted to practical demonstrations, audio-visual presentations, or even knowledge-sharing circles. These perceptions were reflected in Charlotte’s narrative,

People learn in different ways, so if I see a pamphlet that’s all in words, then that might not sink into my brain... I might not understand it as well as maybe if I’ve seen pictures or if I’ve been speaking to maybe a public health nurse, or something like that.

Participants also emphasized the need to educate their children from an early age, and stated that parents have a major role in educating their children about good dietary practices and healthy levels of physical activity. In this regard, First Nations participants mentioned some on-going diabetes education programs at Aboriginal organizations and health centres that involve and engage parents as educators. They identified the need for more of these educational initiatives and for more books about diabetes in various native languages. Incorporating diabetes education into the public school education system to target elementary children was suggested and Charlotte added that “having Elders go into the school more often would be helpful.”

Although participants acknowledged the prevention and management services they receive at the mainstream health centres, their narratives reflected their preference for Aboriginal health centres. They stated that at the mainstream health centres, special programs are provided for immigrants or other ethnic communities; for Aboriginal Peoples, however, there are no such programs. As Charlie said,

Other places are just, like, multicultural, you know, nothing specific to Native people... I look for information for example [at a mainstream health centre in the city], I don’t find stuff like that I get in the Aboriginal health centre...

Community members thought that diabetes education offered by their own people in culturally appropriate ways would improve diabetes prevention. They also acknowledged the challenges of providing culturally specific services in urban settings where Aboriginal Peoples are of diverse origin and backgrounds. Charlotte raised this issue in her comments:

You can't please everyone. You know? If we make it really specific... but like it's making a step in the right direction at least... for instance, here I live in Ottawa, I'm from BC. So the language is completely different and there are hundreds of languages across Canada. So I think Aboriginal-specific, especially for urban Aboriginal Peoples, would be better.

First Nations participants' narratives demonstrated that, overall, people want the health services to be meaningful for their community members. Services that are developed and implemented in culturally appropriate ways and offered by health service providers of Aboriginal origin are most likely to succeed and respond to the needs of urban First Nations people.

“...just to let people know about diabetes”

To enhance health service provision and raise awareness about diabetes, various initiatives such as diabetes information programs provided at Aboriginal organizations and gatherings of Aboriginal Peoples, and use of social media may work well in the urban setting. Interviews demonstrated that sharing basic information or exchanging ideas about symptoms of diabetes, its risk factors, diet and physical activity patterns, and ways to stay healthy can help First Nations people a great deal. Diane noted the need “just to let people know about diabetes ... letting people know about the symptoms.”

Participants' suggestions for these opportunities included advertising about sharing circles on diabetes in popular community events such as powwows, musical events, and harvest feasts; organizing workshops to promote healthy lifestyles including traditional cooking; planning family

budgets; and forming diabetes support groups for First Nations or Aboriginal Peoples in various locations across the city.

“There always [needs to be] healthy alternative choices...”

First Nations participants discussed the need to have accessible and affordable healthy options for their community members, including access to physical activity programs, and to traditional and nutritious food. Participants’ narratives also captured the need for flexible and supportive work environments for accessing healthy activities. Darren’s reasons for his lack of physical activity were specific for his own situation, but applicable elsewhere:

When I’m done working, and today I’m working from 8 to 6... I wish I did have time to get like... [an] hour workout a day... I don’t like going to gyms, like a lot of people ... I like a couple people, that’s it... A lot of people are intimidated because....you know, I’m heavy and I’m intimidated to go around with a bunch of skinny people running.

The research participants indicated that there is a strategic need to accommodate the varied requirements and preferences of First Nations people and to make those options available in public places. Darren also said, “Maybe the government could... have these places [for physical activity] available where maybe six people could go work out, instead of like 20 or 30 people. ... But I think they would get more people working out.” First Nations participants also shared varied perspectives about the role of policy makers in diabetes prevention, for example, in strategy development or initiatives to reduce the availability of unhealthy food. Diane, in this respect, said, “Well, if you could just, like, you know, get rid of people who own pop and chips... the government could just cut them out... and just, like, you know, start funding the other places [about] eating well.” Obviously, strategies need to be developed to minimize the availability of unhealthy foods and lifestyle choices and to create supportive environments for adopting a healthy diet and lifestyle.

“It would be nice to have our own Aboriginal People running it.”

While talking about their experiences with diabetes management, First Nations participants said that services offered by providers of their own people could make it more responsive to diabetes prevention. I understood from their narratives that being able to talk to a doctor or other health professional from their own culture was less daunting and more reassuring than otherwise, as already stated in the published literature (Kurtz et al., 2008). Research also revealed that reluctance to use health services among First Nations people may often lead to medical conditions being undiagnosed, untreated or unmanaged until extreme health issues have developed (NCCAH, 2011a). Lack of cultural knowledge and lack of awareness about First Nations people among health service providers are two reasons for this. Charlie, for instance, said, “I just think they need to have more Native doctors and nurses... The community here in Ottawa just started to do that.” Linda, on the other hand, recognized that there is a shortage of Aboriginal nurses in Aboriginal health centres. She said, “Probably more nurses, like more health care professionals...something specifically Aboriginal, for Aboriginal Peoples to feel comfortable... or people that are experienced [in Aboriginal culture]. It would be nice to have our own Aboriginal People running it.” It is evident from these statements that there is a profound need for developing, recruiting and retaining more health human resources in urban centres to order to improve the health of First Nations people.

“I don’t want to be left behind. You need to include everyone.”

First Nations participants saw a strong need for raising awareness in Canadian society about Aboriginal Peoples. Participants believed that knowing more about Aboriginal Peoples—their history, demography, culture and traditions—would help others to understand the realities of Aboriginal life in Canada and to respond to their ongoing struggles and associated needs. Increased knowledge and awareness might help reduce stereotypical notions of Aboriginal Peoples, which, in turn, could reduce the stigma associated with this population group in Canada. Liz, for instance,

said, “I think [there’s] a lack of knowledge [of] Aboriginal People... sometimes they [people in general] say ‘Oh, these Aboriginal People, they always want this and that and this and that,’ but they don’t look at why they want it or why they need it.” Many participants brought up the issue of stereotyping of Aboriginal Peoples, their culture, history, legal status, and socio-economic backgrounds in Canada. Charlotte expressed her opinion this way:

I think there are still a lot of stereotypes. Children that are not Aboriginal, they will not understand, and if they see something like Pocahontas or something, they are not going to know anything about culture. But bringing culture and people like that into schools and making things fun [is something that is required].

Moreover, participants also discussed the need for an increased understanding about the geographic distribution of Aboriginal Peoples in Canada. More Aboriginal Peoples are becoming urbanized and their needs in urban areas are very different from those of Aboriginal Peoples living in rural or reserve areas. Charlie said, “They (people in general) need to understand there are people who are not just born on reserve, not all Natives come from reserves. ... You need to include everyone.” Participants particularly emphasized the need for making health service providers aware of Aboriginal Peoples’ needs, given that in urban areas First Nations people often access services in mainstream health centres. Linda remarked that health care providers at Aboriginal centres “have to have experience... if they’re not Aboriginal they have to have experience working with Aboriginal [People].”

These discussions indicate that there is a need for more awareness about Aboriginal cultural diversities, the geographic distribution of the population, their associated needs among Canadians and, more specifically, among health service providers. Increased awareness may reduce stereotyping and stigmatization about Aboriginal Peoples and subsequently could reduce inequities in access to health services for First Nations people.

“They need to understand more what we’re going through.”

When talking about preventive health services, participants recognized the huge contribution that health service providers make despite their limited time, but acknowledged the heavy workloads experienced in their practices, particularly at the Aboriginal health centres. Participants also mentioned the contributions of allied or unregulated health professionals, including prevention coordinators, case managers, diabetes educators, social workers and outreach workers. Their comments clearly demonstrated the nature of coordination needed from different sectors to enhance the determinants of health and thereby prevent diabetes. As Charlie said, “They are leaders, people who are trying to make difference. I noticed outreach workers; they do their best to help everyone find a home, get help in education, more programs, more educators, facilitators.” Open-minded and accommodative health service providers might increase interest in accessing services among the First Nations community. Participants, however, recommended that health service providers should acquire improved understandings about Aboriginal Peoples, their colonial past and present realities, their struggle and needs in urban centres. Linda, for instance, stated, “I think doctors are aware, nurses are aware of the problem, but I think they have to be more aware or proactive in advocating for Aboriginal clients.”

These statements clearly indicate the major role that health service providers play in diabetes prevention. However, becoming more aware of First Nations people’s diverse needs might make health service providers more successful in their endeavours to prevent and manage diabetes among First Nations people.

“... there should be more networking among organizations.”

First Nations participants discussed the need for services to be more integrated, coordinated, comprehensive and responsive to the needs of the communities. Their narratives

usually recommended improved connections among service organizations to increase success in preventing diabetes. Maxine, for instance, was definite:

I think there should be more networking among organizations. ...If you want to target Aboriginal communities, they need to network more and they need to advertise throughout all the centres. ...the health centres, Friendship Centres, woman's support and there's the shelters.

Participants also criticized the limitations of the existing methods of information sharing among the organizations, mostly done through electronic media. Instead, they recommended the development of a network of Aboriginal organizations or diabetic people. They discussed about the need for community health centres to open programs for Aboriginal Peoples similar to the programs for other ethnic groups. Charlie noticed how "the community centres are opening up to other communities—Chinese, Polish, [other] immigrants—but I don't see much for the Natives."

Participants called for increased collaboration among organizations to develop engaging and educational family-friendly programs about diabetes prevention. Maxine expressed these thoughts:

In order to improve overall preventive services, it is very important to make it a family affair. ... Why not have one program geared for children specifically to learn about it [diabetes], just so they can get a grasp and then for the parents to know it more, and then teens, 'cause not everybody has the same attention span or learns the same way. They should have, you know, more family-friendly programs... especially more outdoor stuff...'cause people need to stop playing Nintendo, sitting at the computer.

"...if there were more jobs for them and then... more education... health care..."

Participants thought that improving employment situations would improve the social determinants of health and ultimately help prevent diabetes. Participants felt there was a lack of real interest among policy makers to improve the health of their community members, although they acknowledged that the ultimate responsibility for diabetes prevention was an individual's. Since individuals are often limited in their capacity to follow healthy lifestyles, First Nations

participants suggested that policy makers must have a desire to help Aboriginal Peoples, to assess their needs, and to improve their situation. Maxine said,

I think they should take a look at the need of it [more education and employment]... it doesn't just affect Native people...but it affects everybody and it's only getting worse. I'm glad produce isn't taxed and stuff (laughs) but I don't know what they can do... trying to think outside the box for them, the decision-makers.

First Nations participants shared some thoughts about their fellow community members' urban life skills. Their perceptions indicated that employers must understand and accommodate Aboriginal migrants' cultural practices and needs when recruiting them. Participants also recommended that the service sectors be more flexible to accommodate people of diverse cultural orientations. Darren, for instance, had this to say: "... Natives... weren't built for 9 to 5. ... It just was never in them... something that's been going on for thousands of years... they can come in [to work] but they like to do it [at their own pace]." Jeff thought,

The government's not doing a good enough job... hourly wages should be increased, you hear everything is going up in the economy, prices and everything goes up but nobody's salary goes up (laughs). And it's just very hard since it's sometimes depressing for some people. They feel like they can't afford shelter, food, and clothing.

First Nations participants stated that in order to improve the basic determinants of their health, such as income and education, strategies are required to encourage employers to make changes in the work environment. These strategies should promote flexible work hours, the creation of a supportive environment for physical activity and improved understandings about employees' needs.

"It takes funding to keep up with everything"

The challenges to the implementation and sustainability of many health and social service programs critical for diabetes prevention and management were understood by First Nations participants. They shared some new ideas to make diabetes prevention strategies available to their community members within the context of limited funding availability. These ideas included

travelling kiosks, presentations at elementary schools and cooking classes for parents. When discussing important community needs, Charlie noted the need for funding to

... keep up with everything, to facilitate or do these things to educate people. ...If you don't have funding, the kiosk [sidewalk information] would be next possible thing to do. ... I'm Native, I need Native information, cultural information. ...I think people tend to look for specific information for their own community, information all the same, but they need it for their own group.

Literature reveals that First Nations people benefit from the most comprehensive health programs of all Aboriginal Peoples. But these health programs are based on a complex and multi-faceted funding system, which largely depends on community size, level of organization, and identified needs (NAHO, 2002). Careful review of literature suggest that funding for Aboriginal health and social programs comes from various sources including the Ontario Ministry of Health and Long Term Care (MOHLTC), the Federal Ministry of Health, the Department of Heritage, community and social service agencies and various other fundraising initiatives. Under the Métis, off-reserve Aboriginal and Urban Inuit Prevention and Promotion (MOAUIPP) stream of Health Canada's Aboriginal Diabetes Initiative (ADI) (Health Canada, 2012), community health promotion and prevention projects receive funding for urban First Nations and Métis people. Many diabetes prevention and management programs for off-reserve Aboriginal communities in Ontario are offered by the Southern Ontario Aboriginal Diabetes Initiative (SOADI) which is funded by MOHLTC (Ontario Ministry of Health and Long Term Care, n.d.). Targeted federal funding programs related to diabetes, early childhood development and others support a substantial proportion of Aboriginal prevention and promotion efforts in the community through one-time project grants, longer-term funding, transfer agreements, and other initiatives. Urban community people expressed preference for a more seamless, flexible and sustained funding system, while indicating their mixed feelings for targeted programs and program administration problems. Collette declared her ideas on funding:

In Ottawa I think it's very disjointed, because I think there's competition for funds... the funding all comes from the same thing and they said, 'Ok, you have to join in

now together... you know we'll split the funds.' So if you get a smart proposal writer over here, they'll get the funds. So there's competition, and it's not good to compete like that.

Due to their experiences with various program discontinuities from funding shortages, participants also expressed doubt that diabetes prevention among First Nations people is a policy priority. They think that funding is essential for running various social programs that can contribute to improving social determinants of First Nations health and diabetes prevention. With reference to programs, Liz said, "It's always funding. You know your funding ends so where do we go from here. You don't have any money, so you can't do it anymore... and there's the poor people, lost again..." Participants like Linda thought that as diabetes has become an epidemic in First Nations communities, its prevention may not be considered a priority for policy makers. "Maybe providers should go after the funding and provide the service, and maybe do a needs assessment and then ask for that type of funding."

"[Our] people have a strong resilience"

When asked to identify strengths in their communities that might be conducive to diabetes prevention, participants responded with myriad factors that directly or indirectly can play a role in diabetes prevention. Many participants, like Diane, noted the supporting role that community plays in keeping its people healthy: "Yeah, the community, they'll help you to eat healthy, make healthy choices." Participants undoubtedly identified the sense of community as a strength among their people. Charlotte, for example, reinforced the importance of community:

... knowing about the rest of the community and people who are dealing with it [diabetes]... people want to be there for their children, their grandchildren and stuff like that. And they want to be good role models to them as well. ... I just think that having that kind of attitude and that kind of thing in the community is definitely very helpful for that.

Participants also mentioned the key role that Aboriginal organizations such as the Native Friendship Centre and Aboriginal health centres play in establishing connections among all

Aboriginal Peoples in Ottawa. Fred in this regard said, "... there's people out there in the Aboriginal health centre who do give advice on how to not get diabetes... yeah, those pamphlets and all that and they have courses... I think they're pretty good for that." Community members like Liz also identified various organizations like the Friendship Centre and their role in diabetes prevention and management, when she said,

We have a lot of diabetes clinics, a lot of workshops, one [prevention coordinator] comes down from [name of a geographic area] and they have workshops here [Aboriginal organization], they have workshops at [the] Aboriginal health centre, so there's continuous workshops that people can go to... The Aboriginal health centre has a clinic there, so if they want to talk to someone, they can go over there [to] talk to them.

First Nations participants found that being in an urban area where various services are accessible and being away from life in an isolated and lonely reserve can sometime help break cycles of abuse and violence, thereby improving overall health and wellness. Jeff's experience illustrated how the availability of resources and services can make the urban environment a relatively 'protective' one. He said, "Being more urbanized than rural, that cycle's breaking abuse... 'cause being back on the reserve, you're isolated and alone, you don't have the resources and services available to you as you do in an urban centre like Ottawa." Maxine agreed:

You have more access to health professionals here than you do back home. I would say if you needed to see a specialist then you need to make an appointment and fly all the way up here, and it would be this big thing, but in the city there's more access to, like I said, professionals. ... Plus there's public transportation up here, [people] can, you know, get up and go if they want, not like back home. ... They have places that are most likely in proximity to where they live, [but] they're not really limited to one hospital or one thing here, there's more.

First Nations participants perceived available diabetes programs as a significant community strength, since they offered diabetes education and screening, provided venues for sharing experiences and exchanging ideas, and engaged people in physical activity and lessons for nutritious food selection and preparation. Collette said that she had seen many diabetes programs in the communities that gathered people together, encouraged walking,

exercising, and eating nutritious inexpensive food like legumes that were accessible to even poor people. The personal qualities of resilience and resurgence among community people were also identified as community strengths by the participants. Their narratives demonstrated resilience as many had fought adverse situations over the years; they also showed resurgence among young people who traced their roots and learned their traditions and languages, thereby strengthening their self-esteem. Charlotte's narratives captured her belief in these two qualities:

I think [our] people have a strong resilience, like. We've been through so much and yet we're still fighting, and we're still doing what we can to survive, and... I think that's going to continue and you can see like a resurgence of the young people... who are looking more to getting into their culture, who are looking more to Elders to learn... about the past and how to move forward, and just be a strong person and a good contributor to the overall community.

Generally, it is impossible to state unequivocally that an urban environment worsens or improves the living conditions of its First Nations residents. However, living situations in reserve or urban communities determine the general outline of their lives.

“... there is a higher need than they are able to fulfil”

Participants identified a range of community needs, including the need for information surrounding diabetes, its prevention and management; more health care providers and flexible hours of operations for clinics; access to health centres; and the pressing needs of diabetes management and prevention. They indicated the need for awareness, education, and initiatives to prevent and manage diabetes. Their narratives spoke to the need for improved connections among community members with similar experiences, interests and origins who are dispersed all over the city of Ottawa. In addition, participants discussed how their community members need improved access to physical activity. Darren explained how he “got a whole crew of guys here that want to go work out with weights but they have no weights.” So space and place are definitely the other community needs identified by the participants.

First Nations participants expressed their need for more health service providers, particularly of Aboriginal descent. A local news report revealed that Aboriginal-specific health service programs offered at the Aboriginal organizations are funded through multiple sources including the Ontario Ministry of Health and Long Term Care, community and social services agencies, and various other initiatives. Moreover, lack of funding predictability makes it difficult for the centre to hire full-time and permanent staff members, and sustainability of preventive programs and services becomes questionable (Ottawa Citizen, 2011). The report stated that the disjointed and unpredictable nature of funding makes it difficult for Aboriginal Peoples with chronic illness like diabetes to get the timely and continuing care they need. Needs are even higher at the Aboriginal health centre where, although culturally appropriate health services are available, waiting lists are long (Ottawa Citizen, 2011). Linda added to the discussion:

[O]ur health needs are, I think, a lot more serious because we have a much more higher instances of disease and, you know, so I think it should just, it should be a priority, like, across the board for everybody, but also a priority to receive care, you know, to offer care for Aboriginal People especially in the city because their problems don't go away because they are not living on a reserve. It doesn't make a difference. They bring the same problems here.

Participants expressed the wish to have diabetes workshops run at different locations across the city, which would generate greater turnout and improve access to information about diabetes prevention and management. Charlotte thought that educational workshops are important for the community to prevent or deal with diabetes:

... more workshops, and... there needs to be different locations, different times. Some people are working in the daytime and can't come during the day or, like, having them days, weekends, evenings; having, maybe, available childcare, if people are single parents and have to take care of their children or even having a child friendly [area] where some of the children can sit in and listen and learn something themselves.

Charlie expressed another very important need when he remarked, “There is a need for a system navigator. I see some people come to this city [with] no idea where to go, how to navigate their ways... It’s like a maze.”

Summary and Conclusion

First Nations’ narratives, as captured in this chapter, generated insights at many levels, most significantly the illustrations of the origins of diabetes and the importance of traditional cultural practices in preventing and managing the disease. First Nations participants attributed T2DM to various sources, including historical contact and policies affecting their present circumstances, the lack of capacity to access healthy food and physical activity, food selection and preparation, the role of education, lack of contact with their culture and tradition, and family history. These understandings of diabetes causation are very similar to those of Métis participants, health service providers and policy makers as presented in the next two chapters (Chapters 6 and 7 respectively). Additionally in accordance with Métis and professional participants' perceptions, First Nations' depictions included the realities of dealing with everyday necessities as diabetic and non-diabetic persons. These included cost of living in urban areas, employment issues, lack of education, housing, social isolation, and access to health services. Geographic location in urban areas appears to be another significant determining factor, in that First Nations people’s access to traditional diet is limited or lacking; there is excessive exposure to fast food and limited opportunities for physical activity. The issues that impede access to healthy diets and physical activity and make First Nations susceptible to diabetes onset are complex, intersectional and multi-layered. However, the three overarching determining factors identified in participants’ narratives were colonization and neo-colonialism, geographic location (urban context), and diversities in culture, legal and socio-economic status.

First Nations participants identified solutions to modify these determining factors or in other words management and care of diabetes that require action from many partners working at many levels. First Nations participants across age groups, genders, and occupational and socio-economic statuses see the need for comprehensive and multi-faceted responses to the intersecting determining factors, in order to halt the increasing incidence of diabetes in their communities. They specifically mentioned about better integration and coordination among local health and social service organizations to offer more comprehensive and responses in order to address the underlying intersecting determinants of health. More specifically they wanted the prevention and management strategies to become more relevant to their lived realities in urban sectors and to provide healthy alternative choices, for instance, access to physical activity programs, and to traditional and nutritious food. First Nations participants expressed the need for prevention strategies that are sensitive and appreciative of language diversities and, as well, consider the variations in cultural and legal statuses within and between First Nations groups. They expressed their need for culturally appropriate services at the level of respective 'nation', for example they wanted the services to incorporate Cree or Mohawk cultural traditions but at the same time they were also aware of the real world challenges associated with such expectations being true. All in all, their perceptions illuminated the need for appreciating the existing cultural diversities within and between Aboriginal groups in health service provision and policy making. Although they acknowledged the services they receive from mainstream health centres but their preferences speak for more Aboriginal health services provision by Aboriginal service providers. To this end, First Nations participants expressed that preventive services must be inclusive in nature by having more awareness of urban Aboriginal Peoples' needs. They identified barriers working against diabetes prevention; but also identified community strengths of traditional knowledge, resilience, resurgence, togetherness, and community leadership. In First Nations participants' view diabetes

prevention and management strategies must be developed based on these community strengths. Similar perceptions about diabetes prevention and management by Métis participants are presented later (Chapter 6). In First Nations' view, making prevention strategies relevant to their lives would mean improved chances to respond to the factors they identified for diabetes incidence.

In the following table (Table 2), I have presented thematic categories and sub-thematic categories emerged after narrative analysis with corresponding constructs of the 'social determinants of health (SDOH) and intersectionality approach to depict how each approach interpret the data. Wherever applicable, in the following table (Table 2) headings of the sub-thematic categories are denoted by participants' quotations. Under the column of 'SDOH constructs', I have included Public Health Agency of Canada (2011) listed social determinants of health that correspond as appropriate to the thematic or sub-thematic categories. These factors under 'social determinants of health constructs' help us to understand the context of Aboriginal diabetes at a much wider level. The column under 'intersectionality' however presents intersecting factors specific to urban First Nations peoples as reflected in the participants' narratives above. For instance in the Table 2, a major theme "Understanding T2DM Occurrence in an urban Context " and its sub-thematic categories those are denoted by participants' quotes correspond to the social determinants of health constructs such as social environments, physical environments, income and social status, education and literacy, gender, personal health practices and coping skills, and social support networks; as well as with the emerging intersecting factors such as historical legacies, legacy of colonization, legal status, social status, poverty, loss of traditional knowledge, geographic location- urban context and urban planning under the column intersectionality. In other words, social determinants of health constructs help in understanding the generic determinants of health that contextualize diabetes occurrence among First Nations peoples living in urban areas , whereas intersectionality offers more nuanced and complex explanations to the local context that create

First Nations people's likelihood of developing diabetes. For instance, lack of education and income as well as poor access to healthy diet and health services determine First Nations' vulnerability to diabetes; people who experience all of these struggles at the same time are impacted in a way that defies a simplistic additive explanation from social determinants of health perspectives. Hence intersectionality by going beyond the additive approach of social determinants of health and not giving primacy to any one determinant over another, and considering the lived experiences of First Nation people in urban context not only fills the gap in our understandings of diabetes causation but also provides opportunities to rethink conventional models of health service and policy planning and implementation. In this respect we can see in the following Table 2, how one major theme "Preventing T2DM in Urban Context" and its sub-themes as denoted by participants' narratives corresponding to the generic social determinants of health constructs such as, income and social status, education and literacy, employment/ working conditions, health services, social environment and culture; as well as with the more specific emerging intersecting factors such as recruitment and retention of Aboriginal health professionals, healthy public policies, community strength, income support and culturally appropriate health services under the column intersectionality can provide information to act upon during diabetes prevention. Because intersectionality demands that health service providers and policy makers remain open to the process of complex intersections between the multiple determinants of health when they want to provide equity- focused solution to their clients. Therefore while developing and implementing diabetes prevention and management strategies, it is necessary to pay a focussed attention on the structural drivers of this epidemic of diabetes that produce differential vulnerabilities depending on one's intersectional standpoint and sustained consideration of the social context.

Table 2: First Nations' Perceptions

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
1. Place and Movement		Income and Social Status, Employment/ Working Conditions Health Services	Better Access to Health and Social Services, Better Access to Education and Employment, Attractions towards Urban Living
2. Explaining Diabetes		Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Biology and Health Services, Gender, Culture	Legal Status, Social Status, Historical Legacies, Contemporary Government Policies, Limited Access to Health Services, Limited Access to Proper Diet and Physical Activity, Access to Education/information, Poverty, Lack of Social Support, Gender Geographic Location-Urban Context
3. Understanding T2DM Occurrence in an Urban Context	"...a lot of stuff would have to [do] with it historically."	Social Environments, Physical Environments	Historical Legacies, Legacy of Colonization, Government Decisions-Restricted Fishing and Hunting Rights, Geographic Location-Urban Context
	"... it is not a choice when you are in that situation"	Income and Social Status, Education and Literacy, Employment/Working Conditions, Social Environment, Gender, Health Services, Physical Environment	Legal Status, Social Status, Historical Legacies, Contemporary Government Policies Limited Access to Health Services, Limited Access to Diet and Physical Activity, Access to Education/Information, Poverty, Lack of Social Support, Gender

Table 2: First Nations' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
<p>3. Understanding T2DM Occurrence in an Urban Context (contd.)</p>	<p>"Easy, you just go down the street and it's there"</p>	<p>Income and Social Status, Physical Environment, Social Environment, Personal Health Practices and Coping Skills</p>	<p>Exposure and Easy Access to Fast Food, Legacy of Colonization, Loss of Traditional Knowledge and Teaching, Geographic Location - Urban Context, Urban Planning, Government Policies</p>
	<p>"... alcohol is the result of a lot of things."</p>	<p>Income and Social Status, Social Support Networks, Physical Environment, Education and Literacy, Healthy Child Development</p>	<p>Legacy of Colonization, Joblessness, Poverty, Lack of Self-Esteem, Compromised Diet and Physical Activity Geographic Location-Urban Context</p>
	<p>"It's a conflict all the time"</p>	<p>Personal Health Practices and Coping Skills, Social Environments, Physical Environments, Income and Social Status, Social Support Networks, Employment and Working Conditions</p>	<p>Continued Colonization, Government Policies, Contemporary Government Policies, Lack of Social Support, Geographic Location - Urban Context</p>
	<p>"...a lot of people are not educated in the facts of... healthy eating, healthy portions..."</p>	<p>Income and Social Status, Social Support Networks, Education and Literacy, Employment/ Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Gender, Culture</p>	<p>Historical Legacies, Residential Schools, Loss of Traditional Knowledge and Skills, Lack of Education and Survival Skills in Urban Areas, Lack of Culturally Appropriate Health Services, Pan-Aboriginal Approach</p>

Table 2: First Nations' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
4. Dealing with Diabetes		Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Biology and Genetic Endowment, Health Services, Gender, Culture	Poverty, Legal Status, Social Status, Income, Limited Access to Healthy Diet, Limited Access to Traditional Food, Lack of Social Support, Geographic Location-Urban Context, Lack of Culturally Appropriate Health Services, Pan-Aboriginal Approach
5. Preventing T2DM in an Urban Context	“Well it’s just making everything relevant to [our] lives.”	Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Gender, Culture	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Income Support, Life-Skill Training, Culturally Appropriate Health Services, Culturally Appropriate Health Education, Engaging Local Aboriginal Organizations
	“... just to let people know about diabetes”	Education and Literacy, Health Services, Personal Health Practices and Coping Skills	Culturally Appropriate Health Services, Culturally Appropriate Health Education, Raising Awareness, Healthy Public Policies
	“There always [need to be] healthy alternative choices...”	Income and Social Status, Employment/ Working Conditions, Social environments, Physical environments, Culture	Healthy Public Policies

Table 2: First Nations' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5. Preventing T2DM in an Urban Context (contd.)	"It would be nice to have our own Aboriginal People running it."	Health Services, Personal Health Practices and Coping Skills, Culture	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Healthy Public Policy, Education Support, Recruitment and Retention of Aboriginal Health Professionals
	"I don't want to be left behind. You need to include everyone."	Education and Literacy, Social Environments, Physical Environments,	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Culturally Appropriate Health Services, Culturally Appropriate Health Education, Healthy Public Policy, Geographic Location-Urban Context
	"They need to understand more what we're going through."	Education and Literacy, Culture, Social Environments, Physical Environments	Cultural-Competency Training for Health Professionals, Recruitment and Retention of Aboriginal Health Professionals, Engaging Local Aboriginal Organizations, Elders, Traditional Teaching, Geographic Location-Urban Context
	"... there should be more networking, among organizations."	Health Services, Social Support Networks, Education and Literacy, Social Environments, Physical Environments, Culture	Communication and Collaboration Among Local Organizations, Communication and Collaboration among Aboriginal and Mainstream Organizations, Healthy Public Policy, Geographic Location-Urban Context

Table 2: First Nations' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5. Preventing T2DM in an Urban Context (contd.)	"...if there were more jobs for them and then... more education... health care..."	Education and Literacy, Employment/Working Conditions, Health Services, Social Environments, Physical Environments	Income Support, Life-Skill Training, Healthy Public Policies, Relevance to the First Nations Culture in Curriculum, Engaging Local Aboriginal Organizations
	"It takes funding, to keep up with everything"	Social Environment, Health Services	Health and Social Service Programs, Healthy Public Policies, Targeted Government Funding, Program Sustainability and Issues with Program Administration
	"[Our] people have a strong resilience..."	Income and Social Status, Employment/Working Conditions, Health Services, Culture, Social Support Networks, Social Environments	Traditional Knowledge, Community Strength, Elders and their Wisdom, Local Aboriginal Organizations
	"... there is a higher need than they are able to fulfil."	Health Services, Education and Literacy, Employment/Working Conditions, Personal Health Practices and Coping Skills, Culture, Social Environments, Physical Environments	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Income Support, Life-Skill Training, Culturally Appropriate Health Services, Culturally Appropriate Health Education, Engaging Local Aboriginal Organizations, Geographic Location-Urban Context.

Chapter 6: Métis Perceptions of Diabetes

Métis are descendants of relationships forged between Indian women and early European settlers in Canada. They have a unique history, culture, and language as they live in two worlds-- a First Nations and a western one. By the early nineteenth century, the Métis flourished primarily in the Red River region, now Southern Manitoba in Canada (Bruce et al., 2003). The contemporary population, however, is dispersed all over Canada. The majority of the Métis today live in the Canadian provinces of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. Like other Aboriginal groups, Métis people also felt the impact of colonization, changes in subsistence patterns, and subsequent appearance of new diseases such as diabetes.

Although diabetes is a relatively new disease in the Métis population, it is becoming an increasing concern for them. An 11.2% age/sex standardized prevalence rate of diabetes was found among Ontario Métis, a rate nearly 25% higher than that of the general Ontario population (Shah et al., 2011). Another recent study by the Métis Nation of Ontario (2012) revealed that the crude prevalence of diabetes was nearly 40% higher in the Métis population than in the general Ontario population. Even after age and sex standardization, diabetes prevalence in the Métis population was found to be higher than that in the general population. Furthermore, a study by the Métis National Council predicted that “[the] high rate of under-reporting on statistical surveys in the Métis population means that the actual prevalence of diabetes may be considerably greater” (Métis National Council, 2006).

The objective of this section is to present, through direct quotation from the Métis participants of this research, their perceptions surrounding diabetes and its prevention. As in the previous chapter, the discussions with Métis participants are presented in thematic and sub-thematic categories in the following sections and subsections. Similar to the previous chapter, here

also order of themes follows the order of questions in the interview guide that I used during data collection phase. The order of themes basically the result of my undertaking of inductive coding (based on interview guide) and deductive coding (emerging sub-themes) of data.

Theme One: Place and Movement

In their responses to the preliminary questions regarding place of birth, length of residence in urban areas, reasons for the move to this urban centre, and involvement with local Aboriginal communities and organizations, Métis participants revealed diverse rationales and experiences. Similar to the First Nations people, Métis participants often moved to urban areas due to employment transfer, new employment prospects, or better educational opportunities for their children. Participants also listed personal lifestyle choices as another factor in their decision to move; some of them simply wished to live in Ontario. Six of the 15 Métis participants were born and raised in Ottawa, but moved back and forth between Canadian cities; consequently, they spent relatively longer segments of their lives in urban centres than the First Nations participants. The remaining nine of the 15 Métis participants moved to Ottawa from their birthplaces, primarily Manitoba, Saskatchewan, Quebec, and other parts of Ontario. (See Appendix 13 for demographic details of the Métis.) Participants' involvement with local Métis or Aboriginal communities included taking part in community events, social and business networking, and health information access. As captured in the following comments, community events such as powwows, community entertainment, community kitchens, drumming and beading workshops, and strawberry picking, among others, had great therapeutic and educational influence in Métis participants' lives.

Theme Two: Explaining Diabetes

Métis participants explained diabetes from the perspective of patient, family member, community member, caregiver, co-worker, and friend. Some understood it as a disease caused by

factors like substance abuse or unhealthy diet, while others talked about the pain of witnessing the disease's management and progression as a family member or a caregiver. They also expressed their interest in taking action to prevent and manage diabetes. Magnus, a diabetic Métis male who is over forty said, "I have the advantage of being in a position that I know about [diabetes]... I knew diabetes is chronic: you've got it once you've got it. ... Go and do something about it."

As did First Nations participants, Métis participants stated that substance abuse can be one of the precursors of diabetes. Isabelle, a Métis female in her thirties, connected substance abuse like heavy drinking with diabetes. (However, as previously mentioned, scientific evidence in this respect is inconclusive.) Drawing from her own experience with diabetes, Isabelle said,

I used to drink a lot ... and I found out through that with my sponsor for AA (Alcoholics Anonymous) that a lot of my diabetes ... because I really damaged it [metabolic system]. ... When I found out that I was borderline again during the pregnancy ... my doctor told me [about] Type 2 diabetes. ... You have to walk every day, exercise every day, watch what you eat and eat in moderation.

Métis Participants shared their views of diabetes, its complications, the anxiety and frustration they felt after a diagnosis. But they also expressed interest in managing the consequences of the illness. Thomas, a male Métis in his forties, shared his feelings:

... I'm mad because I've seen ... my relatives, like my uncle, my aunt, suffering, you know, and I cannot accept it. This is why I have to see someone ... a psychologist to discuss about my fears, because I'm afraid for myself, too, because I'm getting older. It could happen to anybody.

As seen above, some Métis participants described diabetes in terms of its causal factors, while others clearly demonstrated their interest, inclination and motivation to either prevent or control diabetes. In other words, both the diabetic and non-diabetic participants, instead of simply describing diabetes and its related complications or risk factors at individual levels, were also interested in finding out ways either to prevent diabetes or to control its long-term complications and effects.

Theme Three: Understanding T2DM Occurrence in an Urban Context

When asked about the factors contributing to diabetes, participants highlighted a lack of recognition as Métis in Canadian society; limited or no recognition for Métis cultural and legal entitlements; low socio-economic status and the related limited capacity to access healthy food and physical activity options; and the limited or lack of preventive health services. Like those of the First Nations people, Métis perceptions surrounding diabetes were clearly based on a broader discourse than a biomedical recognition of proximal causal agents associated with T2DM (Ghosh, 2011c; Ghosh, 2010; Ghosh and Bourgeault, manuscript in preparation). It is clear from their descriptions how colonial legacies, along with past and present government decisions over generations, have shaped the present biomedical risk factors of diabetes. The purpose of this question was to gain an understanding of each Métis participant's knowledge of diabetes and the strategies to prevent it; furthermore, the question sought to lead the discussion towards their recommendations for diabetes prevention. As before, sub-themes that emerged after analysis of the participants' narratives are denoted with a selected quote.

"... we went, like, from everything being equal to everything being hierarchical"

Métis participants talked about the impact that historical legacies have had in the past and continue to have on the health and well-being of contemporary Métis. Louise, a Métis woman in her twenties, elaborated on these issues:

"... the way Aboriginal People were colonized. ... [W]e are still being colonized, we [are] still living in colonialism. ... We didn't have diabetes [before the Europeans came], we didn't have all these problems then, we didn't have violence. ... We didn't have hierarchical structures where we kept certain people below others. ... We had equality. ... We had [a] very advanced system of governance. ... We were living in balance.

Louise connected the systemic inequities in population groups to the subsequent emergence of inequitable health outcomes. She said,

Given ... this westernized capitalist system we are living in, it kind of keeps us in the lower bottom of this hierarchy. It is just imposed on us. ... It is just the consequence of capitalism, democracy; ... we are living in [a] very materialistic world. ... Therefore, of course, we are the ones that [are] going to have all these sickness, sufferings from violence and health issues, because we are the poor people.

Participants further explained how past and present government decisions have subsequently impacted their health. It was evident from the Métis narratives that many of the on-going government decisions restrict their ability to lead healthier lives close to nature, as in the past. In many cases, forced urbanization resulting from government-imposed territories has changed their lifestyle, often making them dependent on social assistance.

Métis participants also voiced their pain and grief about government policies that resulted in the Métis being treated different from other Aboriginal groups in Canada. Thomas, a Métis man in his sixties, said, “They [government] should have [given us] equality like the other nationality because... they hardly helped us [even though] we’ve been here before many other people. ... The Métis people always been neglected... like we’re nothing. You know? Excuse me, we’re not nothing...”

These excerpts reflect how the Métis participants connected the government-imposed decisions that regulated their lives to their changing health concerns. Their narratives also detailed the adjustments that the Métis had to make to live their lives under these changed circumstances. A major inequity surfaced through the discussions: Métis are unable to access the health benefits available to status Indians, although the Métis people are one of the constitutionally-recognized Aboriginal population groups in Canada. Their narratives indicated that the government-imposed processes of initial colonization, urbanization, and continued colonization impacted the Métis differently than they affected other Aboriginal groups. However, participants conveyed their hopes and expectations for the elimination of this inequity in service provision.

“No, no, it’s not [a choice]. They’re stuck”

For some Métis participants, diet and physical activity, the two most commonly identified biological risk factors of diabetes were perceived as inaccessible choices primarily due to limited economic and social realities. For others, the choice between ‘bad’ or ‘unhealthy’ food as opposed to ‘good’ or ‘healthy’ food was part of the dietary options introduced by white people and developed over generations. Jane, a young Métis female in her twenties, shared her personal experience:

... in a shelter you don’t have choice. You have to eat the food they give you and it’s almost all high glycemic index. ... Once I was at a shelter for women, and they ha[d] no salad, they had no vegetables, they had only pasta with bad muffins and bad cookies and bad cake, full of sugar. And I made a comment and they said ‘Well, the girls, the women don’t like the good food’. ... People are not used to it and they don’t like it. They like the chips and the coke, they like the bad food ... but habits [are] hard to break.

Métis participants, like First Nations participants, stated that minimal formal education and the loss of traditional knowledge and education due to colonial decisions and the residential schooling system have both had a lasting impact on Métis overall health and well-being. Here also, participants did not always speak in terms of diabetes or present any linear connection to diabetes causation. Rather, their excerpts reflected how they viewed diabetes causation caught at the intersections of government policies, the residential schooling system, a loss of native language, experiences of abuse, issues of self-esteem, and disconnects from parents, family, community and nature. As Jane explained below,

The whole system is upside down ... you know the residential school thing? I learned that a lot of children died. And they didn’t die of anything else but that their spirit was broken. ... They were pulled away from their mother[s] and father[s], they had no love. ... they had violence, they had discipline that was cruel ... and they were not allowed to speak their language and they were lost. ... Right now Aboriginal People are in the same [situation]. They have no more wild fish, no more wild game, in the urban [setting], okay?... It’s like they feel lost ... they feel like they don’t belong ... that’s why there are so [many] homeless. ... They feel inadequate, they don’t know how to adjust to urban life. ... They don’t like jobs ... ’cause they are nature people. ... I can identify with that ... and I totally understand when I see the homeless drunks that are Aboriginal and they drink their problems away. ...

Métis participants also expressed how varied and demanding life contexts in urban areas often limited their capacity to opt for healthy food or physical activities. Their situations differed from being overly occupied with work and childcare to not having enough income to meet basic human needs. Alexis gave an example from his job in the transportation industry:

[Y]ou're always meeting customers because we're in business for ourselves. You're constantly in restaurant[s], eat and run ... very little time for yourself to burn that garbage food that you're eating. It's not healthy food, it's garbage, so you don't have time. ... When I see my [diabetic] father, [he] gotta eat at certain times, [he] ha[s] to eat healthy food, [he]got time schedules [so] that [he] gotta eat properly.

The thematic analysis of the participants' narratives revealed that reduced physical activity has, in many cases, had an impact on diabetes incidence. Participants pointed to the changed subsistence patterns in their present geographic location due to the nature of their work, their busy schedules, and their easy access to sedentary amusements. Alexis, who has family members dealing with diabetes, shared these thoughts:

I see in my immediate family, my sister, my father are diabetic. ... I would say they're both hard-working people but besides being hard working, they're couch potato[es] and [eat] greasy food.

Métis accounts demonstrated how urbanization, industrialization and migration to cities had changed Métis activity patterns over the years. Henry, a fifty-year-old Métis diabetic man, commented on how urbanization had affected traditional habits of physical activity:

I know it's winter time, but nobody does anything hardly in the wintertime anymore. When I was a kid we used to play outside. ... We were not allowed to play in our house ... but you get away from all of that when you urbanize yourself. ... It's a lifestyle change. ... You move to the city, you live the city.

Participants also shared how high cost and lack of accessibility to traditional and nutritious food influence dietary options. They expressed their feelings of helplessness because of their inability to choose good food for their children or families. Moreover, Métis participants like Isabelle

also talked about recent changes in the quality of food, and the effect those changes can have on dietary patterns and population health outcomes:

[A]s a Métis in the Aboriginal community, my perspective is that a lot of the traditional, like, a lot of the food we eat today [is] not things that the ancestors were used to. ... Like my mom... grew up on traditional food. And now for us, we grew up on a lot of well, natural, food. But then as I got on my own I just went [to wherever] there's a [fast food chain], any fast food. ... I stepped back from what our ancestors were eating and I don't think our bodies were made for it.

The Métis generally perceived diet and physical activities within the realms of urbanization and the demands of urban life. Further to this, Métis community members' comments did not reflect that their dietary practices or physical activity patterns were carefully selected.

"I couldn't afford to be sick."

Narratives from Métis participants during this study often presented the high cost of urban living as the reason for their restricted ability to select nutritious diets and access physical activities. As did the First Nations participants, they connected poverty with food insecurity. Henry said,

It costs too much. ... I only get \$1,200 a month; my payouts are \$900 a month. That's not my grocery, that's my bills. I pay my own phone, my cable, my rent ... and so \$300 doesn't go far for [a] month of groceries. Even if you go to the food bank, they don't have healthy [options]. ... I have to live on canned goods 'cause it's cheap. ... In urban areas, most Natives I see are like me, under the poverty line. ... We are on a limited budget. ... I couldn't afford to be sick.

Participants' descriptions demonstrated that living on social assistance or the Ontario Disability Support Program (ODSP) did not reduce their struggle with poverty in any significant way. Although people on ODSP are entitled to subsidies on many purchases, the amount they get is not enough to cover the high cost of living in an urban area. A recent report from Ottawa Public Health (2012) also revealed that low-income families in the city

struggle to pay bills and to buy sufficient nutritious food. As Magnus, a diabetic Métis

participant over fifty, explained,

If they have \$200 a month after their social cheque, their welfare cheque, or even the people [who] have ODSP, you know, Ontario Disability Program, and stuff like that, they are subsidized for diabetes^{xii} ... but the amount is about \$30 a month subsidy. ... How much can you get out of that?

Participants who have lived in urban areas for several generations did not have the experience of transitioning from living close to nature to living in the city, but did experience other aspects of urban life such as substance abuse and addiction while living in poverty. Their excerpts showed that living a life of poverty, with its non-nutritious food and physical inactivity eventually leads to adverse health outcomes. Caroline, a non-diabetic Métis woman in her forties, shared her experiences with poverty as a child:

... [A]fter a while my dad left and it was just my mom, and at that point all the money that she got from assistance went to a wee bit of food and a whole lot of alcohol and I guess that's how she got herself through whatever she was dealing with. ... If you only see your parents abusing substances and they didn't go to school, so why should you [do any different], right? You'll get assistance and you'll be able to just carry on like your parents did.

In addition, Métis participants shared their frustrations about inequitable access to federally-funded health benefits to which other Aboriginal groups are entitled. It is clear from their descriptions that access to these health benefits could help considerably to prevent long-term complications of diabetes and prevent the disease. Participants also wanted extended social services to help them meet their basic needs. Henry commented,

What's good about being Métis? Really, what's good about it? What are the advantages for me? Health care? I don't get any. I have to care for myself. I get a ride. I call up and I get driven to doctors' appointments, I can't get driven to anything else but doctors' appointments, medical things. I say that should be extended to shopping, 'cause it's hard in the wintertime for me to walk around on the ice.

“... once you’ve got more affluent you can say, okay, well, we won’t just bake a cake, we’ll go buy [one]”

Responses from participants diverged over the issue of convenient access to food in urban centres. As previously discussed, some saw economic limitation as one of the factors affecting dependence on pre-made food, while others saw it affecting choice between unhealthy but tasty food and nutritious food. Métis responses clearly presented the influence of urbanization on their people’s lifestyle changes, particularly those of the younger members of their communities. Their narratives also described how social and family support was missing in the city. Hence, the complete reorientation of Métis people’s lives has often led them to opt for unhealthy convenience foods.

Henry, for instance, discussed his experiences with teenagers:

I see kids here that are 14, 17, that group, with hundreds of dollars on them. ... For what? What do you need this money for? ... Me, [if] I walked around with a nickel in my pocket, I thought I was rich. [If] I wanted to eat, I went home. I went to one of my aunts ... we’d go to play. We’d go somewhere else, we’d go to another aunt... [The] first time I drank a bottle of pop I must have been 10 or 11, and I had to share it. ... We were allowed a little candy. But, like, nowadays, kids are given anything they want.

Participants often associated financial affluence with overindulgence on non-nutritious but tasty foods. They stated the role marketing strategies play in making fast food more attractive to people and how the prevalence of these strategies can be related to the increasing incidence of diabetes.

“... there’s not enough education out there”

Métis participants shared their views on the lack of knowledge or education about the increased incidence of diabetes in their communities, revealing that this lack of education and awareness among the community members has had a considerable role in that increased diabetes incidence. Eliza, a pre-diabetic Métis woman in her fifties, said,

There’s not enough education out there to let people know what ... what diabetes can do to you, because I know it can affect you a lot. Because I’ve learned the

things, like, by reading that you can lose ... your legs and your feet... your vision. ... A lot of people, even the young people today, don't even think of it. It's not brought up in the homes by the parents. The parents should be educated on it.

The importance of diabetes education and the need for community members to be open to this information was also captured in their comments. Anne discussed people's lack of readiness to become educated, when she said, "people don't want to be educated; they block their mind[s]. They have to be receptive. It starts from home, from mother...good habits, to become active and educat[ed] about food, about consequences of the disease." Participants also indicated that people's reluctance to become educated and to act on diabetes information could be attributed to a general lack of hope and trust on the systemic efforts. Thomas explained,

They neglected to take care of their bodies. It's because ... the government doesn't help the society enough, ... the Métis nation. ... [If] the government hired someone, [a] teacher, to teach them, there wouldn't be so [much] diabetes. ... Some have never been taught because they lost hope. ... They wait to the last minute when they get so sick the ambulance come[s] and get[s] them.

"Another thing about us [Métis] we don't have the rights of the... Status Indians."

Discussions with Métis participants illuminated several challenges and barriers they face due to their inability to access the health benefits for status Indians. Although Métis people are one of the constitutionally-recognized Aboriginal population groups in Canada, they are not entitled to the same services available for status Aboriginal Peoples. Caroline described the benefit of having a status card for her adopted son. She is happy because at least her son can access services that have always been inaccessible for her:

I know that with my son, I know that with his status card, I just bring it to the pharmacy. They're going to take a photocopy or they'll just put his number on file and all of his medication, forever, [are] free. ... I think it's because he had status before I adopted him, therefore you can never get your status taken away.

Métis participants expressed their frustrations at not having equitable access to federally-funded health benefits, but also conveyed their hope and expectations for the reduction of these inequities in service provision.

“... this is not my home. This is the white man’s home.”

The Métis participants stated that they were the first of the Aboriginal Peoples to be urbanized. Many of the participants I interviewed for this study were born and raised in this city; others came from other parts of Ontario or Canada. They shared, however, a feeling of isolation or alienation from mainstream society, which has resulted in subsequent challenges or barriers for them. Métis participants who were urban residents for several generations also shared how the changing urban environment made them feel even more marginalized and alienated in the city. Their narratives clearly indicated the residential segregation of urban Métis in some areas of this city where convenience stores or fast food chains are prominent. Helene, a Métis woman in her fifties, said,

... Depending on their living area ... they create [convenience stores] if it’s low [income] centres, here in Ottawa. When you’re in the country, you have room... to plant your garden. You know here there’s no place, unless you have a community garden.

Magnus shared his understanding about the livelihoods in the areas of the city heavily populated by Aboriginal Peoples. His comments revealed that the socio-economic level of these neighbourhoods is far below the poverty line, resulting in the Aboriginal inhabitants being left behind other city residents in their ability to live healthy lives. He said, “In a sense ... society as a whole moved on, and [area in the city] was left behind. ... So it was kind of bad. Was it really their fault? ... No.”

One reason described by the participants for their lack of attachment to urban areas is the limited or unavailable culturally specific health services for Métis. This sense of

alienation or marginalization may, to a certain extent, prevent them from accessing and participating in diabetes prevention and management activities. Jane explained that “a lot of them don’t even know about the Aboriginal health centre and where they can get back in touch with the culture. And it’s like they feel lost.”

“When a person was abused in childhood, when they are adults they abuse themselves.”

Métis participants shared how their experiences growing up in an intergenerational cycle of abuse and poverty had influenced their lives, decision-making, self-esteem and identities, and finally led to self-destructive behaviours. Caroline’s narrative of her mother’s life demonstrated her perception of the effects of poverty on her family:

I think poverty played a huge role because my grandmother had so many children ... and only my grandfather was working so ... they grew up really poor and then I guess just for my mom to get out of the house, she ended up getting all caught up in this thing [addiction and substance abuse] and my grandfather liked my dad because my dad drank and they used to drink together. ... And so my mom married him and then my mom started drinking, and it just snowballed from there. ... So I grew up in a project, a low rental [housing] project.

Although the precise effect of substance abuse on diabetes incidence has not been clearly established in the biomedical sciences, Métis narratives tended to make a connection between the two. Jane described what self-destructive behaviours meant for her:

... [S]o what’s self abuse? ... You know alcohol, that’s self abuse; smoking, that’s self abuse; you know, just not treating your body with honour and sacredness, and honouring what it needs; and you know, eating food you know makes you sick, and keep[ing] on doing it. ... It’s all bad, and it all aggravates the health, you know?

Their narratives also indicated that being at the intersections of systemic discrimination, socio-economic marginalization, and substance abuse further limited participants’ capacity to take care of their food and physical activity requirements.

“ ... 'cause I was tired of reality”

Participants believed that their experiences of hardship and mental struggle during their childhoods subsequently affected their health outcomes. Métis participants' narratives captured the stressors such as isolation, depression and hopelessness they experienced from unemployment, poverty, abuse, family separation at a young age. In the same line of thought, a recent community-based study (Lavallée and Howard, 2011) with urban Aboriginal Peoples revealed that stressors resulted by experiences of hardship and struggle can act as barriers to healthy eating and physical activities. In turn, struggles for everyday livings ultimately led the participants to rely on available options that subsequently affected their health. Agathe said,

I know I was on drugs (laughs) 'cause I was tired of reality. ...The only thing I liked was raising my children. ... [I] don't understand how I get diabetes at 42 years old. ... I know that part of it has been my suffering and my living here and suffering ... and the stress.

Lack of employment was identified as a contributor to low self-esteem and feelings of hopelessness among urban Métis youth and older adults. Some Métis are employed, but in most cases they work in the bottom ranks of the service sector and struggle to lead their lives. Joseph recognized that getting a job in an urban area is challenging:

... you need your education. Before, you didn't. ... Let's say you just had your grade 9 or 10, you could still go into town and get a blue collar job. ... So now you need to go out and get the skills either at a technical high school, or a community college or private college to get the skills. ... I've met Métis here who have dropped out of high school but didn't go back in, let's say their 20s to get the skills. Then they can't get jobs and then they're in that dungeon of poverty.

Participants' narratives also captured how Métis people in this city were often in need of the systemic health benefits offered to other Aboriginal Peoples. They related how the inequities in services for Métis people were stressful for them. Henry described his personal experiences managing and preventing the long-term complications of diabetes in this way:

[T]here's no community there for me. ... There's nothing that's helping with the diabetics. ... You help yourself, you're hoping, you pray sometimes there's help for you, but there's nothing. No matter who you call, no. Like, I've called my social worker for ODSP [but] there's too many cuts in the government now for assistance for people like me. I'd love to have the home care come in and clean my house once a week and have somebody come in and do my foot care, 'cause I'm big, I'm 400 something pounds.

Drastic lifestyle changes, together with the difficulties of managing a job and raising children without social or family support can make their lives very stressful. François explained,

... [S]tress could make people more vulnerable to diabetes, I think, if they might have a genetic disposition or anything. The effects of stress, the anxiety and things like that might ... surface in a period after the cause and people might not realize that. ... [For] people with limited resources, the effect might come at really inconvenient times or be stretched out longer. And I think some people also don't know how to deal with it.

Theme Four: Dealing with Diabetes

Métis participants were asked how they dealt with diabetes as patient, caregiver or family member. For some, life became stressful, restricted and regimented after their diagnosis; for others, the idea of the lifelong management required was easier to accept. Participants shared their pain and grief, as well as their coping strategies. Magnus told how he managed his diabetes:

I have snacks in my car, yeah, plan ahead for it. ... And I watch my food. ... [You've got to] follow the normal diabetic classes and take your blood samples and stuff like that. ... I do myself a regimen of blood each second or third month. It's very, very hard to be committed to [do] a regimen of exercise.

Participants also discussed their thoughts about the long-term complications of diabetes and death. Some found it hard to change their behaviour as diabetes interfered with long-established ways of living their daily lives. Their narratives captured the frustrations surrounding diabetes from the perspectives of family members as well. Isabelle, a diabetic Métis woman in her thirties, said,

My husband found it frustrating at first because I was either always tired [or] I couldn't function properly and he had a hard time with it. He actually said to me

one day, 'I really wish you weren't so tired anymore or you weren't so sick anymore,' because we didn't know how to deal with it.

Some Métis participants shared their accounts of dealing with diabetes through its management. Some of them were very committed to regular care in order to prevent the long-term consequences of the disease. The pace of change in diet was slow for some, while others were able to take quick action. Their accounts also reflected how taking care of diabetes alone is stressful; they needed additional support with their meal planning, groceries, medication and foot care, and with other activities. Some participants explained that changing habits meant taking everything in moderation, a lifestyle change requiring self-control. Diabetics with substance abuse and addiction issues can find it difficult to manage diabetes as their addictions can blur their judgement and self-control. Joseph commented on his current diet:

You have to change a lot of things, you know. Drinking alcohol has an effect on it, everything you eat has an effect on it. Especially if you've had a lifetime of eating certain things and then [you're] going to change it. ... With food I'll watch what I do. ... I do indulge sometimes but only in moderation. Like this Saturday I was at a cottage and it was my father's birthday so I had cake. ...

The high costs associated with diabetes management were identified as an issue to living well. Métis participants found that following a diabetic diet and taking part in their choice of physical activity was quite expensive for them. They again connected food insecurity with poverty. For people like Magnus, who has limited financial resources and is without access to federal health benefits for diabetes, managing his illness was difficult:

[T]hey put people on special diets, and when you buy food, diabetic food ... that helps you put diabetes in check, you go to any store or supermarket or anything, that food usually is in a higher scale of cost, ... It would be like, you know, do I buy the filet mignon for my diabetes or do I buy the hamburger steak?

Magnus also raised the need for improved access to the costly supplies needed to manage or prevent diabetes complications:

They could provide the lancets, not the lancets, but the strips. They are very, very expensive, \$180 for a three-month supply or something. ... More people would be using them and monitoring, yes, to monitor their blood. ... But people who are on Metformin, let's say, should be testing their blood a bit more regular. But when the strips are [needed] ... they cost a fortune. Again cost and poverty

Like First Nations participants, Métis participants expressed their sense of helplessness arising from inability to acquire the additional support needed to deal with their diabetes. They described the need for systemic initiatives to address their regular health service assistance. Henry's sense of helplessness and isolation come through strongly in his account below:

I have nobody to help me, I have no support. ... I go to my regular doctor, but like for a while it was every six months, but now the Ontario government has proclaimed that diabetic people only have to go every year to get checked for it. It's not a healthy thing. There's another government thing. Diabetic people, to me should be checked every month. ... I had a family doctor when I first got really sick, and then he got arrested ... So I fell through the cracks of the health system. Then they gave me this doctor. ... He's a pill pusher. ... And so my doctor is useless. ... I went to the [name of a Hospital] last weekend. ...I never been treated better by a doctor in my life than there. ...They gave me a bed and 20 minutes later they had me diagnosed [with diabetes]. I think, being alone is the hardest when you're diabetic, when you are ill. Because I have nobody, ... I have people to talk to, but I have nobody to share.

Participants told of moving, after diagnosis, from denial to the gradual acceptance of their illness. Their accounts clearly demonstrated that in many cases their limited financial ability intersected with the cost of diets and supplies needed to prevent or manage the long-term complications of diabetes, a situation that further intersected with their inequitable access to federally-funded health benefits because of their Métis status. These circumstances ultimately place them at risk of developing the long-term complications of diabetes.

Theme Five: Preventing T2DM in Urban Context

To prevent diabetes in Métis communities, it is important to use a holistic approach. Such an approach could influence directly the two most frequent and biomedically identified modifiable risk factors of diet and physical activity. Participants stressed how prevention strategies for Métis

people required enhancing not only their diets and physical activity levels but also their spiritual link with nature. François, a Métis man in his twenties, said:

[T]he way prevention is articulated is mechanical ... it's too isolated as a concept. Whereas I think that people, especially Métis people, have ... a spiritual sense of the[ir] relationship to nature and this is not really a New Age concept. ... It [nature] has a spiritual meaning in people's lives and those types of meanings when they're integrated with physical health can really resonate with Métis people as a positive message as opposed to whereas prevention just says, 'Don't do this' but it doesn't tell you what to do. Prevention ... to me sounds negative as in you're trying to avoid something. ... Prevention sounds very medical and it is isolated [from] the emotional aspect of health.

Several participants shared their perceptions of how positive preventive strategies could influence the broader determinants of Métis health and might reduce disparities in diabetes incidence across the Aboriginal population groups. The interviews held during this research revealed an urgent need for Métis-specific health services and policy development. In some cases, participants believed the illness should be managed by encouraging people to adopt options that balance cultural, spiritual and traditional aspects of health. Other participants felt that diabetes could not be reversed once diagnosed, but must be managed.

Métis participants perceived existing prevention strategies as being mechanical, medical, isolated and negatively oriented. They called for prevention strategies grounded in physical, mental, and emotional aspects of health. In this respect, Bartlett and colleagues (2010) Life Promotion Framework seems very pertinent. This framework moves further from traditional aspects of health; and includes finding 'balance' among 16 important areas that help to 'determine' how life unfolds'. Participants recommended that prevention strategies must aim to restore the physical, mental, emotional and spiritual balance in life if they are to improve overall health. They also recommended that prevention strategies be motivational to enhance self-esteem and enable people to make proactive decisions to prevent or manage diabetes.

The following sub-thematic categories further explain Métis participants' understandings, expectations and recommendations about diabetes prevention.

“... they could educate the children in school, and then the children can explain it to their parents.”

Métis participants discussed the importance of diabetes education and awareness among Métis community people. They believed that parents and teachers together have major roles to play in raising awareness among children about diabetes, its risk factors, and its prevention measures.

Eliza felt strongly that diabetes education was essential, both for parents and for children:

[E]ven the young people today don't even think of it. It's not brought up in the homes. ... The parents should be educated on it. ... They could educate the children in school, and then the children can explain it to their parents, or the parents could go to a meeting at the school, and have someone teach them, give a teaching on diabetes. ... So this way the children and the parents will know what all the facts are.

Participants thought that awareness and education could be used together to prevent diabetes. Their narratives demonstrated the need for improved efforts to increase and publicize the services available for the Métis. Caroline listed some of the possible ways to do this:

... more access to athletic places so that not only people who can afford big huge gym memberships can go. Maybe people like myself who have no income now and who have a child can go to, you know, these sporting events and stuff ... and make them more aware because I had no idea a Native friendship centre even existed ... and I had no idea there was anything for Aboriginal people [in this city]. ... [T]hat's the biggest thing, to know what's available.

Like Magnus, other participants acknowledged the necessity of passing on information to community members but questioned their readiness to receive this information. Magnus asked, “How are you going to pass the information to people who don't look for it? Because they are not looking to identify as a Métis, except for cultural events here or there. You know, put a cowboy hat on and sash, and go to Métis functions.” Pragmatic diabetes education, such as healthy

dietary and physical activity options while considering barriers that may have to be faced, was also discussed. François elaborated on this idea:

[T]hey don't know what steps to take and they might not know healthier options to live in. Or the healthier options might be presented to them as exercising like five times a day ... which is, like, this impossible goal. So they don't know which little steps to take to prevent it. ... It seems that the healthy messaging isn't presented to people in, sort of, the practical choice, making [small] steps. People want practical options and options they can make whether it's something they can buy at the grocery store or making choices on how to spend their evening.

Strategies for spreading information about diabetes identified by the participants included the creation of bulletin boards with information for all Aboriginal groups, community gardening, and walking groups. All community health centres would be involved in providing or promoting such strategies. Métis participants thought that integrating traditional and holistic approaches to existing diabetes education would help eliminate any sense of distance and mistrust between the providers and Métis clients. They believed culturally appropriate diabetes education strategies would be most likely to succeed. Helene, for instance, said,

... Because already they don't trust, there's a big lack of trust with the mainstream services, so they're not going to go. You know in the mainstream it's always the physical [aspects that are discussed]. And so ... it's never balanced. ... And it's like a bandage [band aid] effect.

Métis participants emphasized how diabetes education and awareness must start at an early age and must incorporate parental and school involvement. Their suggestions included the development of pragmatic strategies of diabetes prevention which took into account the structural barriers Métis people face in urban areas. Finally, they hoped for increased culturally appropriate education and awareness.

“ ... as long as you take [a] holistic approach and you are not exclusionary.”

Métis participants spoke about overcoming the limitations of the existing pan-Aboriginal approach in health service provision. Their perceptions recommended that health services be

respectful of the cultural diversity that exists within the Aboriginal groups and be inclusive and flexible enough to respond to the diverse needs determined by the varied backgrounds of clients.

Louise said,

... you can just take the word 'Aboriginal' and stick it onto all of us. ... There are lot of Aboriginal cultural groups. I think in Canada there are 52 different Aboriginal cultural groups, that [are] First Nations and then there are Métis, Inuit... I think it is bad when it say that you are Aboriginal, so you all speak [the] same, eat [the] same. ... As long as you take [a] holistic approach and you are not exclusionary, be open for all Aboriginal people ... don't be closed-minded, open your mind.

Participants' narratives demonstrated their need for a centre specifically for Métis people, or a program that offers Métis-specific preventive services for health at the existing mainstream health centre. Louise, a young Métis woman, said,

I think [the] existing system can't work; it is based on a completely different worldview, [a] completely different culture. We feel alienated going into those hospitals. Lot of people working there and they ha[ve] no idea of Aboriginal culture ... They don't pay attention to the other factors, they don't think of spirit, they don't think of mind and self, we are going to fix the body. ... If you look at the doctors, that's what they do, they specialize in one thing and that's where they focus on and that's all they treat. ... In [the Aboriginal health centre] they are really strong at mind, body and spirit ... and they have the medicine wheel approach^{xiii}.

Métis participants hoped for culturally specific Métis services at the Aboriginal health centre and wanted to be treated equally with other Aboriginal Peoples. In this regard, they indicated how the culturally specific services at the Aboriginal health centre need to include traditional and cultural Métis elements. Helene spoke about the difficulties of using First Nations programs for the Métis:

Oh, it [culturally specific services] has to be Métis-specific, because when we go to, let's say, [an] Aboriginal health centre, as much as good services, when we walk in there as Métis, we always don't feel Aboriginal enough, you know? And we're treated differently. Because we look so much like [the] mainstream [Canadian]. ... As a First Nations, you go to [an] Aboriginal health centre, you feel like you're at home. As a Métis, you go there, you feel like ... [you're] second class. But it's better than the mainstream. (laughs) It's the less[er] of all[two] evil[s].

Although participants expressed the need for more Métis-specific services, overall they found health services provided at the Aboriginal health centre tended to be more culturally appropriate for them than the mainstream health centre services. It is evident from their excerpts that Métis need improved Métis-specific services in this city. They also felt that both the Aboriginal and mainstream health centres needed to understand and respond to the diverse Métis health needs. It is important to understand diversity, acknowledge clients' needs, and serve all Aboriginal Peoples equitably.

“We should break down the bureaucracy.”

A clear need for equitable access to services for the Aboriginal Peoples of diverse socio-economic, language, cultural and legal orientations has been reflected in Métis participants' narratives. Participants shared their feelings of marginalization, discrimination and alienation with the existing pan-Aboriginal health strategies and service provision. They spoke of their struggle to achieve Métis health rights in services especially designed for Aboriginal Peoples. Their perceptions also revealed how accessing government-provided services especially designed for Aboriginal Peoples could act as a protective measure against diabetes occurrence for their people. Eliza said,

... [T]hey probably do something for the First Nations Aboriginal People at [the] Aboriginal health centre, but for the Métis, I don't know, I don't think they do. ... But they [Métis] should have just as much right as the next culture [First Nations and Inuit], [and so do we] because we're descendent of that [Métis] culture.

Participants revealed their frustrations with and expectations for policy makers. They stated that equitable services need to be city-wide, as Métis and other Aboriginal Peoples are dispersed all over the city of Ottawa. Hence, centralizing the Aboriginal health or social services in the downtown core does not make it accessible for all Aboriginal Peoples. Henry said,

They [policy makers] have to make it [health and social services] ... accessible for everybody. ... It doesn't do anything for anyone who lives off of [downtown street]. It's a heck of a travel [for me]. You need more, you need some central, or you need satellite areas. ... Even if you just have one ... or two people in the satellite office.

Improving systemic efforts to reduce unemployment issues, creating more jobs and providing other support could help improve Métis health. In addition, Métis participants recognized the need for improved communication between policy makers and health service providers to reduce the gap in services and ultimately to improve health outcomes. Also needed are flexible and responsive policies with the potential to be meaningfully applied to address specific health issues. Métis participants recommended that policies be developed through community engagement and insights from the service providers. François believed there was a

... disconnect between policy makers and health care providers. ... Sometimes the policy makers have policy that's so general, such big plans, that they're hard to implement. So I think this make[s] very general health messages that make it very hard for people to make choices. ... I think that policy makers could go back instead of coming up with big plans. [They need] more concrete, modest plans. That's a good place to start and make paced changes. That way, that's probably more effective.

“... everyone needs to work collaboratively”

Recommendations for better integration among local health and social services in order to improve preventative strategies have been made by the participants. They also called for an integrated preventative approach to address the various social determinants of health. The present hierarchical nature of policy development is seen as detrimental to health outcomes, but undertaking collaborative approaches at all levels of government and with non-governmental organizations would be the best option to respond to diabetes prevention. Louise shared her opinion on preventative strategies and bureaucracy:

So, for example, if alcoholism is a risk factor, you [need] programs to tackle those risk factors and you can do that through, you know, culturally-safe initiatives and programming offered through different Aboriginal organizations. ... We should break down the bureaucracy. ... It is so hard living in an hierarchical world, government, bureaucracy, policy, people, community level, organizations. Actually that is not the way it should work. ... Right now we are working in a system of silo[s]. ... Everyone needs to work collaboratively.

Discontinuance of services for Aboriginal Peoples because of government cutbacks has been heavily criticized by the participants. They also recommended better advertisements for preventative health services through free media and engagement and interaction with other local communities. Jane thought that better coordination and communication among Aboriginal and mainstream health centres could improve the situation. She declared that “division is disaster and unity is power, all the time.”

Participants’ excerpts indicated the need for expansion of services provided by the Aboriginal health centre and suggested that integration between health and social services could play an important role in making healthy dietary options available to the clients, even through such commonplace measures as food banks and food drives. Caroline commented,

Maybe the food bank can help people make better choice of foods. Maybe when the food bank packs up food, maybe it can be, you know, less of a certain food, more of a variety of things ... I don’t know if they have, like, people who are dieticians or if the food bank people have learned from dieticians.

“Every doctor should be educated on the Métis, Inuit, Aboriginal People because we are different”

Métis participants thought there was a need to educate more health service providers about diversities in Aboriginal Peoples, their colonial relationships, cultural orientations, legal statuses, and spatial complexities, as they vary among Aboriginal groups. They believed that improved understanding about Aboriginal diversities would enable health service providers to offer improved services for their community members. As Helene said,

... there’s major trauma in the Métis community and First Nation[s], you know? ... Being put in residential school, being taken away from your families, and it’s not going to be affecting just one generation, how many other generations? ... Yeah, it’s a trickle effect. And it’s not just a ripple effect, it’s a wave effect. (laughs)... You just can’t take somebody off mainstream and expect [them] to understand the trauma that these people [have.]

Participants' narratives reflected the need for health service providers to understand their clients' social contexts so they could offer meaningful services and advice to them. It is also evident from the participants' discussions that knowing a client's background could help a health provider to predict future health outcomes. Isabelle, for instance, said,

I'm really blessed. I have [an] amazing family doctor. ... He is aware of my culture. ... So I'm not worried about him in that perspective. [But] my OB [obstetrician] on the other hand was really ignorant; he had no idea what [a] Métis person was. ... I can't remember what happened but there was an incident and I said, 'Well, I'm a Métis person,' and he said, 'Well, what's that?' [When] my family doctor, when he saw the results of [my] gestational [diabetes] he was, like, 'Oh, you're borderline.' ... I think he took it more seriously because he knew [about the risk of health complications] and that's when he put me down in November and told me, 'You have to lose weight, you have to exercise.'

Isabelle's experience reflected the level of ignorance among some health service providers about Aboriginal cultural diversity. Because Isabelle's general physician was knowledgeable about her Métis origin, he was able to suggest preventative steps for type 2 diabetes, but her obstetrician's knowledge of her test result could have resulted in a very different awareness of its potential for harm. Agathe brought up the necessity of educating foreign-trained health professionals about Aboriginal culture and diversity. Participants also found that there is a need for health service providers to gather knowledge about Métis understanding of holistic health and positive aspects of health. François thought,

... they [pre-diabetic and diabetic patients] go to health clinics and their doctors' clinics, but I don't think health is discussed much among Métis... especially not the positive aspects of health, what you can do as opposed to what you could avoid.

Participants thought that services could be improved if there were doctors of Métis descent or, at the least, of Aboriginal origin. Henry observed, "There's not much diabetes services here in Ottawa. You have to be in Northern Ontario or Toronto or Hamilton." Participants also expressed the need for more specialized nurses trained to prevent the long-term consequences of diabetes as well as manage the disease for their people. Thomas explained that

... it should be [a] special nurse that takes care of those people [diabetic or pre-diabetic people]. Some are left out ... some, they have no family at all. ... They should have a special person that come[s] to their help. ... They should have someone, a special professional, teach them what to do to prevent it. ... It's because they are lacking ... good nurses.

“Teaching people about it [Métis culture], as much as any other culture”

Education of the general public about Métis and Aboriginal culture was also identified as an acute need to be addressed. Unfortunately, many Métis people hesitate to disclose their Métis ancestry in mainstream society because of past and continued oppression, and the subjugation and marginalization that they face, restricted them from voicing their due rights and needs for equitable health services. Eliza remarked, “[T]hey need it [Métis health centre/health services for Métis] because there's quite a few Métis people that they're afraid to say they're Métis. ... There is a need for ... teaching people about it [Métis culture], as much as any other culture.”

Isabelle, in a similar vein, expressed her anxiety about her son being ostracized for his darker skin colour, but she also hoped for improved understanding and education among the general population about Métis and other Aboriginal Peoples. She envisioned a society that would overcome its stereotypical notions about all Aboriginal Peoples, one that did not associate ethnic origin with any health or social consequence:

... [T]oday, still, the barrier is that people still see us as uneducated, drunken, low life. ... I hope to God that by the time [my son] goes to school that it won't be as challenging for him, because he is getting the darker skin now. ... I mean we shouldn't have to work so hard to show ... society that we're no different. ... We can be doctors or nurses or even the Prime Minister. We shouldn't have to work so hard to be who we are, just because we're Métis and First Nations or Inuit. And it shouldn't be stereotyped that ... because you have type 2, it's because you're Native.

“... integrating physical activity-- not just exercise but fun activities.”

Métis participants thought access to physical activities could decrease the risk of developing diabetes. They favoured the integration of physical activities with various other life activities in a

fun-filled way. Participants like François noted the importance of having cost-free options such as walking, jogging, and gardening instead of vigorous exercise. He said, “[It’s important that we integrat[e] physical activity, not just exercise but fun activities, ... [because it] might positively affect the other aspects of health ... emotional health and even connection to people.”

While talking about the need for physical activities, Joseph provided examples of activities that Métis people used to do in the past, but recommended other physical activities feasible in urban centres:

So you’ve got the traditional physical activities that you can’t do any more like canoeing, chopping wood or climbing trees, running around, hunting in the woods. So you gotta bring in more modern substitutes like swimming and walking and things like that. ... They’re not traditional but they are moderate physical activities.

“They need to be serviced like medical, educational, urban style living...”

When they were asked about the needs of the Métis communities in this city in relation to diabetes prevention, participants discussed access to basic survival needs, Métis community leaders, Métis-specific services, and a social platform for their community members. In addition, they saw a need for increased social supports to help their community members meet their basic needs. Jane commented,

[P]eople that are on Ontario Works are not getting enough money. Even with the special diet, which is 250 [dollars] extra, maximum, it’s not enough money. So Ontario Works money has to go up, ’cause most of them are on Ontario Works or ODSP. So there has to be some kind of fighting for that. You know, it’s a ... primary right, you know, just to get basic food.

Participants expressed the need for specialized health services for Métis. They also described the complexities involved in the process of becoming a self-identified Métis and the subsequent difficulties in calling for Métis-specific health services. They described the lengthy process involved in the Métis citizenship registry⁶ necessary when they move from one city to

⁶ Métis citizenship registry is a systematic method used for identifying Métis rights holders. Métis citizenship represents the individuals who are ancestrally (on the basis of family history) connected to the “historic Métis

another and the subsequent consequences for medication or health services coverage. As Magnus mentioned,

There's no real service for Métis. ...[For official recognition] I have to go through the complete process of getting my grandparents' names, my great-grandparents' names and the whole process and sometimes it costs money and everything and then send that to the [name of the advocacy organization] and [I] maybe may be accepted as a carded citizen of the [name of the organization]. If you are carded in Manitoba, [and then] come to Ontario, you have to go through the whole process again to be carded in Ontario.

The need for a common health platform to band together all Métis people and the existing organizations and services was noted. Sophie, however, pointed out the lack of a close Métis community in Ottawa as a barrier to some of these ideas. She told me, "There's no big Métis community in Ottawa that will gather and have functions together." Métis respondents, like First Nations participants, expressed their need for home care for diabetes patients, particularly older Métis diabetics or pre-diabetics who have mobility restrictions. Help was equally important for mothers with young children. Participants agreed that community members must be motivated to understand diabetes, its risk factors and prevention strategies; they must also be willing to accept diabetes and follow its management regimen. Jane spoke about this barrier:

... it's tough to get them out, you know? You need to push them. ... It's almost like if I'm not motivated to change and you're trying to push me to change, you can't change me. So it's almost how do you go get the motivation within them? That's the question.

Participants would prefer that information for basic needs such as health, education, housing, and food be accessible under one roof. They further recommended expanding the need for

Nation Homeland" which includes the three Prairie Provinces (Alberta, Saskatchewan and Manitoba) and extends into Ontario, British Columbia, the Northwest Territories and the northern United States. Moreover, each Métis registry has its own requirements to register individuals as Métis under their provincial registration system (Métis National Council, n. d.)

this kind of 'one stop shop' facilities for Aboriginal health and social services all over the city, as well as the need for improvement in the quality of the offered services. Jane said,

... there's only one Aboriginal health centre. ... we need more. Satellite branches of [the] Aboriginal health centre... And also they have a community kitchen on Friday in [the] Aboriginal health centre. But I don't find that their food helps diabetes. ... [T]he community kitchen is bad food ... white bread, white bannock ... the fish is farmed fish, and the desserts are so sugary.

On this question, then, Métis participants shared their community needs, starting with better education about Métis culture among the general population and health service providers, and including the extension of Métis-specific health and social services all over the city. They wanted to have Métis leaders voice their health rights to the government. A single collection point from which to access information about diabetes and other health and social needs, and a common platform for their Métis community gatherings were also identified as important needs.

"... the mentality of the Aboriginals [is] inclusive, that's the strength"

When participants were asked to discuss community strengths, they identified traditional ways of knowing, doing and living, and discussed the unique strengths of urban communities, including virtual communities. The following quotations from a number of participants capture their perceptions of community strength. Louise said,

... our knowledge, even traditional ways of eating. ...We have these wild rices, like the cranberries, they are so healthy for you. Like the way they do smoked fish ... it is all local, not shipped from China. ... It is hard to get local natural traditional food here. ... We only get these [traditional harvest feasts] during the month of August/October like in [the friendship centre and [the] Aboriginal health centre ... which is amazing.

Participants saw strength in community gatherings where speakers or community champions shared their motivating experiences of ways to prevent or manage diabetes. In Isabelle's view,

... I think the strength would be to offer support ... even group meetings or have [a] speaker to show that you're not alone out there, that there [are] other Métis or even other Aboriginal people who suffer from it [diabetes] and then you feel, oh okay, and you can talk about it with each other. ... There are things we can do to keep us active and encourage our children to return back to what we grew up on.

Some participants were initially sceptical or unable to locate Métis strength in diabetes prevention, but when probed for their broader perspectives on diabetes prevention, they opened up and shared their thoughts. Earlier in the interview process, Jane had said, "I'm sorry I don't see any strength. ... I just see, like, what needs to be worked on." Later, Jane recognized and acknowledged community strengths of inclusivity and equality, when she said,

... there is a strength with culture and there's a strength with community. ... Well, just the mentality of the Aboriginals [Métis], they are inclusive, that's a strength. ... Another strength about the Aboriginals [Métis] is they work in a circle, it's not a hierarchy like the top to bottom. Everybody's equal.

Participants also saw strength in their perception of community as family. Joseph declared, "If you have a connection through family, that's an important thing. ... [I]t's a really big thing, either through blood lines and families or intermarriage and families." In fact, a large number of Métis working in federal government departments in Ottawa are connected to local communities through their organizational employee networks. Joseph also recognized the importance of virtual communities:

... the virtual community, especially for the young people. I know a lot of my nieces and nephews, their, like, virtual community is just as important as their face-to-face community. ... Their virtual friends from Vancouver or Toronto who they've never met are just as much their friends as someone sitting across the table from them at a coffee shop.

Finally participants stated that the sheer number of Métis people living in this city has great potential to bring positive changes to the Métis community.

Summary and Conclusion

Like First Nations participants described in Chapter 5, Métis participants, drew connections between legacy of colonization, the urban context, and the socio-economic, cultural and legal diversities of their lives in contemporary context to their increased vulnerability to diabetes. Conversations with Métis research participants indicate the need for developing and delivering targeted and Métis-specific health services and policies grounded in Métis culture and connected to Métis values and perspectives. Métis perspectives also reflect the idea that diabetes prevention and management strategies require understanding of the historical, socio-economic, political, and legal contexts of the illness in addition to its biomedical aspect. Moreover, it is equally crucial for the prevention and management strategies to respond to these contextual factors along with the biomedical factors.

My observations also indicate that health services for Aboriginal Peoples do not adequately address Métis people's needs but often focus solely on First Nations needs and priorities. Universal and 'pan-Aboriginal' discourses and practices have generalized First Nations and Métis identities in policy (Maxwell, 2011); health service programming has blurred the distinct geographical, cultural, historical, legal and socio-economic experiences of particular Aboriginal groups and subgroups. These concurrent phenomena raise questions about balancing emerging urban Aboriginal identities and broadly inclusive services for marginalized non-status Indians and Métis Peoples in urban settings. Perceptions captured in participants' narratives also underline the need for flexible and Aboriginal population-specific prevention and service delivery that recognizes and respects the diverse need of pre-diabetic, diabetic and non-diabetic Métis people along with First Nations. The integration of community members' respective perspectives into the existing pan-Aboriginal services is also another option necessary to scale up the services (Ghosh and Gomes, 2008; Ghosh and Gomes, 2011).

The following tabular representation (Table 3) matches themes and subthemes with examples of their corresponding concepts extracted from interview transcripts. As in the previous table (Table 2), headings of sub-thematic categories in Table 3 are denoted by Métis participants' quotations. This table also organizes the themes that speak to the constructs of the social determinants of health and intersectional approach. For instance, the emerging major theme such as "Understanding T2DM occurrence in an Urban Context" and its sub-thematic categories in the following Table 3 correspond to the generic social determinants of health constructs (such as income and social status, social support networks, physical environments, employment/ working conditions, gender and health services) (PHAC, 2011) and helps us understand the background of increased diabetes occurrence among Métis people. However corresponding to the intersectionality beyond the constructs of social determinants of health further explains the complex interrelationships among the determining factors (such as intergenerational trauma, poverty, limited access to healthy diet, lack of social support, contemporary government policies, legal status of Métis people, urban planning and exposure to fast food) as captured in the emerging theme "Understanding T2DM occurrence in an Urban Context" and its sub-thematic categories within the added confluence of present geographic context and historic legacies and how that affect Métis peoples' likelihood of developing diabetes. Thus factors presented in the following table (Table 2) under 'social determinants of health constructs' help us to understand the contextual determinants of Métis diabetes at a much wider level, whereas factors presented under 'intersectionality' reflect the intersecting factors specific to Métis peoples diabetes at the local urban context. In other words, intersecting determinants help to understand the simultaneity of oppression Métis people face being at the multiple axes of marginalization in urban centres particularly due to their legal status and cultural marginalization, and how this complex context determines their susceptibility to develop diabetes. Moreover, intersectional approach that helps understanding the immediate

individual health concerns and intersecting community or broader social dynamics and then does not give primacy to one factor over the other (e.g. poverty reduction over increasing access to culturally appropriate services) rather highlights need for intersectoral collaboration (to enhancing for example, the targeted policy as opposed to pan-Aboriginal approach in health services, income support, culturally appropriate health services, public policies promoting health), may facilitate sustained efforts to intervene on the intersecting social determinants of diabetes.

Table 3: Métis Perceptions

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
1. Place and Movement		Income and Social Status, Employment/Working Conditions, Education and Literacy	Better Access to Health and Social Services, Better Access to Education and Employment, Attractions to Urban Living
2. Explaining Diabetes		Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Biology and Health Services, Culture	Legal Status, Social Status, Historical Legacies, Contemporary Government Policies, Limited Access to Health Services, Limited Access to Diet and Physical Activity, Access to Education/Information, Poverty, Lack of Social Support, Geographic Location-Urban Context
3. Understanding T2DM in an Urban Context	“... we went [from] like everything being equal to everything being hierarchical.”/ “... Residential schools scooped all of us...”	Income and Social Status, Social Support Networks, Social Environments, Physical Environments	Intergenerational Trauma, Loss of Traditional Cooking Style, Changing Lifestyle-Westernized Diet and Physical Activity
	“No, no, it’s not [a choice]. They’re stuck”	Income and Social Status, Employment/Working Conditions	Poverty, Income, Limited Access to Healthy Diet, Limited Access to Traditional Food, Lack of Social Support, Geographic Location-Urban Context

Table 3: Métis Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
3. Understanding T2DM in an Urban Context (contd.)	“I couldn’t afford to be sick.”	Income and Social Status, Education and Literacy, Employment/Working Conditions, Social Environment, Gender, Health Services, Physical Environment	Legal Status, Social Status, Historical Legacies, Contemporary Government Policies, Limited Access to Health Services, Limited Access to Diet and Physical Activities, Access to Education/Information, Poverty, Lack of Social Support, Gender
	“... once you’ve got more affluent you can say, okay, well, we won’t just bake a cake, we’ll go buy...”	Income and Social Status, Physical Environment, Social Environment, Personal Health Practices and Coping Skills	Exposure and Easy Access to Fast Food, Legacy of Colonization, Loss of Traditional Knowledge and Teaching, Geographic Location-Urban Context, Urban Planning, Government Policies
	“Another thing about us [Métis] we don’t have the rights of the... status Indians.”	Income and Social Status, Social Support Networks, Physical Environment, Education and Literacy, Healthy Child Development	Legacy of Colonization, Joblessness, Poverty, Lack of Self-Esteem, Compromised Diet and Physical Activity, Geographic Location-Urban Context
	“... there’s not enough education out there”	Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Gender, Culture	Historical Legacies, Residential Schools, Loss of Traditional Knowledge and Skills, Lack of Education and Survival Skills in Urban Areas, Lack of Culturally Appropriate Health Services, Pan-Aboriginal Approach

Table 3: Métis Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
<p>3. Understanding T2DM in an Urban Context (contd.)</p>	<p>“... this is not my home. This is the white man’s home.”</p>	<p>Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Culture</p>	<p>Historical Legacies, Residential Schools, Geographic Location-Urban Context Loss of Traditional Knowledge and Skills, Lack of Education and Survival Skills in Urban Areas, Lack of Culturally Appropriate Health Services</p>
	<p>“When a person was abused in childhood, when they are adults they abuse themselves.”</p>	<p>Personal Health Practices and Coping Skills, Social Environments, Physical Environments, Income and Social Status, Social Support Networks, Employment and Working Conditions</p>	<p>Continued Colonization, Government Policies, Contemporary Government Policies, Lack of Social Support, Geographic Location-Urban Context</p>
	<p>“... ’cause I was tired of reality”</p>	<p>Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Gender, Culture</p>	<p>Historical Legacies, Loss of Traditional Knowledge and Skills, Lack of Culturally Appropriate Health Services, Continued Colonization, Government Policies, Contemporary Government Policies, Geographic Location-Urban Context, Lack of Education and Survival Skills in Urban Areas</p>

Table 3: Métis Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
4. Dealing with Diabetes		Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Biology and Genetic Endowment, Health Services, Gender, Culture	Poverty, Legal Status, Social Status, Income, Limited Access to Healthy Diet, Limited Access to Traditional Food, Lack of Social Support, Geographic Location-Urban Context, Lack of Culturally Appropriate Health Services, Pan-Aboriginal Approach
5. Preventing T2DM in an Urban Context	“... they could educate the children in school, and then the children can explain it to their parents.”	Income and Social Status, Social Support Networks, Education and Literacy, Employment/Working Conditions, Social Environments, Physical Environments, Personal Health Practices and Coping Skills, Healthy Child Development, Health Services, Gender, Culture	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Income Support, Life Skill Training, Culturally Appropriate Health Services, Culturally Appropriate Health Education, Local Aboriginal Organizations Engagement
	“... as long as you take [a] holistic approach and you are not exclusionary.”	Education and Literacy, Health Services, Personal Health Practices and Coping Skills	Culturally Appropriate Health Services, Culturally Appropriate Health Education, Raised Awareness, Public Policies Promoting Health

Table 3: Métis Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5. Preventing T2DM in an Urban Context (contd.)	“...We should break down the bureaucracy.”	Income and Social Status, Employment/ Working Conditions, Social Environments, Physical Environments, Culture	Public Policies Promoting Health
	“... everyone needs to work collaboratively...”	Education and Literacy, Social Environments, Physical Environments	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Culturally Appropriate Health Services, Culturally Appropriate Health Education, Public Policies Promoting Health Geographic Location-Urban Context
	“Every doctor should be educated on the Métis, Inuit, Aboriginal people [First Nation] because we are different.”	Education and Literacy, Culture, Social Environments, Physical Environments	Cultural Competency Training for Health Professionals, Recruitment and Retention of Aboriginal Health Professionals, Engagement of Local Aboriginal Organizations and Elders, Traditional Teaching, Geographic Location-Urban Context
	“Teaching people about it [Métis culture], as much as any other culture”	Employment/ Working Conditions, Physical Environments, Social Environments	Flexible Work Hours, Education and Awareness about Métis Culture, Respect for Diverse Needs of Employees

Table 3: Métis Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5. Preventing T2DM in an Urban Context (Contd.)	“... integrating physical activity, not just exercise but fun activities.”	Health Services, Personal Health Practices and Coping Skills, Culture	Distinction-Based (Targeted Policy) as opposed to Pan-Aboriginal Health Services and Policy (General Policy), Public Policy Promoting Health, Education Support, Recruitment and Retention of Aboriginal Health Professionals
	“They need to be serviced like medical, educational, urban style living...”	Personal Health Practices and Coping Skills, Culture, Education and Literacy	Involvement in Local Aboriginal Organizations, Involvement in First Nations and Métis Community Gatherings and Occasions, Communication with Elders
	“... the mentality of the Aboriginals ... they are inclusive, that’s the strength...”	Health Services, Social Support Networks, Education and Literacy, Social Environments, Physical Environments, Culture	Communication and Collaboration Among Local Organizations, Communication and Collaboration among Aboriginal and Mainstream Organizations, Public Policy Promoting Health Geographic Location-Urban Context

Chapter 7: Health Service Providers and Policy Makers' Perceptions of Type 2 Diabetes

The purpose of this chapter is to describe the professional participants' (health service providers and policy makers) understandings of diabetes and its prevention and management. Professional participants in this study include six health service providers and seven policy makers. In the majority of cases, participants' narratives are presented using direct quotes. As in the previous results chapters, salient themes and significant narratives are discussed in relation to the study aims and the conceptual framework guiding this research. The thematic categories emerged from the qualitative results of the thirteen interviews with professionals. Similar to the previous result chapters here also the order of themes follows the order of questions in the interview guide I followed during data collection. The order of themes is basically informed by my undertaking of inductive coding (based on interview guide) and deductive coding (emerging sub-themes) of data. These themes speak to the social determinants of health and the intersectionality of the legacy of colonization, geographic location, Aboriginal diversities in legal and social statuses, and cultural background. Successive subcategories of these intersecting themes primarily include access to health services, policy priorities and funding availabilities affecting development and implementation of preventive services, Aboriginal legal status, socio-economic instability, and food insecurity, as identified by the two groups of professionals. These intersecting categories coexist with and compound the effects of social determinants of health, including income and social status, social support networks, education and literacy, employment or working conditions, social environments, physical environments, personal health practices and coping skills, healthy child development, biology and genetic endowment, health services, gender, and culture (PHAC, 2011).

Section 1: Health Service Providers' Perspectives

All of the health service provider participants of this study were directly recruited by me based on their experience in providing health services for diabetes prevention and management. Two of the six health service providers were medical doctors, two were registered nurses and diabetes educators, and one was a registered dietician and one diabetes prevention coordinator. Two of the six health service provider participants were of Métis descent, while another two participants were from First Nations backgrounds, and the rest were non-Aboriginal participants. All but one health service providers were female. Participants came from Aboriginal health centres, community health centres, a university family medicine department, and a provincial government funded health initiative. These organizations play key roles in designing, developing, and providing programs and services to urban Aboriginal residents. In response to the first few introductory questions, health service providers (HSPs) discussed their respective positions and responsibilities in the organizations they represent, as well as their organizations' role in Aboriginal health services. Health service providers of First Nations, Métis and non-Aboriginal origin who worked at the Aboriginal organizations frequently mentioned that their services are open to all three Aboriginal groups. Preventative services that they mentioned include screening for diabetes, nutrition counselling, and diabetes education. They also placed emphasis on diabetes self-management skills to overcome the long-term complications of diabetes. In this respect, while discussing her own professional role, Laura, a female Métis diabetes dietician, says:

One of the biggest self-management skills that people need to know... so [that] they can really control their blood sugars... so [that] they don't have those long-term complications... I meet with them to discuss, like, what small changes can we make to your diet ... it's more, like, how can we change your diet or modify your diet so that you're still eating and enjoying food, but you're controlling certain aspects of your diet... so you don't have those high or low blood sugars.

Participant narratives reflected that preventative health services as practised place emphasis on the Aboriginal or ethnic status as a risk factor rather than understanding other determining factors that intersects with Aboriginal status. Kim, a First Nations diabetes nurse educator, said, "I have decided that every patient coming through [our] door needs to be screened for diabetes because all Aboriginals are at high risk." Moreover, health service providers described their role of providing collaborative services through their respective centres and through outreach for diabetes prevention and management. Kim continued to say:

Anybody who's at risk if they have high blood pressure, hypercholesterolemia, [or] obesity, they're referred right away to us as well as the diabetic educator, myself and the dietician, so, it's working well... We do outreach so we're out there in the community... [including the] drop-in centre, the Mission, the women's shelter, the Friendship Centre... schools for sure... We're trying to target where we think we can outreach the most people.

Health service providers' comments reflected their efforts to make their community people aware of diabetes. Their attempts to make diabetes education an integral component of preventative services indicate its importance. For example, Vanessa, a First Nations diabetes prevention coordinator, said that a "big part of our job we're trying to get out there is the word about diabetes, here is some prevention strategies... here is awareness, it's really important to understand and do this." Health service providers, irrespective of their Aboriginal or non-Aboriginal descent, put an emphasis on the community's role in diabetes education and service provision. In this respect, Rose, a non-Aboriginal diabetes nurse educator, pointed out that "... our program is funded by the Ministry of Health [and Long Term Care], and everybody has access to it... people want to come... because it's culturally sensitive and the presenters are often people from the community, so the message is coming from the community to help the community." While describing their respective roles, health service providers demonstrated their understanding of

various social determinants of population health and their efforts to address those determining factors in their practices. As Laura, a Métis dietician said:

There [are] also programs that I tell people about, so if I know that they have financial difficulties, [I recommend] the good food box program because we have a drop box here... but they pay this really small amount of money, maybe like \$10, and they get this huge crate of fresh fruits and vegetables that are locally [produced]. You just pay, and the week after, it's delivered to [the centre] ... So just letting them know, [be]cause a lot of them don't know about it.

Health service providers' perceptions of diabetes prevention, however, placed the ultimate responsibility on individuals. This is demonstrated when Rose, a non-Aboriginal nurse educator said, "But the onus is really on the person if they want to, because we can't force anybody, but we can tell them about services that are offered. And they're free, so that's the good part."

Experiences in Aboriginal Health Service

When asked to share their experiences of Aboriginal health services, health service providers brought up a range of issues, including inequitable health outcomes, health service providers' lack of knowledge of Aboriginal populations, and access issues to health services. Health service providers also observed a gender difference in participation at the diabetes education sessions: In their experience, more women look for information than men, which subsequently led the providers to find ways to attract men to their diabetes education programs. Financial issues and their associated barriers for diet, physical activities, and access to health services were also identified as major contributing factors to these communities' health and well-being. As Laura described: "financial issues are always a struggle in terms of buying nutritious foods, or buying the diabetes supplies if they are not covered under different health plans."

Health service providers believe that the majority of the programs and services planned, developed and implemented by people do not possess adequate knowledge of Aboriginal health

contexts or the actual needs of the communities. To counter this situation, Peggy, a medical doctor of First Nations origin, suggested:

I think [health service providers and policy makers] have to go back to the roots of that population, meaning going back to the reserves and the settlements of the First Nations and the Métis persons. Why are they now in the city? So, I think you know, they really have to connect with the people themselves... Often decisions are made [by] these policy makers, planners, [and] government employees' offices... I think they really have to do more than just make this decision from an office. They need to go out to a community [and] research well.

Health service providers also stressed the need for culturally-competent services in urban sectors. They mentioned the need for educating the next generation of health service providers about the realms of Aboriginal health. As previously pointed out by the Métis and First Nations participants, health service providers also acknowledge their need for improved awareness and education about urban Aboriginal Peoples given the increasing trend of urbanization among Aboriginal Peoples. Health service providers also admitted that their perceptions of Aboriginal health contexts and approaches to handling the health issues changed over the years. As Vanessa, a First Nations diabetes prevention coordinator says:

At the beginning when I first started my job I just wanted to shake everybody and say, "make these changes," and as the years went by I realized I couldn't do that, and I might feel that way sometimes, but all I can do is give them the information of awareness and prevention ideas and just really be there if they needed to talk to me... Personally what I think, and from what I see, diabetes is the bottom of all of these issues [for example, abuse, homelessness, child protection etc]. And if they're dealing [with] these different issues, they're not going to take care of themselves because they're trying to survive.

Health service providers again shared their experiences of low turnout at diabetes education events and discontinuity in follow-up visits. Attracting and keeping Aboriginal Peoples in programs is a major challenge to prevention, as many health service providers recognize. Inadequate success in their efforts to address these barriers often makes the health service providers frustrated. However, their efforts to respond to the cultural need of Aboriginal Peoples do

not necessarily address the inter-group cultural variations. As Rose said, “whoever come to see us that identify themselves as having, being First Nations or Métis they come in to the same population groups as the other clients, so we don’t pinpoint them or identify... We cater to all population; we don’t identify one to the other.” In a sense, offering services to all Aboriginal Peoples is a very positive approach that makes services equitable for everyone, but at the same time may not be able to respond to the specific needs of different Aboriginal groups.

Explaining Diabetes

For health service providers, diabetes is a result of First Nations and Métis peoples’ changes in lifestyle over time. They primarily mentioned changes in diet and physical activity patterns as a result of government policies, and the relatively recent exposure to fast food, and substance abuse.

As Laura explained:

It’s because of so many changes from the traditional lifestyle to modern day—that’s a lot of the reason why diabetes is so high because... activity changed. You’re not on the land, you’re in a city where people aren’t going to let their kids go play on the sidewalk, rather than on a reserve where they can go... So activity is a big one. And diet becomes a big one [be]cause, you know, food is everywhere in an urban area, rather than in a rural, so everywhere you go you can access, like, [fast food chains] and things [be]cause it’s sold so cheap and convenient and that’s what people rely on. They lose those basic cooking skills and things like that.

For some health service providers, diabetes is a cumulative impact of lots of stressors influencing urban First Nations and Métis lives, including the lack of social support for parenting, the lack of childcare, and co-morbid disease factors. Participants explain that people who experience higher levels of stress often attempt to relieve these stressors by adopting unhealthy means of coping, such as substance abuse, sedentary life-styles, and overeating carbohydrates. In the same line, research evidence (Raphael, 2009) convincingly shows that continuous stress often predisposes individuals to the development of health threatening effects and makes them more vulnerable to many serious illnesses including T2DM. According to health service providers, diabetes is an

epidemic which is affecting First Nations and Métis communities at a faster rate than other communities. In this respect, Vanessa said, “I see diabetes and Aboriginal population going hand in hand unfortunately.” Health service providers also spoke about the terms of fatalism, denial and lack of hope among their First Nations and Métis clients, as it is rampant in the communities. Kim, a First Nations nurse, observed that,

[They] don’t care about their problem, particularly for men... [It’s not that] their health is not a priority, I see that, and I’ve been told on our outreach, unless you threaten them with, “you wanna live for your children,” that seems to be a point [on which] they will take some action.

This trend of not taking diabetes seriously brings challenges to the management of the long-term consequences of this disease. As Vanessa described it, “sometimes I don’t think they see the big picture of what could happen. Right now they may have diabetes as a beginning but project ahead five, ten years, what is going to happen?” While discussing their perceptions surrounding diabetes, health service providers brought up diverse opinions in terms of the legal status of Aboriginal Peoples and their related access to health services. In this regard, conversations took different directions, but participants agreed that access to health and social services based on First Nations and Métis people’s legal status and cultural orientation can explain inequities in diabetes prevention and management among Aboriginal population groups to a great extent. Kim, a First Nations nurse said,

I hear a lot of, “I can’t afford this,” “How often do you test your blood sugars?” “Well I only test them once a day, I can’t afford the strips”... Well, first of all, there’s some misunderstanding that they all get health coverage. Not true... A lot of them claim that, “I’m Métis,” or, “I’m First Nations,” but they never were registered under the Indian Act, so they never acquired status... They’re living on ODSP, disability, or social assistance... which as you know is very limited income... Trying to work with that, and manage diabetes is a challenge.

Factors Responsible for Causing Diabetes

Health service providers identified a range of factors responsible for developing diabetes. Their perceptions included both lifestyle changes and changing determinants of health in the contemporary urban context. As Vanessa said,

[Diabetes] certainly is increasing as a result of the people... moving to Ottawa. They're exposed to a lot of things that they didn't have in their homeland, such as, you know, fast foods, corner convenience stores that they can go buy things that's not necessarily healthy, [fast food chains], all these places—seems like on every corner. So as a result of that, people are not as active as they used to be. They're not eating their country foods; they're eating too much of the wrong foods or putting on weight. Their lifestyles have changed, so as a result, they're starting to develop diabetes [at] a little higher rate, not near [as high] as First Nations, but certainly getting there.

Historical Legacies and Government Policies

Health service providers also mentioned the role of historical legacies and past government policies in changing lifestyle patterns among First Nations and Métis people. Most importantly they discussed the forced relocation of people to reserves, and the subsequent changes in their dietary and physical activity patterns. Health service providers of Aboriginal origin particularly mentioned the intergenerational impact of residential schools. Their accounts also captured the idea that anything that prevents people from having good judgement, particularly about their lives, is going to impact their health and well-being. Participants strongly believe that alcohol and drugs introduced to the Aboriginal culture by the settlers play a major but indirect role in bringing health-threatening effects, such as the occurrence of diabetes. These colonial practices made the survivors powerless, ashamed, and made women even more marginalized within their own families, lands, and territories. As Vanessa described it:

Our people did not live on reserves... they didn't have the ownership; they were willing to have other people be there and share the land... So what happened as the years progressed is they took those people and they put

them on a small piece of land called a reservation, or the reserve... Previously they were used to living off the land, to travelling hundreds of miles to get the food to feed their family... So they were active, they ate healthy foods, they ate from the land, and they had a sense of self-esteem. They had self-respect... Once they were put on the reserves... they couldn't go out [to] hunt as much; they couldn't look after their family. As a result they started feeling ashamed... and then alcohol... and it caused the family to fragment... and often times the women and the men [were] both drinking, so the children didn't get the care or the parenting they needed, so they didn't get passed [on] the traditional stuff... I think residential schools had a really big impact because... hundreds and hundreds of kids were taken in different residential schools across Canada... They don't understand the concept of how to have a family, what the family needs... When they leave the residential school, they do the best that they can, but maybe they're not feeding their children healthy [food]. All of those things historically [have] led up to here.

Changes in subsistence patterns, which to a great extent were caused by these historical attempts, have resulted in considerable changes in physical activity patterns. Starting from the reserve life where physical activities were somewhat limited to the city neighbourhoods that sometimes do not even have safe places to walk, bike, or jog led First Nations and Métis people to adopt sedentary lifestyles. The high cost of membership to organized physical activities makes it beyond their reach. Health service providers also mentioned the legacy of colonization or continued colonization, such as institutionalized discriminations, stereotyping, residential segregation, and the lack of support that First Nations and Métis people are facing today. In this respect, Dr. Peggy noted “we'll never get over colonization, I think... We'll never get over the... that attempted assimilation and acculturation.”

Poverty and Education

Health service providers discussed how the limited material resources of many of their First Nations and Métis clients majorly affect their everyday lives. Although the economic backgrounds of First Nations and Métis people living in urban areas are quite varied, the majority live in poverty and face food insecurity, likely relying on fast food or community services. Dietician Laura explained that

A lot of the clients that I see have [financial] issues... They are telling me they only have so much money for groceries... They feel like, halfway through the

month, they don't have any money left, so they end up going to a drop-in centre, and things like that... But often times, like, the food there is not the highest nutritional quality... When I do diet recalls I ask them, "what did you eat in the past 24 hours?" You often see that there's at least one meal in there that's take-out.

Similar to the First Nations and Métis participants, health service providers think that low levels of education and poverty often make First Nations and Métis people feel helpless and powerless in their efforts to lead healthy lives. Participants' narratives also demonstrated that many of their Aboriginal clients are caught at the intersection of poverty and lack of education, thus helplessly rely on diet and activities available for them. As Vanessa said,

Poverty wasn't such an issue before they went on the reserves... They were healthy, but once they got on the reserve they were able to hold off that food quite easily... They weren't given a choice and they had to eat what came to them... [They were] very powerless, and so, as a result, usually when people even today start getting out in the work place, depending on [their] educational level, they have to accept jobs down here that barely pay [enough] to get food. I think not only among our people though, you see that everywhere of course... Poverty is an issue.

Rose added that "there's a definite link with poverty, and diabetes... sort of poverty goes with everything. If you're in a milieu where you don't get your education, for sure if you're not educated, maybe you don't understand the importance of exercise, eating nutritiously, about not using drugs, alcohol."

Urban Livelihood and Stressors

Health service providers mentioned the role of psychosocial factors in developing diabetes among First Nations and Métis people and in their ability to manage the illness. They mentioned that a notable lack of social or family support, urban life skills associated with unemployment, and formal education can act as stressors for diabetes. Participants also say that lack of social or family support, stress related to employment or multiple jobs, and stereotyping and stigmatization may even make Aboriginal Peoples with higher income susceptible to diabetes. In reference to the early onset of diabetes, health service providers again discussed the stress of living in an urban centre

along with the afore-mentioned determining factors. They discussed how young First Nations and Métis are exposed to more stressful conditions through bullying, peer pressure, and depression. As Vanessa says, in reference to Aboriginal communities:

They're dealing with other things that cause stress: bullying, peer pressure, [and a] family history of diabetes... Because of the peer pressure, they go home and they either under-eat [or] overeat... That's one life phase we're looking at. And then you're looking at their teenyboppers, and the teenagers, and the 20-year-olds, and they all have... different issues and problems going on... The stress of getting [an] education, passing their exams... Then when they get in their 20s, do I have to move to work? What can I do? Do I have to settle for a minimum wage job? How am I going to keep a family?... Then [you consider] a lot of the diseases and illness[es] that [are] occurring, and you think of all of that in relation to Aboriginal Métis communities.

Health service providers also discussed how stress resulting from urban living often led people to become unhealthy eaters or frequent eaters; this, along with not taking care of themselves and the responsibility of raising children and preparing food for the family, can naturally interfere in their ability to manage diabetes. As Dr. Peggy phrases it:

The stress itself, like the physical stress, many people get anxious, worried, depressed, you know, all those can come into play when you're living away from your community, away from your big family... In a big city, [there is] little support [and] maybe you don't know many people here. Eventually that has physical effects... [like] depression, which is often kind of forgotten when we see [a] diabetes patient... No wonder they can't keep the diabetes under control because of all those things they struggle with.

Health service providers discussed the forgotten aspect of mental health, including lack of self-esteem and self-worth and its role in making people susceptible to diabetes. Many statements reflected how First Nations people in urban areas become lost, unable to find meaning in their lives, and are more easily susceptible to alcohol and drug abuse. First Nations and Métis who are motivated and move to the cities for education and employment, however, can escape these traps—and can escape becoming sick.

Stereotyping and Misconceptions

In contrast to health service providers' perceptions surrounding limited financial affordability and its consequences for dietary practices and access to services among Aboriginal Peoples, it is also apparent that there are misconceptions and stereotyping of Aboriginal Peoples' access to federally funded health services among some health service providers. It is commonly conceptualized that all Aboriginal Peoples have access to free medication, supplies, and reduced-rate services, which is contrary to the reality. There are considerable differences in access to various health services between status Indians, Métis, and non-status First Nations people. The following excerpt from a medical doctor Kevin reflects these misconceptions: "I don't think money is a big issue. I really don't. In most cases, particularly First Nations people, they get most of their medications covered by the government." When prompted about non-status Indian people and Métis, Kevin agrees, "Not for Métis. That's true. So they don't have any of the advantages. So there are the expenses of medications definitely that can be very significant." It is well known that, in order to prevent the long-term complications of diabetes, it is important to monitor blood sugar, which requires costly regular supplies. For registered or status Indians, these supplies are covered under the non-insured health benefit (NIHB), but for non-status First Nations or Métis people, supplies are out-of-pocket expenses.

Community Services and Access

Health service providers admitted that it is difficult for their clients to keep up with community services available in this urban area and there is more need for a varied nature of community services. For example, not all community services are able to help in transporting people on wheelchairs, or pregnant mothers with young kids, elderly persons with difficulty in movement for their medical appointments, counselling, Aboriginal support, and community events. Further investigation revealed that determining criteria and available resources often restrict community

service providers' ability to cater services for all. They discussed how the limited availability and affordability of traditional and nutritious food in urban centres make it almost impossible for their clients to access those foods. Moreover foods available through community services such as food banks, drop-in centres, or donations are often non-perishable and high-calorie foods. Health service providers also understand that navigating through community services can sometimes be daunting for newcomers to the city, and thus limit their clients' ability to even get in touch with services or to know more about associated or alternate services. Rose added to the discussion by saying, "your life is changing because you're in a city now; you're not in your own environment... You may be transplanted in a city where you know you don't know all... where things are available, where to access services. These are all things that can impact your health."

Dealing with Diabetes

Health service providers spoke about a range of intersecting factors that complicate the management and prevention of long-term complications related to diabetes among urban First Nations and Métis people. Health service providers' perceptions reflect that these factors have exerted a cumulative impact, making everyday life a struggle for survival, which is characterized by lack of control over their Métis and First Nations clients' needs, with resulting negative consequences to diabetes management and overall health. "I often see people with diabetes and they come with a whole bunch of other complications [that] are linked to it... And if they are the ones getting frustrated with it, and not getting the education, well then they are sending that message to the younger ones, and they're not taking it..." said Laura, a health service provider.

Health service providers also offered many reasons why following a treatment regimen, healthy diet, and exercising are often more difficult for people living on a low income. Considering the significant challenges constantly faced by First Nations and Métis people with limited financial

resources, diabetes self-care and long-term consequences are at the bottom of their priority list.

Vanessa discusses:

It's not just what diabetes is, but it's everything surrounding [it] that makes it hard to manage... I mean, a lot of the people in those (urban) communities—in our communities—are living in poverty. So they have to live off of food banks... then they feel helpless. They really do feel helpless.

Health service providers find it challenging to bring the community members to adopt preventative steps and recognize the seriousness of a treatment regimen. Often, they observed a strong sense of inevitability about developing diabetes or its complications among their clients Rose says, “We have in this whole centre, particularly in the diabetes program, a 50% no-show rate... 50% so that's high.” Laura also adds,

With type 2 [diabetes], you can manage it with diet and exercise, but the interesting thing is... Metformin... because of [the] long-term damage it can cause to... the kidneys and things... Now a lot of health providers, like nurse-MPs and stuff, are trying to move people if they feel comfortable on insulin rather than keep them on Metformin... For some people who really can't just get the numbers down, they're better off moving to insulin rather than Metformin, and then this is what happens: the client thinks that if they move off of their orals and to the insulin, they think that they've done bad, that they've failed... But they're not... [be]cause there is a lot of fear... it's a needle—everybody's scared sometimes of needles—but if they can get past that, it's actually healthier, right?

Health service providers also expressed that First Nations and Métis community members may become reluctant to follow through the diabetes treatment strategies because health service providers primarily look at the disease in isolation; moreover, they often do not possess adequate knowledge about the background of their Aboriginal clients and overall health status of the population subgroups. These limitations among health service providers may limit their capacity to offer relevant information and treatment options for their clients. Participants also expressed that the rigid nature and structured operation of health services may be another reason why alternative treatment options are not attractive to the First Nations and Métis people. From their long-time experiences of working with Aboriginal Peoples, some health service providers stated that First

Nations and Métis people have a very different and flexible concept of time; and medical centres must then have open doors, longer hours, and welcoming staff who truly understand their clients. The nature of unidirectional communication from health service providers to clients may often make the community members lose interest in the health services or following through on the suggested treatment for diabetes. While Aboriginal health centres attempt to minimize some of these barriers, First Nations and Métis people still face these barriers in accessing services at mainstream health centres. Vanessa notes,

A lot of the time, I think, when they go to mainstream or when they go to the clinics... they just push you through. You go in and you might not be with a doctor too long... A lot of Aboriginal peoples... don't question the doctor necessarily... They don't feel they should, because the doctor's the authority figure.

Preventing Diabetes

While narrating their experiences of dealing with diabetes prevention and management and its long-term consequences, health service providers reflected their varied levels of understandings about changed Aboriginal population diversity and the increased importance of considering social determinants of health in their practices. Their narratives also demonstrated the challenges they face in operationalizing the concept of social determinants of health in their practice with diabetes prevention. Health service providers mentioned a range of issues while defining preventive diabetes care. For some participants, good preventative services mean treating their clients as human beings, being sensitive to their unique needs, and following their lead. While for others, such as Kim, preventative diabetes care means “eating healthy, feeling good and being active...” some health care providers think providing collaborative care for self-management is the key for providing good preventative services. For health service providers like Dr. Peggy, however, providing good preventative services means being in the community to make changes in peoples’ health behaviour. In the same line of thought, health service provides also mentioned the significant role various

Aboriginal organizations play in addressing barriers related to unemployment, low income, health and wellness, and education among Aboriginal Peoples. Participants also stated that prevention of diabetes is complex, which requires all sectors to work together to address the lifestyle factors that put individuals at risk. The sub-thematic categories that emerged after the analysis of health service providers' narratives on diabetes prevention are presented below.

Acting on Underlying Factors

Some participants disclosed their traditional ways of looking at their diabetic or pre-diabetic clients as the victims of not following the healthy lifestyle regimen, whereas now with a deeper understanding of their clients' life contexts, they were able to see the complete scenario of how one is at risk of becoming sick. Health service providers understand the interrelated impact of underlying factors and how their combined effects result in peoples' health outcomes. They were open about the number of intersecting factors when explaining why people face difficulties in diabetes prevention, self-management, and adherence to a care regimen of diet, exercise, medication, and blood glucose monitoring. Health service providers understood that living on a low income is extremely stressful for their clients. For example, they described the precarious conditions of their clients' lives, including being at risk of not having essentials such as food for families, medications, or not having enough money to pay rent or to pay for gas to get food in winter.

Vanessa notes several issues:

Not being able to heat your house properly because you can't pay for the heat that you need, or your hydro has to go off [be]cause you need to eat, or you need to pay the hydro, so you might miss your supper today... or your lunch tomorrow... It's not as simple as health issues. It's not as simple as physical activity and eating healthy. And often times, I know when I do workshops, it's so hard to address those underlying issues.

The above comments also reveal the health service providers' understanding of the life-long impact of social determinants on their clients' health, as well as the challenges of addressing those social determinants in their practices. Health services providers' efforts include information sharing

about local health and community services among the networks of service organizations, for example the “good food box” service as mentioned by Rose, the nurse practitioner mentioned before, which is accessible to everybody through the community health centres and provides fresh and accessible fruits and vegetables at a reduced cost.

Participants also stated that they felt a need to engage youth and children in diabetes prevention attempts, for example educating in the schools at an early age. Laura, a nurse practitioner, shared service providers’ efforts to address the determinants of health through teaching the importance of healthy diets, and traditional cooking methods. She explained that these efforts make a “community kitchen... that’s more like a gathering of people, making food, and the food was pretty healthy... at the Aboriginal health centre... [These efforts were] led by a dietician so there was an actual education component afterwards, [but it’s] no longer running.” Laura’s comments also reflect the barriers health service providers face when there are periodic discontinuities in these programs. Participants also discussed how engaging community members in cultural activities in urban areas could allow First Nations and Métis people to get in touch with their traditions and histories, which always has positive consequences in the fight against diabetes.

Education, Awareness, and Support Groups

Whereas lifestyle changes at the individual level are the usual focus of health service providers for preventing and managing diabetes, health service providers also identified the need for responsive support from multiple levels to better address the intersecting issues faced by First Nations and Métis people. Participants described a range of community health and other services that could increase self-management capacities, including programs and services for pre-diabetics and diabetics. Some of these services are already offered through Aboriginal health centre, Native Friendship Centres, and mainstream health or community health centres. These services, for instance, include diabetes education programs that focus on education, nutritional counselling,

treatment and management support for diabetes, and foot care. Although these programs are mostly geared towards diabetes management or prevention for long-term consequences among diabetics, pre-diabetics are also accepted in the program to teach them about self-management. These programs take place at their respective centres as well as off-site locations through outreach. Health service providers also called for more community outreach and improved relationship building between health and community services. Health service providers demonstrated the need for venues to accommodate physical activity programs and to educate people about basic life skills. Laura describes these needs as follows:

To prevent, there's a need for more physical activity programs, for sure. And there's also a need for more programs that are really based around teaching, like those fundamental life skills, like those basic cooking, basic budget planning, like those things.

In addition, participants think there is a need to improve access to the available culturally appropriate services in the city; for example, providing information about culturally-appropriate services, or providing daycare and public transit fares so First Nations and Métis people can attend programs or appointments. Registered nurse Kim noted that many of her community members, including herself, who recently moved to the city, were unaware of the Aboriginal health centre, Friendship Centre, and other government provided services. For Kevin, a non-Aboriginal doctor, teachings with Elders or community leaders and role models of Aboriginal descent might have the best impact on First Nations and Métis people for adopting preventative lifestyles. Kevin says,

If you can get Native people to do the teaching, it's much more meaningful than somebody like me, and to organize and to meet with groups and to encourage them and to share the successes with the failures and basically get people to believe.

Health service providers discussed the need for improved teaching methods; namely, an interactive, hands-on sharing of experiences would be the best method to communicate with First Nations and Métis clients. This method would generate a non-hierarchical space where everyone is considered equal during the teaching or training sessions. In reference to a program she admired,

Laura reflected that “a circle. I find that’s helpful for a lot of people... almost like a diabetes circle they have like a conversation... counsellors don’t really do that in terms of education, they do more like... [a] fun activity, and bring out a conversation that leads to you know other things, so I find this program [diabetes program at the Aboriginal health centre] is really great.” In addition, participants also recommended the incorporation of generational aspects into their diabetes education, as Aboriginal Peoples are often family oriented; therefore, teaching or discussions that centre on their family, and especially their children, is going to be more appealing and acceptable for them. This is seen in Kevin’s approach:

I talk, I look at their children, and I say, these are beautiful children, and they’re young now and you’re young now, but would you like to be a grandparent? Would you like to be a healthy grandparent or a sick grandparent? I try to make them look that far ahead as a way of motivating them to take care of themselves, so that when their child is old and has their own children, they can enjoy that beautiful relationship with their grandchildren.

Health service providers thought that increasing awareness about long-term complications of diabetes among their First Nations and Métis clients must be emphasized. Similar to First Nations and Métis participants, health service providers also discussed using social gatherings as a venue to undertake diabetes prevention initiatives, for example at powwows, community evenings, and any Aboriginal festivals. They have also recommended bringing in music as both First Nations and Métis love music, and it has a great healing capacity. Vanessa added to this discussion by saying:

When we are out at the powwows, at any Aboriginal festivals, we want to see... unity and positive[ity]... [be]cause drumming is a medicine, you know. The dancing is good... Walking or any type of physical activity is a medicine. Would you rather take that in a pill, or would you rather go and walk? ... Because if you go and walk, maybe one day you might not have to be on medication.

Need for More Structural Connections

Health service providers described health and community services as fragmented; they discussed the need for services that are more integrated, coordinated, comprehensive, holistic, and

responsive to the diverse needs of the First Nations and Métis communities. Targeted approaches seemed inadequate to health service providers, particularly in the context of Indigenous health, as First Nations and Métis people perceive health in a holistic way. Dr. Peggy's comments in this regard are pertinent:

You can't just treat one thing and expect the thing's going to be fixed, you know? In terms of Aboriginal health it's always been a holistic approach, so if you try to incorporate one thing from each determinant, and come up with an overall plan, and then use some of your programs that you're going to develop based on those pieces of pie, and the whole pie will be the holistic approach... And you're more likely to be successful, but it's not going to happen overnight.

Health service providers described some of the structured services available in the city that they believe address the needs of their First Nations and Métis clients. For example the Can-Risk events, which are meant for all local community members including Aboriginal Peoples to measure risk factors (such as blood sugar, waist circumference, and blood pressure), and to recommend the high-risk people visit their respective family physicians or walk-in clinic. Participants also discussed that in many cases recommended persons do not have family physicians, and walk-in clinics often have associated costs. It is clear that clients could lose hope by being confused by these services and the ultimate responsibility lies with the individual, and is dependent on financial ability, place of residence, access to transportation and various other issues. Participants, however, stressed the integration of structured services, for example through satellite services or through outreach, since lack of available space is also sometimes a barrier to integrate services. Vanessa also noted the overlap of services: "you have First Nations and the Métis and the Inuit and all the different organizations here... it's so important if they could work together more, I think that would be, they would become stronger in the programs they are trying to offer instead of duplicating... I think that is what people have to learn."

Need for More Health Service Providers

Health service providers of both Aboriginal and non-Aboriginal descent thought that more health related human resources are a priority for the First Nations and Métis communities in this city. They further recommended that more health human resources be of Aboriginal descent, as this will improve trust between providers and patients, and ultimately improve community health outcomes. As Dr. Peggy stated:

As a family physician, I'm very privileged, sometimes, that the people I meet choose to trust in me because they know I am also Aboriginal and that they will share with me things that they have never shared before... Being Aboriginal would be helpful, because some people have no problem talking to a non-Aboriginal person, and they feel even more comfortable when that non-Aboriginal person understands them well... But they will trust... an Aboriginal [health care] provider [even more].

Health service providers also emphasized the need for improved teaching of Aboriginal health for medical and nursing students. Increased knowledge and understanding of Aboriginal health contexts may prepare the next generation of health service providers to better serve their diverse Aboriginal clients. Participants also discussed the necessity for recruiting and retaining more medical and nursing students of Aboriginal descent in their respective training programs. In this regard, universities and training institutions need to be proactive. Apart from this, cultural training in Aboriginal health is also necessary for the doctors of non-Aboriginal origin who are serving First Nations and Métis clients in mainstream or Aboriginal health centres. Participants felt that these efforts might reduce the health human resource shortage in the organizations that serve Aboriginal Peoples.

Need for Understanding Aboriginal Diversity

When asked about pan-Aboriginal approaches in existing health services, health service providers took different stands, reflecting a varied understanding of Aboriginal population groups. Some participants thought that the majority of First Nations people still live on reserves, whereas

others thought that Métis people have been living in the cities for several generations. For some participants, Métis culture is seen as different from First Nations culture, whereas for others, Aboriginal culture in urban areas is a mix. Over the course of my narrative interviews with health service providers, I understood that the Aboriginal service organizations they represent take a pan-Aboriginal approach that does not make any distinctions between First Nations, Métis, and Inuit. Health service providers were aware of the political, legal and cultural diversities among Aboriginal Peoples and they understood that outsiders impose a pan-Aboriginal approach in service provision. That said, these service providers were frequently unable to implement that knowledge in their practices. Participants noted that some First Nations and Métis groups are well integrated into mainstream society, while others outside of major centers still require more First Nations and Métis specific services. Participants understand that the situation of the Métis people is quite different than others, as Dr. Kevin describes:

I think the dilemma... for Métis person[s] is, what is their community? ...
Which community do they want to be part of? ... [Be]cause they have [a] foot
in both communities, right?

Some participants thought that because the Métis population in this urban centre is quite small, they may not warrant any particular Métis-specific concern. This perception may be indicative of Métis being well-integrated into mainstream society, which makes them less visible among the Aboriginal community members. Services provided in Aboriginal centres are inclusive rather than specifically targeted to Métis or First Nations. Overall it is evident that health service providers did not recognize much difference between Métis and First Nations people. But when questioned further after being informed by community participants' perspectives, they did recognize the over emphasis on First Nations culture and traditions in Aboriginal health services. Participants like Kim also realized that "there needs to be more work done on linking Métis services here to what they're offered... So far I've seen mostly First Nations here, where you know we do the tradition, drumming

which is not in the Métis or the Inuit.” Participants discussed ways of integrating services specific to all different Aboriginal cultures. “I guess the only way they might come together if they’re offering a workshop on diabetes or on health that includes that diversity of their cultures so you’re having someone in this workshop talking about what relates to Métis,” said Vanessa.

Need of First Nations and Métis Communities

Health service providers identified the basic needs of their clients: employment and income, equitable access to health and social services, access to education, and a safe and secure place to live. Participants believed that addressing and fulfilling these basic needs must be the priority in diabetes prevention and management in these First Nations and Métis communities. They discussed the need for integrated programs that teach fundamental life skills, such as cooking, gardening, budgeting, parenting, and navigating health and social services in the city. Health service providers also acknowledged the need for generating services for Métis people. The health service provider participants also highlighted the need to engage open-minded and trustworthy personnel for these programs who are respectful and accommodating, and who take the time to hear individual issues. To this end, Kim noted the need for one-on-one sessions because “their [Aboriginal Peoples’] strength might not to be in a big group of people... they might be extremely shy, they might feel they’re not going to be heard anyways if they speak up, so, that could be their weaknesses and once you bring them into the group they could be strong knowing that they can be powerful rather than powerless.” However, health service providers always emphasized the responsibility of the individual: “it’s your responsibility to make those changes. I can’t make you make those changes. All I can do is talk about what I know and hopefully you will look at one thing and make that change,” said Kim.

Health service providers thought there was a great need for urban specific First Nations and Métis statistics to understand and address population-specific health needs in urban settings. As Dr. Peggy mentioned,

It's a little bit harder to collect statistics for Métis, right? Because they're more integrated into the mainstream society and they go here and there for healthcare, not necessarily a Métis health centre... but in the Métis settlements themselves, they have better statistics.

Both Peggy and other health service providers acknowledged the difficulty of collecting the Aboriginal population-specific health data, specifically about Métis and non-status Aboriginal Peoples. However, participants emphasized the need for better understanding and knowledge of Métis culture, history, and the related underlying factors that condition Métis health today.

Strengths of First Nations and Métis Communities

Although there are varied perceptions about the community strength of First Nations and Métis people, health service providers who participated in this research undoubtedly believed that the sense of community is a major source of strength for both First Nations and Métis people living in this city. As Laura mentioned:

Well, there's such a great Aboriginal community here, like yeah, you know, people can flow off one another, like, if someone needs something, someone else is right there to help you with it.

Health service providers also think that taking a community approach to getting people educated and involved in the discussion about diabetes would be a great strength in motivating people toward prevention and management. Health service providers also discussed the possibility of health courses or "mini medical schools" offered at the local venues to teach local community members about diabetes in a First Nations and Métis context. Health service providers also noted that Aboriginal communities are close-knit communities that value their culture, history, music, and story-telling, and these components need to be integrated into the social gatherings that discuss diabetes, its prevention and management. According to health service providers, Aboriginal role

models who have successfully overcome the risk of diabetes in their lives or manage its complications well would be the best persons to discuss the prevention and management strategies with their community.

Health service providers pointed to recurring issues among their First Nations and Métis clients, significantly a lack of motivation and a belief that diabetes is unavoidable and eventually leads to disability or death, especially for those who have a family history of diabetes. Conversely, they identified the readiness to adopt diabetes prevention among some of their clients, which health service providers identified as great community strength. The state of readiness, motivation and acceptance may be varied, but it is there and thus can facilitate successful preventative approaches, as Dr. Peggy notes:

I think, generally speaking, people want to see diabetes get better in the community... So, just acknowledging that is probably, you know, a major factor that will get things going... like a motivation to improve their care, their outcomes, the services, you know.

Health service providers also identified local Aboriginal organizations as a source of strength in the prevention of diabetes or in overcoming its complications. In participants' views, Aboriginal organizations are integral to disease prevention and health promotion for their communities, for they integrate traditional knowledge that is transmitted through storytelling, ceremonies, values, medicines and traditional ways of living. In particular, participants noted the welcoming, committed, and well-informed staff at these organizations as a strength.

Although health service providers mentioned the lack of socially- and culturally-appropriate services for First Nations and Métis communities, they often felt that Aboriginal organizations and their flexible and committed staff were one of the advantages of being in an urban location. Some urban programs even provide transportation support for the elderly and those with chronic health conditions. Some health service providers believe that another advantage of being at the urban

centre is that their clients are at the juncture of western and traditional medicine, which is often not available at the rural or remote communities.

In addition, participants thought that resources available outside of the health sector for urban Aboriginal communities might help to address the social determinants of health. Moreover health service providers pointed to the resurgence of Aboriginal culture as a definite strength, particularly among the young First Nations and Métis people. Many of the First Nations and Métis people who were disconnected from their culture, language, and traditions are increasingly coming back to their roots, learning their language, and participating in ceremonies, which health service providers identify as a positive step among the community members. Health service providers believe that being close to their community values, traditions, and cultures will significantly help First Nations and Métis people gain their self-confidence and self-respect. This in turn has the possibility to motivate people to make positive changes in their lives. As Vanessa observed:

They're slowly coming back. We see that in the different areas that... more and more younger people are very interested in their culture; they're trying to learn more about the powwow, the drumming and the language. The language is coming back... Think of all the years it took to erode it; it's going to take a lot of years to come back.

The resilience among their urban First Nations and Métis clients in dealing with all the structural barriers in order to move forward was also observed by health service providers.

Barriers to Prevent Diabetes

Health service providers discussed location, transportation, shortage in health human resources, physical space, funding, and inconsistencies in accessing services as barriers to the provision of preventative services for First Nations and Métis community members. Health service providers working at the Aboriginal health centre particularly mentioned the lack of capacity and physical space as the most prominent barriers in their practices. Being the only centre in the city that provides culturally-appropriate services for Aboriginal clients, it is always very stressful and

challenging to accommodate all the community members. They also feel that location and hours of operation are not always convenient for local First Nations and Métis communities. Although they provide bus services, there may be need for child care or special transportation needs. There is also lack of financial resources, as many popular programs are discontinued due to the shortage of funds. Laura recalled “we had a healthy cooking class, for example, that we had women come to and cook, it was for men and women... but now there’s no funding for that so there’s no really healthy specific cooking class that was led by another dietician, so it’s kind of sad to see those kinds of things go.” Often, health service providers try to address these barriers in collaboration with other centres or by using other organizations’ places. However, it can still be difficult for some of their clients to commute, and subsequently can lead to the clients discontinuing the use of these services.

Health service providers also described their lack of knowledge and awareness about the urban First Nations and Métis people as another barrier against providing meaningful services for their clients. Dr. Peggy noted that these barriers were “the factors that affect their health. Racism, colonization still plays... into assumptions and stereotypes and racism... So people who just don’t know, you know, they may not even realize they sound racist, or are working in a racist way... they need to learn.” Health service providers also acknowledged an inability to understand and acknowledge the linguistic, historical, and cultural diversities within and between Aboriginal population groups. Participants thought the lack of interest among First Nations and Métis clients in seeking preventative or management services for diabetes was a significant obstacle towards implementing diabetes prevention strategies. Participants particularly mentioned the difficulty in engaging pre-diabetics and male First Nations and Métis members in their services, which could significantly reduce the complexities with diabetes. To address this, participants discussed bringing in Elders to motivate the community members in social settings, involving family members in the

group education sessions, making them aware of the importance of their healthy existence to next generations, and connecting their health services with other social services for cross-referral.

Facilitators to Prevent Diabetes

Health service provider participants also drew attention to the centralization of Aboriginal health and social services in the downtown area of the city as an obstacle to the prevention of diabetes. They felt that if the services for Aboriginal Peoples could be extended to all the four corners of city, through satellites, branches or extended centres, they would increase their reach, and the response of, and impact on the First Nations and Métis health. In participants' understandings, flexible program hours, location of the centres and welcoming and understanding staffs can facilitate significantly increased participation. They also discussed service integration to better utilize space and people offering the services. Increased funding could definitely act as a facilitator to successfully run many services. In addition, health service providers discussed the need for increased funding for social services that can address and meet the basic needs of First Nations and Métis people as these services have the potential to deal with multiple life issues in addition to diabetes.

Aboriginal health service providers suggested that addressing diabetes in the context of family, community, and other life events may make the services more responsive. Dr. Peggy observed that "in Western medicine we're just trained to look at that person and look at the problem at hand, but I think you gotta think about what their family's all about, and what their community might be here in [city], in their neighbourhood, and [what] it might be in [native reserve]." Knowing and incorporating their clients' cultural, historical, and linguistic backgrounds in the diabetes education sessions could potentially increase impact.

Health service providers also discussed engaging the Elders, role models, and community champions in their preventative actions can make preventive programs more responsive to the

peoples' needs. Engaging Elders in diabetes education programs or connecting their clients with other services often gives them the opportunity to learn their traditional ways of dealing with food and physical activities in this urban setting. Services should also be oriented around the periods of a month when First Nations and Métis members are more available to seek social services. To this end, Kim shared her experience in a community kitchen:

There's low attendance at community kitchen at the end of the month. Why? Because they get their cheque [and] don't need you. Our strategy is, [on] the... first or second week [of the month], target them early, [and] try and get them budgeting so they can last.

Offering foot care as a regular service is another strategy for attracting First Nations and Métis community members, as foot care is a necessity in the management of diabetes. Health service providers also thought that increased visibility in the community could increase reach to their members. Health service providers also identified the need for a positive approach towards diabetes prevention from both the communities and professionals as a facilitator to combat this illness.

Policy Initiatives

Health service provider participants stated that programs and services for diabetes prevention and management for Aboriginal Peoples deserve better attention from policy initiatives. They mentioned how many successful programs that addressed the basic needs of First Nations and Métis clients were terminated due to lack of funding. Those programs were not only useful to prevent or manage diabetes but also to improve overall health conditions. The need for funding incentives from the government for certain programs and practitioners to keep people physically active or to educate people on healthy lifestyles was also raised. Health service providers also discussed the high employee turnover in Aboriginal services, in many cases as a result of low wages due to funding shortages, which have repercussions for response to diabetes prevention strategies.

Increased funding is needed for new equipment and space; it also encourages people to continue physical activity programs.

Health service providers also called for improved policy planning based on needs instead of the number of people attending certain programs. They stated in many cases that program funding is based on the number of people accessing or using a particular program. This narrow definition of a successful program actually misses the essence of it, which is embedded in the impact that the program is making among the community members, not the mere number of people accessing it. This discontinuity in services due to lack of funding demoralizes both the clients and providers, which again has greater implications for continuity in diabetes prevention and management. Participants also thought that improved policy initiatives for recruitment and retention of health human resources of Aboriginal origin may solve health human resource needs for Aboriginal Peoples' health. Rose wonders "if they [Aboriginal services] could have more funding to access their community, to have more nurses for them, more dieticians, in their own culture. So somebody who could better understand what they like to eat, better understand the activities they like to do, to cater to their particular needs. And that would be a beginning and maybe get more funds to get more physicians and nurse practitioners who are Métis, or Aboriginal."

The following table (Table 4) summarizes the thematic categories developed from health service providers' narratives detailed above. These categories are congruent with the constructs of social determinants of health. These thematic categories are also informed by individual concepts identified during the process of analysis that broadly speak to intersectionality and the legacy of colonization; Aboriginal diversities in legal and social statuses and cultural and spatial backgrounds; barriers and facilitators to offer preventive services. Successive subcategories wherever appropriate are denoted with participants' narratives, and present the intersecting determinants of diabetes and its prevention in urban First Nations and Métis peoples' context.

Table 4: Health Service Providers' Perceptions

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
1. Experiences in Aboriginal health service		Income and Social Status, Social Support, Employment, Social Environment, Physical Environment, Education and Literacy	Financial issues, Urban realm of Aboriginal health, Structural barriers, Stress, Low access to services, Cultural competencies of urban realities, Aboriginal organizations, Knowledge among HSPs about Aboriginal Peoples and their health
2. Explaining Diabetes		Income and Social Status, Social Support Networks, Physical Environment, Education and Literacy, Social Environment, Gender	Historical changes, Rural to urban migration, Changes in subsistence pattern and dietary practices, Intergenerational stressors, Long-term complications, Legal status of Aboriginal Peoples, Self-blaming, Women as providers, caregivers, and mothers-compromised diet
3. Factors Responsible for Causing Diabetes	Historical Legacies and Government Policies	Physical Environment, Income and Social Status, Social Support Networks, Health Services	Historic changes , Residential schools- loss of traditional method of cooking, educating and raising children, Changing determinant of health, Exposure to fast food and urban lifestyle
	Poverty and Education	Education and Literacy, Income and Social Status	More education, Financial issues, Poverty, Changing determinant of health

Table 4: Health Service Providers' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
3. Factors Responsible for Causing Diabetes (contd.)	Urban Livelihood and Stressors	Physical Environment, Income and Social Status, Social Support Networks	Exposure to fast food and urban lifestyle, Diverse Aboriginal population, Stress
	Stereotyping and Misconceptions	Physical Environment	Legal status, More education
	Community Services and Access	Social Support Networks, Physical Environment	Changing determinant of health, Diverse Aboriginal population
4. Dealing with diabetes		Education and literacy, Health services	Health complication, Need for education adults and youth, Demographics of Aboriginal Peoples, Need for a medical centre with open doors, Limitation of Western medication
5. Preventing diabetes	Acting on underlying factors	Education and literacy, Health Services, Social Environment, Physical Environment	Need for Structural Connection, Education, awareness, support, Need for HSPs of Aboriginal descent
	Education, awareness, and support	Education and Literacy, Social Environment	Role models of Aboriginal descent, Methods of diabetes teaching, Education, awareness, support
	Need for more structural connections	Education and Literacy, Health Services, Social Environment, Physical Environment	More physical activities
	Need for more Health Service Providers	Health services	Need for HSPs of Aboriginal descent
	Need for Understanding Aboriginal diversity	Education and literacy, Health services, Social environment	Socialization

Table 4: Health Service Providers' Perceptions (contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5.Preventing diabetes (contd.)	Need of First Nations and Métis Communities	Health Services, Physical Environment, Income and Social Status, Social Support Networks	Need for HSPs of Aboriginal descent, Expansion of Aboriginal health clinic in four directions, Understanding Aboriginal diversity, Need for a one-stop shop for Aboriginal Peoples for diabetes prevention
	Strength of FN and Métis Communities	Social environment, Education and Literacy	Role models of Aboriginal descent, Methods of diabetes teaching, Education, awareness, support, Social Gathering, Sense of Community
	Barriers to prevent diabetes	Education and Literacy, Health Services, Social Environment, Physical Environment	Resurgence and resilience among youth and adult, Aboriginal organizations, readiness, and acceptance in the community about diabetes prevention
	Facilitators to prevent diabetes	Education and Literacy, Health Services, Social Environment, Physical Environment	Readiness Among First Nations and Métis Community Support
	Policy Initiatives	Education and Literacy, Health Services, Social Environment, Physical Environment	Expansion of Aboriginal health clinic in four directions, Understanding Aboriginal diversity, Need for a one-stop shop for Aboriginal Peoples for diabetes prevention

Section 2: Policy Maker's Perspectives

Similar to the health service providers, I directly recruited the policy makers based on their respective positions that directly or indirectly impact strategic planning and decision-making surrounding diabetes prevention, management, and health service provision for urban Aboriginal Peoples. Policy maker participants belonged to both non-governmental, advocacy organizations, and local, provincial, and federal government organizations. As mentioned in Chapter 1, policy makers participated in this study are the ones who take decision-making roles in the public sector as policy makers and managers, and as directors and managers working in national and provincial levels non-governmental and advocacy organizations. Three of the seven policy makers were of First Nations origin, one participant was of Métis origin, and the rest were non-Aboriginal participants. Two participants belonged to national advocacy organizations, including an executive director and manager, while the other three policy makers were from federal government departments, including one manager, one program manager and one policy analyst. One participant from each group was involved in a provincial decision-making position and a local-level health planning position. Five of the seven participants had five to 10 years of experience in the Aboriginal health field, and one participant had over 10 years of experience in this field; only one participant had less than five years of experience in Aboriginal health.

Experiences in Aboriginal Health Policy Field

Policy maker participants across the board stated that addressing diabetes in First Nations and Métis people is a priority for their respective organizations. Although policy makers from federal government departments were more concerned with the on-reserve population, policy makers or planners from local-level government expressed their sense of responsibility towards both urban and rural Aboriginal Peoples. All the policy maker participants, however, stated that

their respective organizations were trying to address the community's needs. Throughout the course of the conversation, I discovered that some organizations work in collaboration with others to improve the quality of lives of their Aboriginal clients, while some government departments follow their own mandates. Narrative analysis of data revealed that national-level organizations' broad policies are informed by pan-Aboriginal ideas rather than a population-specific approach; at the local level, however, there is an increased understanding and effort among policy makers to address cultural and socio-economic needs of all three Aboriginal Peoples. Barbara, a non-Aboriginal professional participant who has a health planning role at the local level, says:

Our main mandate is for integration of health services and care; prevention is part of it... How we have worked with the Aboriginal group is to help and support their own work plan and... their own issues that they feel are most important... Two of the main health issues [Aboriginal communities have] identified are mental health and addictions in childhood and youth, and pre-diabetes and diabetes.

Policy makers also stated that there is a lack of Aboriginal population-specific data in the urban areas, which hinders the provision of targeted services. In this respect they emphasized the need to generate research evidence to further explore urban Aboriginal communities, particularly with respect to the reach, response, quality, and impact of the existing services. Participants discussed how the majority of statistical evidence on disease prevalence conflates different Aboriginal population groups; so, finding population-specific information in urban areas is a barrier to the development and implementation of effective services. Participants believe that this background information is vital to identify gaps in health and social services through research and policy development. The need for tools and messaging for diabetes education also required strengthening in terms of diabetes prevention. Policy makers shared their experiences of dealing with fiduciary obligations at different levels of government. Deborah, a non-Aboriginal manager and policy advisor representing a federal government department, says:

On-reserve Aboriginals [are] a federal responsibility. When they are off-reserve, they are a provincial responsibility. I think it's likely that the provincial government will have an incentive; they will want to collaborate with us... One of the issues is that there is a lot of back and forth, right? I mean, you can be registered... as living on-reserve, but then go off-reserve. There's a lot of migration back and forth. The federal government doesn't do health services, right? For anyone off-reserve, [federal efforts] would be prevention... and education, awareness... Now, what [do] we do with the vulnerable populations?... [The Diabetes Initiative] has been [dealing] with the Aboriginal populations off reserve, right?... We would like to expand that reach... It's been a small pocket of money that they've had to work with [in] the off-reserve and Inuit communities.

Policy makers agreed that the allocation and disbursement of funds from the federal government tends to overlook urban Aboriginal Peoples' needs, as the federal government has the fiduciary obligation towards on-reserve populations. Moreover, here the term 'Aboriginal Peoples' means status Indians and Inuit only; thus Métis and non-status First Nations people are excluded from their programs and services. In this respect the only exception of federal health initiatives is the Aboriginal Diabetes Initiative (ADI)^{xiv}, which was established to reduce type 2 diabetes among Aboriginal Peoples by supporting health promotion and diabetes prevention activities and services in Canada. The Métis, Off-Reserve Aboriginal and Urban Inuit Prevention and Promotion Program (MOAUIPP) stream of the ADI provides funding to the urban Aboriginal projects across Canada. Funding allocation for the MOAUIPP stream is, however, relatively smaller than its rural component as captured in the following excerpts of a program manager working at the federal government level. Ken revealed:

[Urban Aboriginal Peoples receive] little funding because, [for] most programming that the federal government does, the funding goes directly to communities on reserve... because the fiduciary responsibility of the federal government is for First Nations on reserve. And that's in the treaties, and all the papers you'll find, including bill C31—all that stuff is all about First Nations on reserve... [So when] our people leave the land and they go into the city, it gets a little tricky because then the responsibility of care and all that... becomes a provincial responsibility because they're outside of their First Nations [reserve].

Policy makers shared their varied experiences of working in the field of Aboriginal health that spans decision-making, policy analysis, disbursing funds, planning health services, and taking advocacy roles for the improvement of Aboriginal health. My particular interest was in capturing policy makers' respective roles and experiences in an urban Aboriginal health context. Policy makers from federal government departments mentioned that they are responsible for contributing in upstream intervention, such as capacity building, research, surveillance, screening and evaluation of services through funding disbursement, grants, and contributions that support national and regional organizations across the country. Similar to health service providers, policy makers also emphasized the prevention of secondary complications of diabetes through diabetes self-management. They felt it was particularly important in the context of the increasing number of peoples at high risk of diabetes. Deborah summarized the federal government's position: "we are much more targeted to... sort of looking at more people are at high risk of diabetes, but also very much a lot of the focus is management, self-management... and early detection among high-risk populations." Policy makers also shared their experiences of dealing with health human resource recruitment and retention issues in the Aboriginal health context. Their narratives reflected the limitations of a pan-Aboriginal approach, suggesting that it is unable to recognize the diverse needs of the communities. Shauna, a policy analyst of First Nations descent representing a provincial organization, shared her perspectives in this respect:

The term "Aboriginal" is more like an umbrella term; it was imposed on people, so it's not reality... I think each group has their own unique needs and strengths as well... The needs of the community in Kingston as opposed to the needs of the community and the culture in Moosonee, and in Thunder Bay, are going to be totally different. So you're really only going to provide services to individuals who are accessing it.

Explaining Diabetes

The majority of the policy makers viewed diabetes in terms of its prevalence and incidence rates, including geographical variations of these rates. While discussing diabetes, participants also raised the issue of First Nations and Métis community members' lack of interest in understanding the realities surrounding diabetes. For example, policy makers stated that there is a lack of initiative or willingness from the diabetics and pre-diabetics to adopt and follow healthy lifestyles to either prevent the disease or delay its long-term consequences. As Melanie, a research manager, explained:

They don't want to hear... I guess they have to be willing to change, and a lot of people aren't there yet. Even though they have been impacted with diabetes or cancer or heart problems, you have to be willing to change. And until that happens, it's just going to be this more of the same.

Policy makers also placed emphasis on the accessibility and availability of culturally appropriate services while explaining their view about diabetes: "Using a holistic approach, the wellness, you know traditional healing approaches... I think those are some of the considerations we have to take into account," said Barbara, a health planner working at the local level. With respect to service provision to prevent and manage diabetes, policy maker participants discussed the need for improved inter-governmental initiatives and highlighted the lack of a coordinated effort between different government departments to fund the programs and initiatives to reduce resulting duplication in services.

Some policy makers also discussed diabetes in terms of the basic determinants such as the need for appropriate diet and adequate physical activities, and noted the costs of following healthy diets. They recognized that living in the poor neighbourhoods of urban centres, with access to convenience stores rather than grocery stores, can lead people to adopt unhealthy dietary habits. Regarding the basics, policy makers also discussed First Nations and Métis peoples' limited ability to

take part in physical activities due to high cost, timing, transportation, and child care needs.

Participants' comments demonstrated how the status versus non-status designation of Aboriginal Peoples divides health service provision, particularly with regard to who is getting what services from whom.

Factors Responsible for Causing Diabetes

When asked about the factors responsible for increasing the likelihood of developing diabetes among First Nations and Métis people, policy makers responded with their varied understandings and experiences. Similar to the community members, they considered historical legacies, social determinants of health, including access to culturally appropriate health care, employment, diet, and physical activities as major contributing factors to incidences of diabetes. They also identified lack of social support in the urban areas, poverty, food insecurity, and neighbourhood safety in relation to regular physical activities as other determining factors of diabetes. Barbara explains:

I think there's, you know, a long history of issues related to the Aboriginal population [and] how we dealt with them in the past. You know, there [are] residential schools [and a sense of] separation, perhaps, from people that have moved from reserves to the city, and they feel dislocated. [Aboriginal Peoples new to the city] don't have social supports [or] family supports, you know whether they are employed or not. [A] different way of life, [a] different pace of life. There's all of those different factors that might influence a person's health...Well, I mean, the social determinants of health. I mean if you're struggling on a day-to-day basis just to put food on the table then, you know, trying to manage a condition like diabetes is not the easiest thing in the world. So, you might have [a] lack of money to buy the food you need, to buy the supplies, the glucose monitoring strips, the medications... I think poverty is a big issue, but I think those historical issues are also just as important.

Historical Background

Similar to health service providers and community members, policy makers also thought historical legacies played a major role in affecting the social determinants of Aboriginal Peoples'

health over generations. They discussed the continued impact of loss of traditions, knowledge, and skills on health outcome. Shauna, a policy analyst of First Nations descent, elaborates:

Historically, Aboriginal Peoples have [had] an extremely strong connection to the earth... When the disconnect from our land started to happen, we were put onto reserves, then we experienced this abject poverty, right? And, you know, communities where you have a high incidence of poverty and hopelessness, etcetera, etcetera, you're not going to be eating explicitly right foods... How this has affected our health? Because we're disconnected from our land, disconnected from our medicines, and from some of our more spiritual practices, it makes sense... and [this] obviously affected our health, on a spiritual level, on a physical level, and on an emotional level. All of these things are interconnected, you know, in our spiritual teachings... So, if you look at that perspective and then go back, where do you think emotional manifestation is going to happen when your children are taken away, when you're sexually abused as a child in residential school, [or] when your culture and your language—everything—has been taken away from you, etcetera, etcetera, etcetera? That emotional trauma will manifest itself in your health. Not just for Aboriginal Peoples—for anyone.

It is understood from the policy maker participants' narratives that continued racism toward, stereotyping, and the marginalization of Aboriginal Peoples as a legacy of colonial policies negatively affected their health and well-being. One example shared by a participant to what extent continued racism affect young Aboriginal Peoples' self-esteem and ultimately their physical state of health. Ken in this respect says,

This [lack of self-esteem stems] from the colonization and the residential schools. That has a huge impact on the diabetes we see now and a lot of the other diseases... that are going on in the communities [and] in our urban settings... [This arises out of the transition from] pre-colonization or even pre-residential schools, and you're thinking, our communities had hunters, they [had] gatherers, they had our cultivators... our women ran our tribes.

Policy makers discussed how the inequitable access to government services for First Nations and Métis people is impacted by colonial policies. Some health service providers thought that First Nations people are more affected by colonial policies than Métis since First Nations existed in Canada before settlers arrived in this country.

Choice versus Reality

Life in cities is part of the Aboriginal reality, as the life in reserve or rural settings, or in Métis settlements, has been for many. Searching for employment in urban economies, arranging space for living, seeking education and health care, interacting with neighbours of various cultures, and making spaces for Aboriginal cultures and languages are Aboriginal realities in urban areas. These facts make it difficult to choose to lead what is called a 'healthy' life. Policy makers stated that First Nations and Métis people cannot choose to live healthy lives because of the barriers they face in urban areas. Policy makers' narratives revealed that there is a lack of initiative from the community to lead healthy lives, but also recognized intersecting factors that impede their efforts to choose nutritious food or active lifestyles. When dealing simultaneously with several different priorities in their lives, community members often do not even find a way to choose healthy food. Similar to health service providers, policy makers also mentioned the convenience of fast food, particularly in urban areas where there is ample opportunity to access this food, which is less expensive and readily available. In this context, the lack of access to affordable and nutritious food was identified by the policy makers as one of the major contributing factors in diabetes. Deborah, a federal level policy advisor, raised the issue of food insecurity by saying, "What we call food security has a lot of different meanings to different people. But one of them certainly in our case... is access and when I say access, I mean that it's affordable." Participants also discussed how the lack of knowledge with the community regarding the preparation of healthy food could be another factor preventing people from adopting a nutritious diet. Deborah added to this discussion by saying,

It's not just how much food costs, it's about the time that it takes to prepare food... and the fact that... busy families just don't have the time to make the meals that would feed their kids well instead of going to grab a burger at [a fast food chain]... That's not just an issue in poor families, that's an issue in all families. Time's a huge factor and you know getting people cooking again is... a big undertaking.

Participants' narrations illuminated the reality of government restrictions on fishing, hunting, or gathering food from nature; these limitations hinder access to traditional food among Aboriginal Peoples on-reserve or in rural setting. Again securing access to these traditional foods in urban areas is expensive. Urban Aboriginal Peoples who go back and forth to their native communities are also deprived of accessing traditional foods due to the imposition of government restrictions. Participants also discussed the interconnected role that determinants of health, such as education, physical environment, political decisions, and economic status, play in securing access to healthy food. Melanie says,

The majority of the people... in our community... [are] in poverty. So there is no choice but to buy... baloney or buy flour to make bannock. So, as much as there [is an] impact [from] colonialism, there are also systemic barriers... I think [the determinants] are all really connected... You can't separate one and just focus [on it].

It is illuminated from the participants' narratives that physical environment and inappropriate urban planning obstruct access to healthy diet and physical activities. Participants' narratives demonstrated that Aboriginal Peoples living in poor neighbourhoods do not have easy access to grocery stores, have lower than average access to specialty food stores (for diabetic persons), and physical activity centres or community centres. However they show ample access to non-nutritious food outlets (fast food outlets, convenience stores). As Georgia explains:

If you're living in low income housing, you're not necessarily in the best neighbourhood... I think urban planning plays a role... Do they have access to grocery stores? Maybe not... Maybe it's... just the corner store.

Similar to health service providers, policy makers also discussed how lack of physical activity plays a significant role in developing many chronic health conditions, including diabetes among First Nations and Métis people. They highlighted the lifestyle changes from being nomadic to becoming sedentary. As Waldram (2006) stated that in the past including the Arctic or subarctic areas, Aboriginal Peoples lived primarily by hunting, trapping, or fishing. Whereas in present urban setting

they primarily rely on store-bought or fast food that does not require much physical effort.

Participants identified the lack of neighbourhood safety in urban areas as an obstacle to undertake natural physical activities, such as running, jogging, and walking. Participants like Georgia stated that in many instances poor urban neighbourhoods are not safe places for outdoor activities; she explains,

I've walked around neighbourhoods in this city with lower-income housing. It doesn't feel as safe as walking around a neighbourhood... where there isn't social housing... So, when you think about exercise, because exercise can be something that is like prevention, something that people can do to maybe try to prevent [diabetes] or maybe [just to] be healthy in general, right? I mean, walking and jogging are low-cost exercise activities.

Information, Knowledge, and Education

Policy makers say that lack of knowledge and education about diabetes among First Nations and Métis community members increase their likelihood of developing diabetes. Participants' discussions further proved how poverty or food insecurity may be an essential factor in creating the context of Aboriginal health; but there is a need for coordinated effort to act on the other intersecting determinants, such as lack of awareness, education, and information about diabetes and its prevention.

The lack of formal and informal education among First Nations and Métis people was seen as a barrier to successful diabetes prevention. Participants discussed how lack of self-esteem and confidence among Aboriginal Peoples arising from insufficient formal and traditional education may make them incapable of progressing in life, which again relates back to the history of Aboriginal colonization. Lack of education may also act as a barrier to social services available in the locality; as a result, using those services to improve social determinants of their health becomes challenging. Policy makers narrated that the educational atmosphere, curriculum, and institutional culture in urban areas may be quite shocking, particularly for first generation First Nations and Métis migrants, as the resources and standard of education in reserve or rural areas may put the students

a little behind in comparison to their peers in urban schools. Participants also shared that the lack of resources and supplies in rural schools may make the students unexposed to many educational activities, for example inadequate laboratory experiments in science classes. These experiences could make the young migrants shy and uncomfortable and, thus, generate lack of self-esteem and self-confidence. Intersecting with these academic and institutional factors, stereotyping, bullying, and peer pressure place the young people in an environment that is not supportive of their overall development. They are less likely to continue their formal education, which subsequently puts young students at risk of low wage employment, poverty, food insecurity, and ultimately, at risk of developing chronic diseases. Judy, a policy maker further elaborates:

It's the magnitude of things... that impacts the social determinants of health. Like even for the Aboriginal youth who are raised in this city and have gone to city schools, they are even in a much better position than the newer kids coming to town because even they know the bus system, they know how to get around.

Dealing with Diabetes

Policy maker participants shared their varied perceptions surrounding coping and managing diabetes from their respective decision-making roles, in particular the issue of quality of life for those who suffer from long-term complication of diabetes was discussed, such as amputation, vision, or kidney problems. In Ken's understanding,

The potential health complications are a problem in general, especially if it's not being managed well... It can be demoralizing to live with a chronic disease like that, you know? So I think that can have an effect as well, like it's already a population that's dealing with different kind[s] of... you know, historical traumas, traumas that people might experience themselves first hand or again kind of through that intergenerational trauma... I think this is a problem with the worst health outcomes we see in general, because that can also just be demoralizing... [for] the individual and the community.

Policy makers brought up the issue of availability of support systems for those living with diabetes while discussing the potential implications of diabetes. The lack of good support services make the situation more complicated for the Métis and First Nation persons dealing with diabetes.

Again, the access and affordability issues of diet and physical activities were the two main barriers identified by the policy makers to prevent diabetes-related complications.

Participants also discussed the appropriateness of the diabetes management models; some favoured the preventative holistic model for diabetes prevention, but in most cases, this model was not available in urban centres, with the exception of one Aboriginal health centre. They have also discussed the lack of family-oriented preventative services for diabetes prevention. Shauna notes,

[It is] very important to be family-oriented, because you're giving diabetes education to the individual who's suffering from diabetes, but ... in many cases, it's not family-oriented, education, and preventative things, you know. The whole family needs to be educated on these different kinds of things... Specifically if it's an Aboriginal First Nations family that has, you know, more of a chance of having diabetes right?

The fact that the language in which diabetes education is offered, either because it is clinically-oriented or offered only in English, may not always be well understood by the First Nations and Métis people. Language barriers can create a huge disconnect between health service providers and Aboriginal communities. This point further clarifies the previously mentioned issue of lack of understandings among health service providers concerning Aboriginal Peoples, their health, history, economy, culture, and society. It was also perceived that more policy planning and cultural training for health service providers is needed to improve the overall scenario.

Preventing Diabetes

While describing preventative services for First Nations and Métis people, every policy maker participant touched upon the issue of integrating culturally appropriate services for First Nations and Métis people living in urban centres. However, their understandings about diversities within and between Aboriginal population groups were varied, and so were the responses to Aboriginal Peoples' diverse needs. For some participants, responding to Aboriginal diversities meant integrating First Nations and Métis culture and traditions into existing services; for others, it was to

respond to the needs of specific communities' concerns. Kevin, a program manager working at the federal level, said,

If we want... good care, good services, good programming... there's got to be a continuum of culture, and that goes from the province to the federal government to the municipality. The whole [of] health care there has to be [a] continuum of culture because really that's what's important to our Aboriginal People.

For Kevin maintaining 'continuum of culture' means acknowledging Aboriginal diversities and offering culturally-appropriate services, which should be followed at all levels of governments. Participants also said that in order to provide culturally-appropriate services, it is very important to create supportive and safe environments. They think that preventative services designed and practiced in the mainstream health arena often focus on what is wrong as opposed to considering the individuals holistically and acknowledging their strengths. So there is a need for welcoming and a capacity-building component in good preventative care. Policy makers also discussed the potential for combining traditional and mainstream medicines. Building on the strengths of both systems, preventative health services could respond to the clients' needs successfully. Particularly in urban centres, both First Nations and Métis are required to consult both systems. Moreover, diabetes education models should incorporate life experiences to explain preventative approaches rather than explaining these approaches with medical jargon that is often unclear to First Nations and Métis people when neither English nor French is the language of everyday use.

Similar to the health service providers, policy makers also thought that open communication, including flexible hours of operation, and caring, respectful, and accommodating staff members and health service providers, are key factors of good preventative services. In addition, participants stressed the need to increase capacity and resources to provide preventative services in urban sectors. There is also the need for an inclusive approach in good preventative services for Aboriginal Peoples, as Aboriginal Peoples of diverse socio-economic, cultural, legal, and

educational background come together in urban areas and likely require diverse, but inclusive, preventative services. Following the sub-thematic categories reveal with further detail the policy makers' understanding of diabetes.

Barriers to Diabetes Prevention

While discussing the barriers to diabetes prevention, policy makers mentioned a range of factors starting from funding issues to a related shortage in health human resources and program sustainability. The combination of these factors collectively poses significant barriers to diabetes prevention. Funding shortages lead to the loss of educated staff and to the closure of certain health and social programs, which greatly affects the established relationship between service organizations and community members. Participants agree that the trust and relationship that health service and social service providers develop over the years with their First Nations and Métis clients is key to the successful operation of any program. Policy makers realize that, when trust is broken, it is challenging to bring clients back into a new program when new funding comes. Policy makers also expressed their understandings that this trend of program interruption or discontinuity is common in health and social services offered to the Aboriginal Peoples, and so serves as a barrier for clients who are trying to follow various strategies for diabetes prevention and management. In this context, participants also discussed how a significant amount of staff members' energy and time is invested in organizing continued funding applications, instead of investing in service improvement to better serve their clients.

Similar to the health service providers, policy makers also mentioned the lack of statistics and data in relation to diabetes, its associated needs and expectations in the First Nations and Métis communities, particularly in urban communities. Policy makers also identified the lack of research evidence surrounding diabetes among urban First Nations and Métis people as an obstacle to the provision of culturally appropriate and meaningful preventative services for them. Shauna, a First

Nations policy analyst working at the provincial level, identified the lack of information on Aboriginal population demography as another barrier to understanding and acknowledging the Aboriginal population-specific issues, particularly with respect to Métis. She further stated that not only is research evidence lacking, but so is research based on valid methods that have the potential to inform policy change, as Shauna narrates her experience:

There's just a lack of information and valid research about [Métis issues]. People say in Canada, you're really only looking at on-reserve population[s]... There's some very good research there, but maybe the methodology wasn't [presented] in a way that you can actually use that directly towards a policy change... That remains, you know, a challenge in all areas. We have a lack of statistical research specific to health, and specific to, maybe, a variety of individuals.

Participants' narration reflected that the actual number of Aboriginal Peoples living in urban areas is not well represented in the available census data. Discrepancies in the available data often obscure the development of decisions or strategies to improve services.

Lack of knowledge about Aboriginal communities among health and social service providers is a serious obstacle to meaningful diabetes prevention strategies; this ignorance concerning Aboriginal members leads to the development of programs that fail to address the fundamental needs of the community members. For example, services are offered to all Aboriginal groups, but they only present the culture and tradition of one Aboriginal group and will likely not meet the need of all other Aboriginal groups. This may create further inequities in service provision across the urban Aboriginal population groups.

Policy makers found that differences in service provision based on the legal status of Aboriginal Peoples is a barrier to diabetes prevention and management. In addition, medicines and supplies covered through the federally funded non-insured-health-benefit for status Indians are also facing cutbacks. This trend is of serious concern for First Nations peoples who are trying to prevent the long-term health implications of diabetes. Planners or policy makers working at the local level

find it challenging for the health service providers to reach out to the scattered Aboriginal community members in the city. They also think that health service providers may find it difficult to provide the qualitative impact of services necessary in the communities. A health planner, Barbara, who is responsible for local level planning or decision-making, acknowledged that policy makers always look for quantitative measures when forming policies, but she also stated that qualitative indicators of success is equally important to identify the reach, response, and impact of prevention programs. Barbara in this respect says:

I think one of the challenges that service providers have is getting policy makers to see that certain methodologies are of value because many policy makers and funders look at quantitative data... But what's not necessarily developed well enough yet are the qualitative indicators... for example, if there was the impact of [an] afterschool program on x, y, and z. There's not enough of that... available and so a challenge for a policy maker is to recognize that and to incorporate that into any of our performance measures.

Similar to the community members, policy makers shared their doubts about the political will to make real change in Aboriginal communities and particularly to address the social determinants of health, such as affordable housing, safer neighbourhoods, and increased education. Participants expressed their inability to continue to put forward plans, support, or provide funds for certain programs with the periodic changes of policy priorities. They explained how the present attitude in the higher level, decision-making areas often fail to see the specific community's needs; thus, policies that tackle particular incidents or issues on a priority basis, or as initiatives, do not address the social determinants of health of a population group in a comprehensive way. Georgia explains:

There's this general kind of shift to the right, you know, that's sort of what I've read, and what I've noted around the world. So coming out politically and saying, "Well, we really need to tackle poverty in a large way and that's going to cost a lot of money," it's not the most desirable political message to give. So from a public policy perspective... your departments... [are] going to be focused on other things, smaller pieces that maybe do focus more on the disease rather than on the social determinants.

Participants stated that organizations at the local level develop and provide their services based on plans they have submitted in their funding proposals to the federal or provincial governments or private organizations, which in most of the cases are very focused and limited. “[Local level] organizations don’t generally do big strategies because they’re usually in the position to do... direct action to deal with something specific and they’re usually doing that with limited funding that’s restrictive,” says Georgia. Judy added to this discussion by saying,

The biggest constraint on our association [is fitting] needs to what funding sources are available. And often, there isn’t a strong connection and, especially, when a lot of the Aboriginal organizations have been forced to move to project-based funding, it means... the work you can do is defined as the project. So you can’t always do what the organization may feel is really the need or what it wants to pay attention to.

Measures to tackle these challenges or barriers were identified as engaging and including Aboriginal Peoples of First Nations, Métis, and Inuit descent in the design, implementation, and offering of services at all levels of government. Participants believed that programs developed to engage Aboriginal Peoples of diverse backgrounds may resonate with their cultural, linguistic, socio-economic, and health service needs. Georgia shared her vision:

I think the problem is that a lot of times you see decision makers, you see providers, trying to come up with the answer, but, you know, maybe we’re not people that should come up with the answer, so that’s probably what I would do. I would turn it back, and get the community members to direct it, even come up with the vision for it, and then the people that work in the organization can kind of plan the details. But I think there should always be a community advisory capacity, and the representation, and it shouldn’t just be a token one First Nations, one Métis, it should just be diverse even within that: men, women, different ages... But then the challenge of that is of course, that [the] process would take a long time. But I think if you were going to do it properly, that’s how it should be done.

Facilitators for Diabetes Prevention

Policy makers identified the range of facilitators for diabetes prevention services. Their comments primarily recommended the development of intersectoral collaboration among various

government departments to address the basic social determinants of health. Ken, a policy maker from a federal government department, mentioned:

There's the government burden that we're not coordinated, like we don't work with the provinces enough, we don't work with [a federal government Agency] enough... The one huge thing in government is still so silo-ed... The rules and regulations that are in place [and] the policies that are in place make it really difficult to really work with different people and to combine funding. It's a nightmare sometimes. It takes years just to change little policies... so that's frustrating.

Serving the needs of all three groups require the coordinated effort of intersecting determinants of health. The policy makers discussed using public venues to publicize the prevention strategies of diabetes, particularly in areas where the majority of the target population live, but at the same time not leaving out areas of the city of Ottawa with low concentrations of Métis and First Nations people. Deborah says,

Education is huge, so this is a multi-sectoral... all-of-government approach that needs to be factored in.... Everyone knows that [education] is an issue. It's how to solve it. I mean, I think that some people would say you're not going to solve anything unless you solve the poverty issue, right? Are [Aboriginal health services] even putting the information in public libraries... or daycare centres? You know, are they really leveraging where people are? We know sometimes the most effective way to reach people is to put notices in hockey arenas.

Participants' narration reflects that there is need for a coalition of Aboriginal organizations to come together to advocate for the needs of all three Aboriginal population groups, particularly at the national level, to create a common vision and goals in diabetes prevention. Good leadership at all levels of governments is imperative in achieving this. Similar to health service providers, policy makers also suggest that sound evidence of urban Aboriginal population demography, epidemiology, and health service needs could help facilitate the creation of programs for community members. Available resources and services could also be integrated through inter-organizational collaborations to address funding shortages or discontinuities. Participants also recommend the development of service models that meet the diverse needs of all three groups of

Aboriginal Peoples, both at the urban Aboriginal and mainstream health centres. Policy makers always emphasize the federal government's role in developing policy strategies because they set the national policy, which to a great extent regulates inter-governmental and inter-departmental collaborations. Their recommendations include consulting research evidence and best practice models from different jurisdictions or from international organizations working to improve Indigenous health.

Policy makers place emphasis on the strategies that respond to the increasing demands of urban Aboriginal Peoples that are a result of the increasing rate of urbanization in these communities. In particular, the system needs to be more proactive in dealing with the increasing needs of long-term complications of diabetes among Aboriginal Peoples. In the course of conversation about system strengthening, participants like Judy mentioned that understanding Aboriginal diversity is much broader than offering cultural sensitivity training or dealing with poor people. As Judy stated:

The system has to realize that they are dealing with Aboriginal People in different contexts, and not every Aboriginal person is poor ... I think the onus is on the system [to make] every provider aware regardless of where they are, you know?

To this end, policy makers state that service implementation requires sustainable programming that continues beyond its pilot project stage. Participants further state that inter-organizational collaboration for successful service implementation and continuation is a must. This collaborative initiative can help publicize programs through their respective networks and cross-referrals, which can also keep First Nations and Métis people by reminding them of their follow-up visits. Judy explained,

Not every good practice involves more money; some[times] it's just a little bit more time and consideration and thinking... really looking at the issues, at how... information [is] being sent out and how... people being [are] followed up with, about why they couldn't get to appointments... rather just than assuming, "oh that's typical [of an] Aboriginal person, they don't come back

for appointments.” Does anyone try to reach them and say, “could you tell us why you didn’t make the appointment?” Is there anything we could do to help you get to your next one?” ... That whole aspect of the social determinants of health is critical.

Needs of the First Nations and Métis Communities

Policy makers also talked about health promotional and educational needs for health.

Participants mention that the First Nations and Métis community members need to seek help early and get in touch with preventative activities rather than waiting until serious complications arise.

Given the demographic structure of Aboriginal Peoples, with a high number of young people and early-onset of T2DM, seeking help for preventative services at an early age is urgent. Communities

also need to come together to identify and voice their collective needs. Following this line of

thought, policy makers mention that in many cases funding is determined based on the number of people impacted by a particular health issue or concerned with a particular health need. Therefore,

it is necessary to present the collective needs of the First Nations and Métis community members to the policy makers. Participants thought that offering culturally-appropriate services for First Nations

and Métis people from more than one centralized location using multiple methods of operations would better address social determinants of health. In this regard, participants discussed the need

for encouraging young First Nations and Métis people to learn more about health sciences and to increase the health science knowledge base, which requires various initiatives to improve

educational attainment at the high school levels and then to encourage them to attend medical or nursing programs.

It is understood from the participants’ narratives that due to the interconnected nature of necessities for diabetes prevention and management at the community level, there is a need for

one-stop-shop style places at the different areas of the city, where all health and social services and even diagnostic tests can be done. This would be particularly useful for people who have

transportation or mobility issues. Policy makers also presented that community members need to

make themselves aware of the services that are available in the city. Increased efforts are required from the local organizations and various levels of governments to inform community members about the services available in the locality. In particular, participants see the need for improving or developing strategies to address the needs of the newcomers to the city given the increasing urbanization among First Nations and Métis communities.

Strengths of the First Nations and Métis Communities

Like the health service providers, policy makers believe that the biggest strength of the First Nations and Métis people is their sense of community. The nature and function of the urban Aboriginal community is somewhat different than rural or reserve communities. In the urban centres Aboriginal communities are mostly created and maintained through the clientele of the local Aboriginal organizations. First Nations and Métis people, for example, come to the Friendship Centre for social, educational, or spiritual purposes. Therefore, these organizations play a crucial role in improving the quality of lives of all Aboriginal Peoples in a coordinated manner and in keeping a balance between the physical, mental, emotional, and spiritual aspects of their lives. Policy makers discussed that the strength of a community means not only personal strength and the commitment to understand themselves as Indigenous People, but also locating the connections between common interests in the urban centres, workplaces, educational facilities, and places of residence. Thus, recognizing themselves as an urban community, coming together and working together is one of the positive things about urban First Nations and Métis communities. The Aboriginal health centre is recognized as being a great strength of this community. They also think that extending this health centres' services to the other parts of the city could immensely benefit the First Nations and Métis people. Georgia spoke of the strengths of Aboriginal organizations, and how,

They're not thinking about how do we adapt [programs and services], they're just thinking how do we do it for our population. And that's sort of speaking

to the principles of community development. You know? It's better when it sort of comes from the community itself rather than gets placed on top of them.

Another recognized strength of the community is its committed providers in the health and social service programs. In spite of various obstacles and challenges, as well as insecurity with their own professional careers, these providers offer their best to accommodate the community members' needs in overcoming the difficulties of diabetes prevention and management.

Policy Issues

Policy makers talked about the role policies from different levels of governments play in preventative health service provisions. Policy makers express the need for more research specific into urban FN, Métis and Inuit groups. Participants discuss the need for the implementation of policy decisions identified through research initiatives in order to develop tools for diabetes prevention. They suggested that research must identify the needs of the urban communities as well as the tools to address those needs. Participants again emphasize the need for further research on diverse urban Aboriginal communities. Regarding this, Georgia said:

First Nations among themselves are even very distinct, so that, I think, is always going to be a challenge, because if you've got a local organization even, you know... whether it's a Friendship Centre or an Aboriginal organization, or otherwise, like the city... that's a hard thing. How do you create something that's going to resonate culturally with Inuit, Métis, First Nations... and even within that they're all very distinct. ... But then the challenge of that is of course, that [that] process would take a long time.

Policy makers recognized the number of resources required at the level of service organization to respond to funding calls; they also recognized the challenges faced when responding in a timely fashion to ensure the survival and continuity of services. Sometimes funding calls come suddenly, however, and the organizations quickly put something in the proposal in order to respond without time for a community consultation phase to reflect the community's need for some programs or initiatives. As such, some local-level decisions are made at the top, developed and

implemented without community input. Participants also discussed the policies affecting the federal and provincial jurisdictions and responsibilities in service provisions, and the complications created when First Nations people come to urban areas. They suggest that reviewing these policies in the present context would be beneficial to resolve some of the issues related to federal government's fiduciary responsibilities.

The lack of capacity in health human resources is likely to encourage more students of First Nations and Métis origin to acquire higher education in medicine and nursing. Funding is always instrumental for initiatives to improve the responsive services in urban centres through health human resource development. Policy makers suggested that the availability of funding, to a considerable extent, determines the necessity to undertake research for needs assessment for urban First Nations and Métis communities. Often, organizations have to deal with multiple-level funders and policy makers to try to patch together different resources to offer services for their clients. When a community advisory committee identifies the services relevant to their own communities, however, then it works to a higher degree than when it is decided, planned and implemented from the outside without any community input.

Participants also discuss the need for policy initiatives to raise awareness for Aboriginal Peoples and their needs in urban sectors. For example, participants question the effectiveness of new technologies in preventative services for Aboriginal Peoples when social determinants are not considered. Barbara spoke about the diabetes registry:

That's a use of the technology where People will receive automatic reminders and things like that. Well, you kind of have to have a computer and internet, you know? Is that really going to be effective or not for certain populations? I don't know. That's something that has to be considered.

Policy makers also recommend that more work needs to be done for Aboriginal Peoples through research and partnership building. While discussing the need for responsive health services for a diverse group of Aboriginal Peoples, participants recommend a balanced approach that has a

common vision and some common goals, that also enables each group or community to work within those parameters to address the needs of their communities.

Aboriginal Diversities

When asked, participants spoke about the pan-Aboriginal versus the First Nations or Métis specific nature of health services and corresponding policies. For some participants, population group-specific policy makes more sense for making it relevant to the specific community than taking a pre-existing pan-Aboriginal approach. Participants state that in urban centres, developing a community-specific policy means making it relevant to the specific groups of Aboriginal Peoples, such as Métis, First Nations and Inuit. Furthermore, policy makers mention reaching out and responding to the needs of Aboriginal organization-based communities, such as clients of the Aboriginal drop-in centre, shelter for Aboriginal women and men, Native Friendship Centre, and Aboriginal health centre. Participants again recommend having people from all three Aboriginal groups representing different geographic regions so when policies are implemented it is then up to those groups to make them relevant for their own communities. Participants also recognize the limitations of Aboriginal policies, as they often are developed and geared towards First Nations. They suggested that the reason for this could be that First Nations are the more visible and prominent group or they may have voiced their concerns before other Aboriginal groups.

Summary and Conclusion

The views of health service providers and policy makers captured in this chapter tended to address both biomedical and intersecting social determinants of health views about diabetes causation similar to community participants as described in previous chapters (Chapters 5 and 6). In contrast to the recommendations provided by the community members, their solution to this health issue tended towards addressing the individual biomedical risk factors of diabetes. In general,

health service provider participants viewed T2DM as a physiological malfunction of the body that is negatively affected by adverse socio-economic conditions; they viewed diabetes management within the context of lifestyle modification. In this sense, they were more inclined towards individually-oriented strategies than structural reforms. In a similar line of thought, policy makers expressed the need for reducing T2DM through policy and health service program modifications aimed at inducing active living and healthy food intake. They described policy initiatives that they believe are working or will work to tackle the range of social and economic determinants of health through increased funding for health human resource development, sustainable preventative programs, and knowledge and awareness about urban Aboriginal Peoples as expressed by the First Nations and Métis community participants previously (Chapters 5 and 6). Moreover both health service providers and policy makers expressed that there is a need for more demographic and epidemiological data, and general requirements specific to urban Aboriginal population subgroups. At the pragmatic level, professionals' solutions to T2DM tended to address measurable biomedical risk factors, although they discussed the need for developing qualitative indicators of success of prevention programs in practice. Similar to the community participants, both policy makers and health service providers recommended service integration to collaboratively address the basics of Aboriginal Peoples' needs in order to improve health and well-being as well as reduce the risk of diabetes or its complications: both groups of professionals believed that inter-governmental and inter-organizational collaboration will help reduce duplication of services and so reduce resource crises. Given the increased urbanization of all Aboriginal groups, policy maker participants of this study similar to previous study (Place, 2012) felt the need for revisiting the policies that regulate inter-governmental jurisdictional disputes in service provision. Both groups of professional participants admitted the inequalities in access to health services between Aboriginal subgroups based on their Aboriginal status are detrimental to their overall health outcomes. Contrary to the

previous studies (Gregory et al., 1999, Heuer and Lausch, 2006) about patients and providers' views on Aboriginal diabetes, an increased understanding about the importance of social determinants of First Nations and Métis health among the health service providers and policy makers has been captured in their narratives as documented in this study. Understanding the intersecting nature of these determinants and working on them in health service provisions and policy decision-making has yet to be consolidated by health service providers and policy makers.

Overall, in response to questions about occurrence, prevention, and management of diabetes among pre-diabetic, diabetic, and at-risk First Nations and Métis people, policy maker participants spoke of a range of intersecting factors that make the population under study susceptible to the disease and complicate the challenges of coping or managing it. Similar to community participants, policy maker participants recognized that colonial history and its resultant policies and legacy created distinctions in the population in the present urban context, which made day-to-day life a continued struggle for survival characterized by generalized insecurity and lack of self-control among urban First Nations and Métis community members. These intersecting social determinants include low income, inequities in access to culturally-appropriate health services, lack of awareness, education and information about diabetes, health and social services, legal statuses that impede access to health services, gender, lack of social support, and stress. All of these determinants have cumulative and adverse effects on pre-diabetic and diabetic First Nations and Métis people. With the biomedical risk factors of diabetes such as poor diet and physical inactivity arising from these intersecting determinants, their susceptibility to diabetes is compounded, increasing the challenges to prevention by the individuals and their health service providers. Funding for the continuation of particular programs and changes in policies or priorities also limit effective diabetes prevention and management, as participants understood the repercussions among health service providers and community members when program sustainability is uncertain.

At the same time, they recognized the time, effort and resources that are being invested by the health and social service organizations to apply to various funding sources to continue their programs. The situation becomes further complicated due to the challenges of high employee turnover, which is often a result of program unsustainability.

The following table (Table 5) summarizes the thematic categories developed from policy makers narratives as previously detailed. These thematic categories broadly speak to the constructs of social determinants of health and intersections of legacy of colonization; and Aboriginal diversities in legal and social statuses, spatial and cultural backgrounds; related access to federally funded health services or benefits, and availability of funding to operate, implement and run prevention programs. Subcategories of these intersecting categories primarily included policy priorities and funding as identified by the policy makers are presented in the following table (Table 5). Diabetes prevention, care and management must focus on interventions that are sensitive at both individual and community levels and that engage community partners and build on community knowledge so as to move beyond simple aggregation of individual "oppressions" and social identities as expressed by the community and professional participants of this study; and recorded in previous study (Hankivsky and Christoffersen, 2008). In this regard, improving determinants of health, acting on funding shortage, removing the barriers to access health benefits based on legal status, generating research evidence, and intersectional collaboration are some strategies suggested by the policy makers participants and presented under the major thematic category "Preventing Diabetes" and its sub-categories in the following table (Table 5). These actions converge to the importance of an intersectional analysis in order to the evolving nature of vulnerability among diversity of urban First Nations and Métis peoples.

Table 5: Policy Makers' Perceptions

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
1. Experiences in Aboriginal Health Policy Field		Income and social status, Health services, Education and information, Culture	Funding, Intersectoral collaboration Jurisdictional squabble Access to culturally appropriate health care Players involved: public-private Available resources Local level data- specific to Aboriginal groups
2. Explaining Diabetes		Physical environment, Health services, Income and employment	Location, geographic area Accessibility and availability of services Diet- associated cost, transportation in management Stress Success stories Health literacy Community activities Status versus non-status User fees- physical activities Information about programs and services
3. Factors Responsible for Causing Diabetes	Historical Background	Education and literacy, Income and social status, Physical environment, Culture, Health services	Historical issues Systemic barriers
	Choice versus reality	Income and Social Status, Physical environment	Compromised diet and physical activities Neighbourhood safety Lack of urban Planning Lack of diabetes education, Poverty

Table 5: Policy Makers' Perceptions (Contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
3. Factors Responsible for Causing Diabetes (contd.)	Information, knowledge and education	Culture, Health services, Education and literacy	Limitations in biomedical approach
4. Dealing with Diabetes		Personal health practices, Health services, Income and social status, Education and literacy	Historical trauma, Inclusiveness, Income drop, Knowledge about dietary choices, Western and Indigenous medicine
5. Preventing Diabetes	Barriers to Diabetes Prevention	Physical environment, Education and literacy, Income and social status, Social support networks, Employment and working conditions, Culture, Health services	History- trust, Improving determinants of health, Political will to tackle poverty- capacity, Funding shortage, Access to health benefits based on legal status
	Facilitators of Diabetes Prevention	Physical environment, Education and literacy, Income and social status, Social support networks, conditions, Culture, Health services	Political will to tackle poverty- capacity, Improving determinants of health, Intersectoral collaboration, Good leadership at the government level, Research evidence, Sustainable programming
	Needs of First Nations and Métis Communities	Physical environment, Education and literacy, Income and social status, Social support networks, Employment and working conditions, Culture, Health services	Education for HSPs, Sustainable programs, Culturally-appropriate services, One-stop shop for services

Table 5: Policy Makers' Perceptions (Contd.)

Thematic Coding Categories	Sub-Thematic Categories	SDOH Constructs	Intersectionality
5. Preventing Diabetes (contd.)	Strengths of Aboriginal Communities	Culture, Social support networks	Readiness in Aboriginal Peoples to live well, Sense of Community, Aboriginal Organizations and their clients
	Policy Issues	Employment and working conditions, Physical environment, Education and literacy, Income and social status	Research evidence as a tool, Coalition of organizations and departments, Sustainable programs, Education for HSPs
	Aboriginal Diversities	Culture, Physical environment, Education and literacy, Income and social status	Addressing Aboriginal diversity, Culturally appropriate tools for prevention, Policy initiatives

Chapter 8: Discussion, Recommendations, and Conclusions

The purpose of this community-based study was to describe and interpret the experiences related to Type 2 diabetes (T2DM) of First Nations and Métis people, their health service providers and policy makers by asking: What does T2DM mean to the different groups of participants? What are the factors responsible for the development of this disease and what actions can be taken to address these factors? The answers to these research questions were intended to inform existing diabetes prevention, care and management strategies in order to reduce the incidence of T2DM in First Nations and Métis people. More specifically, I wanted to identify the perceptions about causal factors of this understudied condition in an urban context to see what could be done to address its progression and propagation. As discussed in the literature review (Chapter 2), research dedicated to the perceptions surrounding susceptibility to T2DM in urban First Nations and Métis people is limited. Moreover, research efforts to capture the perceptions of policy makers and health service providers with those of the community members are even more limited. Policy makers' perceptions of urban First Nations and Métis people's susceptibility to T2DM are important because they influence health service delivery. Moreover, the perceptions of those in T2DM policy making roles in urban settings might be different from those of people who experienced or provided services in non-urban, reserve, or remote settings.

This chapter is organized into five major sections. In the first two sections, I present a brief description of how diabetes and its prevention are perceived by the First Nations and Métis community members, health service providers, and policy makers. The divergence between and convergence between First Nations and Métis community people, and health service providers and policy makers' understandings point out the need to develop culturally appropriate health services that respond to the diversity of urban First Nations and Métis people's historical, socio-economic,

legal, cultural, and spatial realities (See Appendix 20). Third, I present this study's relationship to its conceptual premises. A brief discussion entails application of intersectionality theory, with an emphasis on its utility for extending analysis of intersections of social determinants of health. Fourth, I offer some recommendations to reduce disparities in diabetes outcome, indicating that the whole approach to diabetes prevention, management, and care requires re-examination in light of the emerging alternative approach of diabetes causation that espouses intersecting social determinants of health. I conclude this dissertation by highlighting the limitations and strength, future direction, and issues of consideration, such as the application of intersectionality theory in further research and policy action to support the amelioration of inequities in the social determinants of First Nations and Métis health.

Understanding Type 2 diabetes by the Research Participants

First Nations and Métis Community Members

The findings of this research (Ghosh, 2012b; Ghosh et al., 2012) are consistent with other Canadian studies on urban First Nations and Métis people (Gregory et al., 1999; Thompson et al., 2000; Thompson and Gifford, 2000), which describe Aboriginal community members' understanding of the causes and consequences of T2DM as a complex process situated within multifaceted aspects of their lives. This study provides evidence illustrating some of the central factors directly or indirectly linked to the emergence of T2DM and to its prevention (Ghosh, 2011a and b). The emerging model (Figure 1) described later in this Chapter illustrates how intersecting structural factors such as socio-economic, legal, cultural and spatial factors impact diabetes incidence as identified by the participants. First Nations and Métis community participants continue to view T2DM as a response to specific issues or challenges in their lives. Consistent with the findings of international studies (Lautenschlager and Smith, 2006; Schulz et al, 2006; Lipsky and Sharp, 2004)

with American Indians including Pima and other Indigenous people living in urban or inner city or rural and remote areas, both First Nations and Métis participants' perceptions reflected that intersections of their legacy of colonization, the urban context in which they live, and diversities in socio-economic, cultural, legal, and spatial aspects of their lives have created the backdrop for diabetes occurrence (the broad thematic categories such as "historical legacies, Aboriginal diversities and geographic location in the Figure 1). Within this context of inequalities, biomedical risk factors of diabetes such as non-nutritious diet and physical inactivity that inequitably affect First Nations and Métis people are generated and propagated. Past and present government policies and historical decisions on limiting Aboriginal Peoples' right to traditional practices for securing natural diets have been heavily criticized by the community members and are considered one of the antecedents of diabetes in this population. Associated with these changes was the intergenerational impact of residential schooling on dietary patterns, including food selection and preparation among Métis and First Nations people. Loss of traditions and practices intersecting with socio-economic barriers, spatial segregation in urban sectors, stress, lack of urban life skills, stigmatization, and low self-esteem may have led both First Nations and Métis people to depend on foods and lifestyles (as depicted in the columns of "structural factors" and "consequences" in the figure 1) that were neither their choice nor appropriate for their health. Moreover, easy access to fast food available at a relatively lower cost meets the First Nations and Métis participants' needs—to some extent—when they are living in an urban setting with the stress of unemployment, inconsistent jobs opportunities, lack of family or social support, child care responsibilities, and many more issues. In addition, the constant adjustment needed within the broader Canadian society because of inadequate urban life skills such as low education and unemployment, together with the lack of culturally appropriate supports may place them at odds with the society. A sense of marginalization, the need to face various structural barriers, and lack of access to systemic culturally appropriate

community support often led First Nations and Métis people to find refuge in addiction and abuses introduced to their society long ago by colonisers. First Nations and Métis community participants discussed the intergenerational impact of addiction and abuse that in many cases reduced their self-confidence and impaired their ability to care for their overall health and well-being. Intersecting with these factors was lack of education about healthy eating and physical activity, information that might have made them less susceptible to developing diabetes.

The situation is even more complex for Métis and non-status Indians who do not have equitable access to services and health benefits available under Aboriginal health rights due to their legal Aboriginal status (the "legal" factor of the "Structural Factors" column in Figure 1). Along with the structural barriers previously described, Métis and non-status Indian people face additional obstacles in their attempts to prevent or manage diabetes. The existence of a pan-Aboriginal approach in health and social services in Canada as well as an overemphasis on First Nations' cultural practices often devalue Métis-specific needs and their cultural and linguistic orientations. Universalising and stereotyping of all First Nations people's needs and entitlement for federally funded health services again obscure the non-status Indians' reality to accessing services in urban centres. The disparity in health status is most evident in the degree to which Métis and non-status Indians suffer from chronic diseases like diabetes.

Health Service Providers and Policy Makers

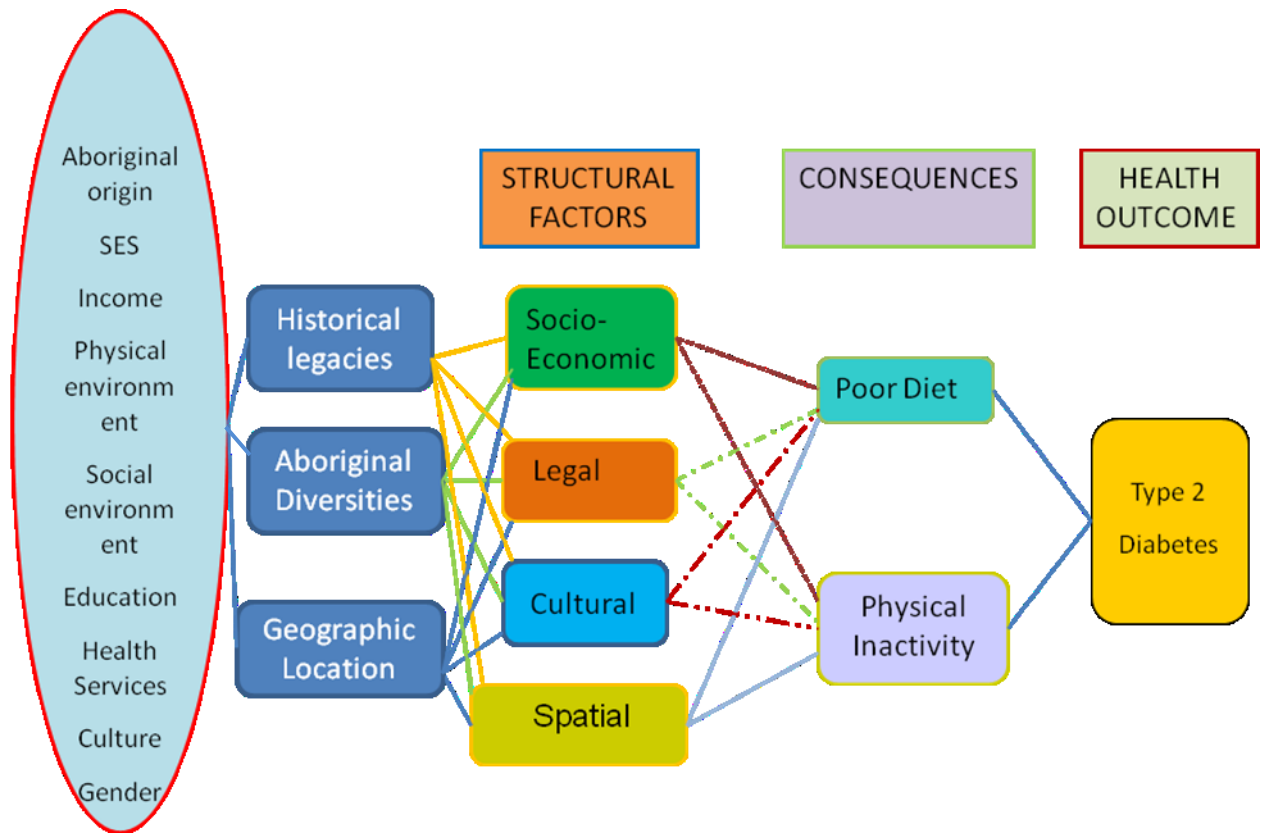
Like First Nations and Métis community participants, health service providers, and policy makers stated that the legacy of colonisation or continued colonialism, such as institutionalized discrimination, stereotyping, residential segregation, and lack of support, are precursors to diabetes ("historical legacies" as a over arching theme in Figure 1). Health service providers stated that policies or plans developed without community engagement often failed to capture the needs of the community and were therefore unlikely to address those needs. Health service providers

admitted that, with some exceptions, poverty and food insecurity are still quite prevalent in urban First Nations and Métis communities, and that it is likely the community members rely on a nutrition-poor diet from fast food centres or from community services. In congruence with the community participants, providers also admitted that it was difficult for their clients as newcomers to the city to find and utilize available community services. Health service providers and policy makers also indicated that the limited availability of a traditional and nutritious diet in urban centres and its high cost made access almost impossible for their clients who consequently became over-reliant on fast food and calorie-dense diets (the "consequences" column in the Figure 1). Policy makers thought that living in poor urban areas affected access to a healthy lifestyle because inadequate urban planning in poor neighbourhoods had resulted in more corner or convenience stores, instead of grocery stores, and lack of physical activity options due to unsafe environments or longer distances from safe physical activity centres or community centres. Overall, health service providers emphasized ways to improve the social determinants of their clients' health; however, many health service providers had the stereotypical notion that all Aboriginal Peoples were uniform in culture and have equitable access to Aboriginal health services and benefits.

The following emerging model builds on the guiding conceptual framework (Appendix 4) of this study and presents the factors or challenges identified by the research participants which increase Métis and First Nations' likelihood of developing T2DM. Themes and sub-themes emerging from this study are congruent with the constructs of intersecting social determinants of health. The generic social determinants of health (PHAC, 2011) are presented in the oval shape below (Figure 1); however, I replaced the term 'ethnicity' with the phrase 'Aboriginal origin.' The three main overarching themes—historical legacies, Aboriginal diversities, and geographic location—that emerged from the participants' narratives are presented in three separate boxes. I placed the intersecting structural factors most often identified by the participants in the next set of boxes.

Then I show how the consequences of these factors are working to impede First Nations and Métis people’s access to diet and physical activity, thereby making them susceptible to diabetes. Overall, this diagram represents the pathways by which overarching structural factors intersect with each other at multiple levels and increase the likelihood of diabetes occurrence among First Nations and Métis people. By extension this model also provides opportunities to address the key contextual structural factors of diabetes incidence for its prevention, care and management.

Figure 1: Structural Factors on T2DM Incidence among First Nations and Métis people



Diabetes Prevention as Perceived by the Research Participants

First Nations and Métis Community Members

The study findings clearly indicate that First Nations and Métis community participants found the existing diabetes prevention strategies as mechanical, dictated only by biomedical prescription, and devoid of appropriate context. Similar to community members' understandings, my survey of existing diabetes prevention programs in the Ottawa area reveals that diabetes prevention programs primarily target the biomedical risk factors of diabetes, and primarily recommend healthy eating and physical activities (See Appendix 20 for detailed information). Although similar to other international studies (Cavanaugh et al, 2008, Judkins, 1978), a sense of inevitability about developing diabetes and its accompanying complications pervaded the various ideas involving prevention and management of diabetes among present study's Métis and First Nations participants, both First Nations and Métis participants identified their community strength, which they think should be used to its fullest potential to strengthen diabetes prevention. These include community gatherings where community members share ideas and learn from each other, a sense of togetherness, and the dedicated staff members at various health and social service organizations within the communities. Aboriginal organizations, such as Native Friendship Centres, Aboriginal health centres, Aboriginal advocacy organizations, and the services available at these centres, were considered significant community strengths as well. First Nations participants indicated that access to various services (both Aboriginal and main stream) in urban locations not available in their rural or reserve home communities could sometimes act as a protective hedge against self-destructive behaviours. Community elders who serve as keepers of traditional knowledge and community role models or champions also contribute significantly as symbols of success in diabetes prevention and management. From participants' narratives it appeared that urban First Nations and Métis people, especially younger people, are learning their traditional

language and becoming engaged in traditional practices through Aboriginal organizations.

Furthermore their desire and efforts to trace their roots—where they are coming from and what they can contribute for the betterment of the next seven generations—was considered particularly important as a means of becoming more resilient in the face of adverse conditions, and was also perceived as a means of strengthening their self-esteem.

There is a demonstrated lack of health human resources of Aboriginal origin in Canada similar to what is the case for Indigenous people in other developed nations (ABS & AIHW, 2008). In New Zealand, for example, the proportion of Maori in the health workforce is less than that of non-Maori (Ratima et al, 2007). Indigenous Peoples express high level of trust and satisfaction of services provided by Indigenous health service providers (Abbott et al, 2007) with this being the case in the present study. At the same time First Nations and Métis participants expressed frustration for not being able to access Aboriginal culturally-specific services when they needed to and displeasure about the nature of service they received in main stream health centres. First Nations and Métis participants identified a range of factors important for diabetes prevention. These include the need for more health service providers of First Nations and Métis descent, more information, more flexible hours of operations for clinics, and access to Aboriginal health services all over the city. A strong need for access to a traditional and nutritious diet at affordable prices, as well as free or low-cost access to physical activities, were identified by the participants. Métis participants demonstrated a particular need for a common platform to get together, share ideas, and learn from other Métis members. Both Métis and non-status First Nations participants expressed their need for equitable access to federally-funded health benefits.

In First Nations and Métis participants' views, prevention strategies grounded in balancing and restoring physical, mental, spiritual, and emotional health could ultimately encourage and motivate people to make positive changes in their lives. For example, physical activities may help

reduce the risk of developing diabetes, but there are many obstacles to being physically active. In this regard, more efforts should be made to develop and maintain physical activity programs that are holistic in approach and adapted to the varying degrees of clients' needs. Developing strong outreach services that include cultural activities, community role models, and Elders is critical in holistic program development. The findings of Keim et al's (2004) study with American Indian population of North East Oklahoma, United States converge with present study's findings about the scope of prevention strategies with positive orientations to reducing the structural barriers and enhancing the social determinants of First Nations and Métis health (the "structural factors" column in the Figure 1). This preventative approach subsequently might offer the hope of reducing disparities in this chronic disease incidence across the diverse Aboriginal population groups. For example, there is a need to reach out to people who are pre-diabetic but with family responsibilities, and diabetic with severe complications, who feel lonely, depressed, or who may need assistance with transportation or personal home support care; stronger partnership with all groups of Aboriginal Peoples and Aboriginal and main-stream health and community agencies must be developed in order for future program development to address education, employment, child care, and health services.

Both groups of community participants recommended the introduction of diabetes education and awareness at a very early age by parents, community role models, and schools; they voiced the need for increased collaboration, communication, and integration of services. Métis participants pointed out that urban health services presently take a pan-Aboriginal approach and overemphasize the First Nations' cultural practices. Instead, preventive health services that are respectful of Aboriginal diversities, inclusive, and flexible in nature can significantly contribute in reducing disparities in diabetes incidence. Other recommendations from community participants include the need for improved public education, awareness, and understanding about Aboriginal

Peoples. There is a need for education and awareness about Aboriginal Peoples, particularly among health service providers and policy makers; likely developing and implementing strategies for education, recruitment, and retention of more health service providers of First Nations and Métis descent would help facilitate this education and awareness. It was also acknowledge that there is a need for increased initiatives and motivations among the First Nations and Métis community members to follow suit on existing and new prevention strategies. Thus community members' needs and hopes for change in the state of diabetes incidence, prevention, care and management helped to build a "shared" analysis (common to all participants) of intersecting contextual factors.

Health Service Providers and Policy Makers

Health service providers talked about a number of barriers to accessing preventive health services. These barriers include the location of service centres, transportation, shortages of health human resources, physical space, funding, and irregularities in health service provisions (as depicted under the column "structural factors" in Figure 1). They also acknowledged the lack of their own knowledge and awareness about the urban First Nations and Métis people is a significant barrier to the provision of meaningful services to their clients. The lack of interest in seeking preventive or management services for diabetes among their First Nations and Métis clients, in particular, and the lack of awareness among pre-diabetics and male clients is another important barrier to becoming successful in diabetes prevention. Health service providers felt that involving pre-diabetics in diabetes prevention activities could significantly reduce the incidence of and complications from diabetes.

Health service providers also talked about a number of important needs/initiatives that could help diabetes prevention. These include the need for increased health human resources, particularly of Aboriginal descent, to generate improved trust between the providers and patients and open-minded, respectful, accommodating, and trustworthy health and social service personnel

to staff these programs. A community approach involving the right people would greatly strengthen efforts to educate and motivate First Nations and Métis people in diabetes prevention and management. The readiness and acceptance for the uptake of diabetes prevention among some First Nations and Métis community members were thought to be great strengths which could facilitate the successful application of preventive approaches. Health service providers of both Aboriginal and non-Aboriginal descent recognized that there is a need first to understand the cultural, socio-economic, and legal diversities among First Nations and Métis people alongside the epidemiological status due to the changing population demography in urban Ontario, and throughout Canada; they also recognized the importance of understanding how these diversities contextualise the people's health in urban sectors.

Policy makers also mentioned a range of factors affecting diabetes prevention, including funding issues related to the shortages in health human resources and program sustainability ("socio-economic" factor under the column "structural factors" in the Figure 1). Another serious obstacle to executing meaningful diabetes prevention strategies was inadequate knowledge about Aboriginal communities among health and social service providers ("cultural" and "socio-economic" factors under the "structural factors" column in the Figure 1). Policy makers acknowledged that policies or strategies developed higher in the decision-making hierarchy as well as funding availability together result in social and health services being offered at the local level. Lack of information and scientific evidence on urban Aboriginal population demography were identified as barriers to understanding and acknowledging Aboriginal sub-population-specific issues in policy formulation, particularly with respect to the Métis population. Lack of formal or informal education among First Nations and Métis participants may also act as barriers to being informed about social and health services available in the locality; in such cases, using those services to improve the social determinants of their clients' health could then become challenging. The narratives not only

demonstrated health service providers and policy makers' increased understanding about the social determinants of First Nations and Métis health, but also captured the challenges they face to operationalize social determinants of health to improve prevention strategies.

Policy makers discussed the measures required to tackle the previously-mentioned barriers to prevention and management. They primarily talked about engagement and inclusion of Aboriginal Peoples of all descents at all levels of government when designing, implementing, and offering services. They also felt that it was important to focus on urban Aboriginal communities and to develop strategies to combat their potentially increased need. Policy makers or planners working at the local level believe that it is equally important to know the qualitative and the quantitative indicators of success when identifying the reach, response, and impact of implemented prevention programs.

Both health service providers and policy makers identify the provision of health services based on the legal status of Aboriginal Peoples as a barrier for diabetes prevention and management ("legal" factor under the column "structural factors" in the Figure 1). Health service providers and policy makers emphasized that it is important to look more broadly at how their clients' lives are organized at the context of available services in the city. They also consider the Aboriginal organizations as a major strength in the community. Aboriginal service organizations, however, take a pan-Aboriginal approach that makes no distinction between First Nations, Métis, and Inuit cultures. It was viewed that, by extending health services for Aboriginal Peoples to all four directions of the city, increased reach, response, and impact on First Nations and Métis health would occur. Along with the need for improved diabetes education and a culturally appropriate service delivery system, a range of community health and other services, if available through Aboriginal or mainstream centres, could increase self-management capacity in programs and services for persons with diabetes or at risk of developing diabetes. Health service providers also

demonstrated the need for services that are more integrated, coordinated, comprehensive, holistic, and responsive to the diverse needs of the First Nations and Métis communities.

Relationship of this study to the social determinants of health and the intersectional approach

My narrative thematic analysis of data draws on the social determinants of health perspective and the intersectional approach in order to address the reasons for inequitable health outcomes of T2DM as perceived by First Nations and Métis people and professionals. Extending beyond the social determinants of health perspective, the intersectional approach helped me to understand how a variety of multi-level interactions among social locations, forces, factors, and power structures shape and influence First Nations and Métis people's lives in a particular geographical setting. The determinants include not only Aboriginal origin, income, literacy, and education but also historical legacies, Aboriginal diversities, and geographic setting. Although socio-economic determinants appeared to be one of the major determinants of health among urban First Nations and Métis community members, careful analysis of data suggested otherwise. In the context of this research, dimensions of marginalization are not only reflected through inadequate material resources but rather through the intersection of multiple factors, such as historical legacies, stereotyping, absence of family support, and pan-Aboriginal nature of policies and services. The intersections of these multiple determinants result in differential vulnerability to disparate health outcomes and poor health status among First Nations and Métis people.

Here, the important underlying concept is that susceptibility to a poorer health outcome does not represent a personal inability on the part of a member of the studied population. Rather, it reflects the intersectional effects of many factors over which individuals have little control and, therefore, indicates that society as a whole has a responsibility to provide unique and appropriate health services for urban First Nations and Métis people. As Olena Hankivsky (2007) indicated,

“Numerous factors may not be modifiable by the individual but instead require attention to the breadth of socioeconomic factors that affect... health” (p. 73). Attention to these intersections helped to better elucidate how various social determinants as contextualised issues related to historical legacies. Aboriginal diversity and geographic location are “multiplicative and simultaneous,” “interlocking and interactive,” co-constituting rather than “additive” factors (Schulz and Mullings, 2006) that influenced the occurrence of type 2 diabetes. Beyond acknowledging complexity, intersectionality analysis also helped in understanding the processes through which various forms of social marginalization shape each other, and provided information on how to contribute to the improvement of preventive interventions that can act on this intersecting marginalization. The individualised nature of existing prevention strategy is unable to address many factors shaping negative health outcomes. The intersectional approach thus challenges existing prevention practices that fail to acknowledge that attention to diversities should shape health service delivery.

The lack of research attention and current misconceptions that view Aboriginal Peoples in Canada as a homogenous population lacking intra-group diversity both act as barriers to efforts aimed at providing appropriate services and thus result in the continued inequities and inequalities faced by First Nations and Métis communities. The conceptual contribution of this thesis is integrating social determinants of health and the intersectional approach that begins with the experiences of groups that occupy multiple social locations and finds approaches and ideas that focus on the complexities rather than the singularity of human experience. Using the intersectional approach as a framework helped in understanding the simultaneity of diversities (historical legacies, socio-economic, legal, and spatial) among First Nations and Métis people. The importance of moving beyond the additive impact of fixed categories of social determinants of health and of focusing on the intersections of determinants expands the scope for understanding inequities in

disease outcome. Thus, how the multiple intersecting determinants are linked to health service resources and policy preferences helps to better explain the factors associated with the structural consequences (health outcomes) for urban First Nations and Métis people.

The major implication of the findings is that the elimination of inequities in diabetes incidence among First Nations and Métis people will require changes not only at the individual and access levels, but also to upstream policy and program development to address diversities in social locations. Despite the potential for informing public policy action to reduce inequities in the social determinants of health, intersectionality remains relatively unemployed in policy discussions (Hankivsky and Cormier, 2009). Any system, such as a health system, is composed of many components that interact in densely connected networks; therefore, addressing food insecurity among First Nations and Métis people through the provision of nutrition supplements for each family will bring relatively little promise for change. Similarly, addressing barriers to access health services primarily through increasing clinic hours will offer solutions to a very small aspect of access in a complex system that is entangled with multiple axes of inequities. As the findings of this thesis demonstrate, these inequities are wholly related to intersections of social determinants of health. These determinants of health include food insecurity caused by inadequate family income, which in turn is implicated by federal health services and benefits that are inequitable for all Aboriginal Peoples and assumes the need for extra money to prevent or manage chronic health problems. Transportation for appointments, money for prescription medicine and diets, expenses, social or family support for child care, and a host of other expenses for a family to prevent or manage a chronic disease are not accounted for in current public policy in Canada. These everyday experiences illustrate how intersectionality operates in the lives of urban First Nations and Métis people. In this respect McGibbon and McPherson's (2011) statement seems pertinent: the existing public service system resists the incorporation of the root and structural causes of inequities in

social determinants of health. First Nations and Métis people's narratives thus illustrate the urgent need for a complex adaptive system approach to policy making in the area of reducing inequities in social determinants of health.

Critical population health issues facing the urban Aboriginal population must be informed by community-informed data to better develop effective intervention strategies that will help eliminate inequities in health outcomes. The intersectional and intellectual nature of this work can expand the field of health inequality research for more fruitful dialogue in social and health sciences. A critical contribution of this study is its ability to foreground inequities in health outcomes as a result of a multitude of factors: historical, socio-economic, cultural, legal, quality of life care factors, and policy factors. Many of these factors fall outside the influence of the health care system but constitute an integral part of conceptualizing First Nations and Métis health in urban settings.

Aboriginal Diversities and Pan-Aboriginalism

The existence of socio-economic, cultural, and legal diversities among First Nations and Métis sub-populations living in the urban centre indicates the limitations of a pan-Aboriginal approach in policy-making and health service delivery that influence diabetes prevention. Health service provisions must be culturally appropriate and sensitive to the diverse social locations, which are to a great extent shaped by differing historical legacies, legal status, and socio-economic backgrounds and spatial contexts of their lives. As discussed above, participants identified that the intersection of socio-economic barriers with legal status and cultural diversities makes it very challenging for them to either prevent or manage diabetes. These barriers are not additive in their function, but intersect with each other to make the situation even further complicated. For example, social barriers, such as institutionalized discrimination (stereotyping, stigmatization, and cultural marginalization as a legacy of colonization, lack of social support in urban centres, stress) can intersect even with high socio-economic background and equitable access to federally funded

health benefits and consequently may make people susceptible to diabetes. Again, the situation for a Métis or non-status First Nations person is more complex. For instance, if a person of a lower socio-economic background is denied access to non-insured health benefits because of his or her legal status, he or she often faces institutionalized and or financial discrimination, limiting their access to health services, which in turn makes him or her susceptible to diabetes.

The existing framework for health services seems limited in its capacity to adequately meet the needs of Métis or First Nations people who are either not registered Indians or not living on a reserve or in traditional territories (Bent et al., 2007). As discussed in the result chapters (Chapters 5, 6 and 7), the wide diversities in Aboriginal health service provision across provinces, due to the involvement of multiple authorities, makes the situation even more challenging. Results revealed that the Métis and other non-status First Nations participants with no access to non-insured health benefits (NIHB) face considerable challenges in preventing diabetes, in delaying its extremities, and in paying for the costs of medications and supplies.

In the beginning of this thesis, I demonstrated how diversity is reflected among urban First Nations and Métis people by providing evidence of existing distinctions in their historical legacies, legal statuses, socio-economic background, and cultural identities. Further to this there are variances in self-perceived identities, for example some Aboriginal individuals may identify themselves as having Aboriginal ancestry but do not associate with any of the three demographic groups (Indians, Métis and Inuit) or others may identify with more than one Aboriginal groups as was case among this study's participants. Similarly Adelson (2005) stated that contemporary urban Aboriginal culture cannot be reduced to single or uniform "Aboriginal" culture because of the heterogeneity in their in cultural identities. Health service provisions and policy needs therefore must reflect the contemporary realities of Aboriginal identities irrespective of whether one wants to keep and display one's Aboriginal identity, or conversely to change or hide it (Berry, 1999). Findings

of the present study suggest that preventive services therefore must build on the urban Aboriginal cultural identity which is comprised of a number of interrelated positive features, including the sense of togetherness, having Elders as keepers of traditional knowledge, resilience, and cultural or linguistic resurgence among Aboriginal youth members. The findings from both the literature review and the exploratory study indicate that the nature of diversities is complex. From the document review (Environics Institute, 2010) we can see that inequities between the socio-economic conditions of First Nations and Métis people and non-Aboriginal people are slowly being reduced. Nevertheless, in this exploratory study we have learned from the perspectives of First Nations, Métis people, and professionals that while some Aboriginal individuals are experiencing economic and educational successes, a larger number of Aboriginal Peoples still live in abject poverty and lack of adequate formal education to ensure basic material resources necessary to lead healthy lives. Evidence also suggests that, although there are positive changes in this urban population group, there is also a strong need for First Nations and Métis families to overcome structural obstacles in order to improve their quality of life in an urban setting. Health services for urban First Nations and Métis people, however, cannot offer a simplistic application of pan-Aboriginal strategies designed to address their health inequities. Initiatives for urban First Nations and Métis people require strategies targeted at the unique and distinct needs of First Nations and Métis residents, regardless of their legal status, cultural diversities, socio-economic backgrounds, and place of residence. Moreover, these initiatives must reflect First Nations and Métis people's strengths and needs by involving them in health planning and policy-making processes.

The findings in this thesis provide evidence of the need for Aboriginal diversity-informed preventive health services for First Nations and Métis people. They also uncover the structural barriers that First Nations and Métis people face in urban areas in accessing health services that acknowledge cultural diversities. There is sufficient reason to believe that vibrant First Nations and

Métis cultures are important elements of the Canadian urban landscape and can provide an important foundation for improving health services to reduce inequities in health. Urban Aboriginal organizations can play a key role in linking with local First Nations and Métis communities for making programs and policies culturally appropriate and real on the ground (Peters, 2006). Besides offering greater scope for providing Aboriginal culturally diverse programs and services, these organizations can play significant roles in developing basic social and structural determinants of health, such as diet, shelter, education, and employment.

Recommendations

Many recommendations emerge from this research; they are discussed throughout this chapter and summarized here. An overarching suggestion weaved throughout all recommendations is that preventive programming aimed at helping First Nations and Métis people to avoid or manage diabetes should be grounded in balancing and restoring the positive aspects of physical, mental, spiritual, and emotional aspects of their health and should also balance their diverse needs, lived realities, and social circumstances with supports and material structures. These perspectives resonate with the views from findings of the studies conducted with Indigenous peoples of other nations where wellness is rooted in the notions of balance among the four components of life and therefore healing must include community, environment and culture based approaches (Mitchell, 2012; Keim et al, 2004). Recommendations laid out in this chapter have the potential to serve as a basis for policy and program development.

Communicating the Knowledge

The findings of this research indicate that improved communication and understanding among community people, health service providers, and policy makers require a common ground to share their concerns, struggles, and successes surrounding susceptibility and prevention of diabetes

and, as well, to build on each other's knowledge and expertise. Collaboration should include partnership with urban First Nations and Métis community members, elders, community champions, role models, and Aboriginal leaders. Moving towards a collaborative model of health service in engagement with community partners could be an option in this direction (Bhattacharyya et al., 2011). Although the potential for a collaborative model of care was not raised in the interviews, analysis of participants' narratives suggests that providers may not be aware of all the structural barriers that their clients are facing and should not go without notice. A collaborative model of health service offers the potential to create trustworthy relationships between provider and clients; define the ethical value of health service that emerges from community wisdom, tradition, and practice; and take into consideration the social and historical realities experienced by Aboriginal Peoples through generations. First Nation and Métis community members' narratives demonstrated that they feel a need for providers who understand the spiritual, cultural, emotional, and socio-economic aspects of diabetes and its prevention. Congruent with the findings of a study (Lautenschlager and Smith, 2006) with inner city American Indian, which illuminated that better understandings among health care providers about the population they serve could increase patient compliance to diabetes-related treatment and care, present study's findings also demonstrate that linking contextual knowledge with evidence-based practice in a collaborative model of care could be a way to respond to diabetes among urban First Nation and Métis people. Since self-determination has been recognized as the way forward to improve health outcomes, the solution needs to come from the communities, and it should not be imposed by outsiders, as has been the case in Aboriginal health (Chandler and Lalonde, 1998). Active engagement of Aboriginal community members and the inclusion of their respective community perspectives and voices in the prevention of chronic diseases, such as diabetes, are critical. The dynamic interplay of community people, providers, and

policy makers can win the battle against systemic factors that shape susceptibility to diabetes among urban First Nations and Métis people.

Engaging the Community

The divergence and convergence in First Nation and Métis community people, health service providers, and policy makers' understandings point out the need to develop culturally appropriate and community-based prevention programs that recognise the diverse realities of urban First Nations and Métis people (Ghosh, 2012b; Ghosh and Spitzer, under review). Significance of engaging Indigenous communities in diabetes prevention and management has also been referred in international studies (Mendenhall et al, 2012) and elsewhere (Ghosh, and Hadi, 2011) where emphasis was placed on tapping community resources that were previously untapped and served to engage Indigenous communities who were living with diabetes to unite in a collective and engaging effort toward health improvement. Literature reveals that reasons behind the success of two well known community-based diabetes prevention programs—Kahnwake Schools Diabetes Prevention Project and Sandy Lake Health and Diabetes Project (SLHDP) in Oji-Cree community of Sandy Lake in Northern Ontario, Canada—lies within the process of enabling people and communities to take control over their health and its determinants (Macaulay et al., 2003). Although there have been localized attempts to address the social determinants of health in diabetes causation (Macaulay et al., 2003), there does not appear to be a systematic integration of culturally-appropriate service provision for urban First Nations and Métis people, particularly in mainstream health centres. First Nations and Métis people equally access mainstream and Aboriginal health services due to various reasons, primarily the lack of Aboriginal culturally appropriate services, distance, transportation, and hours of operation.

The Royal Commission on Aboriginal Peoples (1996) recommended that less emphasis be placed on diabetes as a disease entity and more emphasis be placed on the social, economic, and

political factors that influence health. Policies, health programs, and services that address the broader social contexts of their clients' lives are most likely to be successful. More precisely, the four essential characteristics that the RCAP proposed for a health and healing system for Aboriginal Peoples to embrace over 15 years ago are equally relevant in the present urban Aboriginal health context. First of all, RCAP proposed that a health and healing system must deliver equitable access to health and healing services and in health outcomes among Aboriginal Peoples. The arbitrary regulations and distinctions that have created unequal health service provision that depends on a person's legal status as First Nation (status Indian) and Métis must be removed to give an equal chance for improved health outcome for all Aboriginal Peoples. For example, the Métis participants of this research have expressed their frustrations regarding their denied access to equitable health services. Secondly, restoring health and well-being among Aboriginal Peoples requires services and programs founded on an integrated, holistic view of human health. Both First Nations and Métis community participants of this study expressed that preventive services are narrowly targeted to the disease aspect of diabetes, not to the whole health. It was evident from participants' narratives that problem-specific service models may, for example, offer social assistance for those who are poor and unemployed, but not life skills for education, urban living, or vocation upgrading. Third, the Royal Commission stated that health and healing systems for Aboriginal Peoples must be returned to the control of Aboriginal Peoples. For example, policy maker participants of this study agreed on the fact that top-down decision-making approaches void of appropriate context are not responsive to local conditions, priorities, resources, and necessities, only local people have such knowledge about their community members, and their knowledge is essential to implementing successful programs and services. Literature revealed that control over the design of diabetes prevention led to culturally appropriate material that increased their effectiveness (Macaulay et al., 2003). Both community and professional participants of this study identified the urban Aboriginal

organizations as significant sources of community strength, and as such can play a key role in linking with local First Nation and Métis communities for making diabetes prevention programs and policies culturally appropriate and real on the ground. Lastly, the commission proposes that health and healing for Aboriginal Peoples should have enough flexibility to accommodate differences in culture and community realities, and diversity of local conditions and priorities. Any system that fails to recognize diversity cannot be fully effective to ensure equity in health outcomes. For example, Métis participants of this study expressed over-presence of First Nations worldviews in Aboriginal health services and marginalization of their cultural needs. In that context health services need to be flexible and at the heart of generating well being in any community, so that the needs of everyone seeking care can be met in a culturally-appropriate way.

Finally, there is no doubt that real challenges exist associated with addressing First Nations and Métis diversity in Ottawa and other Canadian cities. They start with the recognition of the socio-economic, cultural, and spatial complexities of First Nations and Métis peoples' location in terms of accessing preventive services for diabetes. Another challenge is how to provide a supportive environment for the propagation and continuation of First Nations and Métis cultures, the foundation for improving the basic social and structural determinants of health. It is also important to recognize the histories of First Nations and Métis people, its legacy in cities, and the need to take these historical legacies into account in health services and policy development.

Policies being Flexible and Inclusive

It is evident from the narratives of First Nations and Métis people, as described in the results chapters (Chapters 5, 6 and 7), that their health would improve with increased consumption of traditional and nutritious foods. Strategies to improve the nutritional status of First Nations and Métis people in urban settings must reflect the realities of their circumstances and the manner in which they access, select, and prepare food. Policy initiatives to help create and sustain supportive

environments are essential to make it easier for First Nations people and their families to increase healthy food intake. To alleviate food insecurity among First Nations people, initiatives from Aboriginal organizations, community organizations, and all levels of government are required to address poverty and food access. Additional policies and programs are needed to encourage and support healthy food intake in urban settings. Analysis of the data reflects that socio-economic determinants not distinctive to the urban Aboriginal population require optimal public policy approaches that can enable access to a healthy diet for everyone. In this respect, Ontario's recent discussion of a reform of its social assistance program could include a larger structural change and a boost for welfare rates for underprivileged populations.

First Nations and Métis participants' narratives captured in this study indicate that diabetes achieved a social meaning for them based on how they understand this illness and its causal factors. Although these findings do not invalidate the biomedical perspectives, they demonstrate that disease and illness are as much social products as medical or scientific ones. As such, the social significance of a 'disease' can broaden and enrich policy decisions by going beyond the deterministic logic of biomedical science. Any policy response to a problem is determined by how the problem is defined or framed in the first place. For example, when medical perspectives increasingly define diabetes as a lifestyle related disease, policy focus on solutions, such as, promotion for healthy eating, enhanced physical activities (rather than examining the availability of healthy foods in the neighbourhoods; socio-economic status of the population affected and their affordability to access healthy food, planned physical activities; and the role of media in product promotion, etc) often fail to address the social and non-medical determinants of health. Findings of this research, however demonstrates that policy makers participated in this research hold both biomedical and intersecting social determinants of health views about diabetes causation. Although it seems they face challenges to address the social determinants of population health within their scope of practice.

They have also acknowledged the policy limitations to address and respond to the local needs, as these policies are generally developed higher up in the policy making hierarchy without having appropriate community connection. It is apparent from their narratives that front line and senior policy makers participated in this study are stuck and disempowered within the scope of their institutional practice in spite of having willingness to make changes.

This investigation also reveals that despite the progress made to date to improve inequities in health outcomes among Aboriginal Peoples, there is still much work to be done in order to better understand how the policy affects within and between diversities of these population groups. To be more specific, this work must identify who is benefiting and who is excluded from health policy, program and service goals, priorities and related resource allocation and the reasons for these distinctions. Policies, particularly funding for programmes, should provide increased flexibility to enable programs to respond to the diverse cultural, legal, socio-economic, and spatial needs of urban First Nations and Métis people.

Targeting the Intersecting Determinants

The current poor health status of many Aboriginal Peoples in Canada is a national disgrace, especially since Canada has an international reputation for advocating equities in health services. There have been many tireless efforts to reverse the health inequities experienced by Indigenous Peoples; however, despite such efforts, inequities still persist. Effective redress of the current situation will not occur unless there is a concerted focus on the fundamental intersecting social determinants of health. This requires a shift from reactionary policy-making and program spending to a more complex, pre-planned, targeted, intersectoral action. There is also a need to move away from stigmatized understandings of First Nations and Métis people as 'vulnerable populations' or population groups requiring additional care and service. Change must start from an understanding that there is no 'one size fits all' approach in providing preventive services. In this respect, policy

makers need to link the individual-level factors to the institutional systems that shape them, to consider power relationships, and to promote the development of more equitable policy. Health services and policy makers also need to meet Aboriginal community peoples' diverse needs; this requires attention to the way systems of domination, such as colonialism, socio-economic status, and legal status shape access to care.

Analysis of primary and secondary data as well as an inventory of existing diabetes prevention strategies (Appendix 21) further reaffirms that prevention of T2DM is still confined within the biomedical regimen of screening for diabetes risk factors, diabetes education, and lifestyle modification. Previous discussion strongly indicates that the current challenge in the field is to operationalize the concept of social determinants of First Nations and Métis health for diabetes prevention, particularly for those who are living in urban areas. It is clear that meaningful and culturally-appropriate translations of knowledge surrounding diabetes causation and prevention requires that First Nations and Métis people, health service providers (HSPs), and policy makers understand and communicate each other's perspectives and work in partnership. T2DM is a complex health condition, so there is no single solution for this health issue, and likely its interventions need to address multiple determining factors by integrating multiple players and organizations. This integration also calls for a system-oriented solution by bringing in improvements in local public health services.

Recommendations emerging from this study are summarised below:

- Diabetes prevention must address
 - The cultural diversities that exist within and between First Nations and Métis populations
 - Determinants of urban First Nations and Métis population health
- Diabetes prevention should be
 - More accessible for status and non-status First Nations (non-status Indians) and Métis population

- More inclusive but diverse
- Diabetes prevention must be enhanced by
 - Improved communication among community peoples, health service providers and policy makers
 - Identifying local stakeholders and players
 - Educating health service providers of diverse realities of urban FN and Métis clients
 - Intersectoral collaboration among different level of governments and non-governmental and community-based organizations
 - Improved and flexible funding options to run the prevention programs
- Diabetes prevention needs to be
 - First Nations and Métis population specific
 - First Nation and Métis perspectives need to be integrated into the existing pan-Aboriginal services
- Diabetes prevention should be based on active engagement with community partners
 - Coordinated intervention
 - Community intervention, not only individual or disease oriented
 - Integration of role models of community youth, Elders, champions, family members, and leaders to work together.
 - Community needs and strengths
- Good preventive services must be
 - Culturally appropriate services at main stream and Aboriginal health services
 - Provided by more health service providers of Aboriginal backgrounds
 - Expanded at four directions (e.g. satellite, or expansion in mainstream health centres)
 - Sharing information among the fellow Aboriginal and mainstream health centres
 - Led by urban First Nations and Métis people and professionals of Aboriginal origin through Aboriginal organizations

Policy context, implications and imperatives

The policy implication of this study's findings is profound. Most fundamentally this study's findings demonstrate that achieving a significant improvement in urban First Nation and Métis

health, or more generally in Aboriginal health is a multi-sectoral challenge. There is strong evidence that good health services are making a difference. But health services alone are not enough. What is perfectly apparent from this study is that improved services will only take us a certain distance. More fundamental, or structural, changes are also vital. It is evident that addressing bio-medical risk factors of diabetes is essential but insufficient to close the gap. Moreover addressing social determinants of urban First Nations and Métis health is also essential but insufficient to close the gap. Addressing intersecting contextual determinants of health is required to close the gap in inequities in health outcome across the Aboriginal population groups. Holistic program planning is needed. Preventive services for diabetes needs to be holistic that aims to restore the balance between physical, mental, emotional, and spiritual health and wellbeing. The existing health care system tends to compartmentalize care and management focusing mostly on the physical (blood sugar, weight, medication) aspect of health and sending patients elsewhere for emotional mental health concerns. Findings of this research indicate emotional challenges are barriers to diabetes prevention and management and must be part of a holistic approach. As this study findings indicate, there is a need to address the sources of structural barriers and associated inequities. There is need to address the ways in which Aboriginal Peoples are marginalized in present society. This will not be possible through victim blaming approach by suggesting to eat healthy, exercise more and drink less. However there are agreed upon personal responsibility at the individual level as acknowledged by many of the Métis and First Nation community participants of this study. But findings of this study indicate that individual responsibility and institutional or structural factors are interactive. Therefore losing sight of these contextual factors is to deny the lived realities of urban First Nations and Métis people and eventually will help perpetuate the problem. Consequently there are needs for multi-level policy actions for urgent reform across a very broad front to bring decisive change.

Half-hearted, piecemeal and reactionary policy interventions such as those that now prevail at all levels of government to handle Aboriginal health issues can make too little overall difference.

This study indicates that at the micro or local level there is a great need for generating population group-specific evidence. More importantly the need is to generate both qualitative and quantitative data for Métis and non-status Indians living in urban areas. There is a great need for health service providers to understand the lived realities of Aboriginal Peoples they serve in urban areas. Particularly, an increased understanding among health service providers about variations in legal Aboriginal status and its implications for their Aboriginal clients access to health services is warranted. Moreover, increased attention should be paid to the cultural diversities across the urban Aboriginal groups while planning and offering culturally-appropriate services. Particular attention is needed to acknowledge Métis culture in main stream as well as in Aboriginal health services. Inequities that local urban Aboriginal Peoples face in accessing culturally appropriate services cannot be reduced simply through encouraging involvement in Aboriginal community members alone. Engaging local urban Aboriginal community groups and incorporating their knowledge in health and social service planning, and provision should be considered as part of the strategy to address inequities in health outcome. At the local level there is a great need to enhance service integration, a specific need is to better improve social services as well as to integrate social services with health services for Aboriginal Peoples.

At the macro level, challenges to policy implications most significantly relate to demographic and jurisdictional characteristics of urban Aboriginal Peoples. As noted previously, today Aboriginal Peoples exhibits an increased living in urban centres, and the growth of this population is expected to continue (Environics Institute, 2010). More policy emphasis should be placed on urban Aboriginal health. There is an urgent need to re-allocate budgetary contribution for Aboriginal Peoples of all descent living in urban areas. For example, the Federal Interlocutor for

Métis and non-status Indians notes that despite over half of the Aboriginal Peoples residing in urban areas, almost 90% of federal funding for Aboriginal specific programs and services is allocated for on-reserve status-Indians or Inuit in their traditional territories only (Place, 2012). Therefore particular attention should be paid towards acknowledging the rights and needs of non-status Indians and Métis people living in urban areas. At the very basic level, policy on health service delivery in urban areas must take into account the increasing trend of population growth among Aboriginal Peoples in urban sectors to ensure that adequate, accessible and safe health care is provided (Place, 2012). The result of jurisdictional wrangling do not give off-reserve people access to range of federally provided health services that First Nations living on-reserve and Inuit living in their communities receive (Browne et al, 2009). Eligibility for specific federal programs and services for Aboriginal Peoples is determined by complex interplay of status, residency, treaty and provincial and federal legislation (Browne et al, 2009). Whereas provincial governments largely offer services to them that are available to general population (Longfield and Godfrey, 2003). There is an urgent need to restructure the current jurisdictional and policy framework that presently determines federal governments responsibility strictly to First Nations people living on reserve. Particularly in the area of NIHB (Non Insured Health Benefit) and Métis and non-status Indians health rights, there is a great need to moving beyond status-based restrictions determined by past policies and recognizing that present Aboriginal geographic identities, which must be reflected in federal initiatives. There is a further need to strengthen the federal role by undertaking intersectoral collaboration within the federal government departments as well as with different levels of governments (federal, provincial, territorial/ local) to facilitate intergovernmental mechanisms to address policy and program concerns of urban Aboriginal Peoples. This intersectoral collaboration must extend towards engaging non-governmental organizations, Aboriginal advocacy organizations and private sectors (for example, pharmacies and grocery stores). This recommendation for

intersectoral collaboration aligns very well with the characteristics of community-based program component of Aboriginal Diabetes Initiative (ADI) for diabetes prevention. But what is missing and important to consider while applying this community-based component is to pay better attention to the urban Aboriginal Peoples. This study's findings indicate the need to employ intersectional approach in making and analysing policies to understand and address the role of intersecting determinants that contextualise urban Aboriginal health at the micro or local level. Particular policy attention should be paid to the recruitment and retention of health service providers of Aboriginal origin in urban sectors.

While there are imperatives for change, there can be considerable barriers at the program and system levels. As reflected in policy makers' narratives, there is a lack of coordination among the government departments and this siloed approach as well as lack of use of community engagement model act as significant barriers to effective program implementation and sustainability of interventions. Criteria for program funding competitions need to be changed and streamlined considering the requirements of local Aboriginal organizations as indicated by the health service providers, because of their implications for program sustainability and retention of service providers or employees at the local organization level. Similar to the reforms made in funding systems in Australia for Aboriginal and Torres Strait Islander peoples in order to strengthen the health initiatives of community-controlled organizations (NHHRC, 2009), nature of funding changes for urban Aboriginal people of present setting must encourage genuine partnerships with urban Aboriginal organizations to identify the specific health and social needs required for pre-diabetic and diabetic persons. As such there is a potential for the current phase of Aboriginal Diabetes Initiative to be further developed to focus on Métis and non-status Indian people living in urban areas. Despite the efforts taken by government to prevent diabetes incidence and its management, the findings of this study indicate the need to learn from local urban First Nations and

Métis, or more broadly from urban Aboriginal community members to make a genuine difference. The key is to implement policies that influence health services that take account for intersecting determinants of health among urban Aboriginal Peoples in ways that include and work with First Nations and Métis people (individual level actions), which requires contextual macro-level policy action as well as community-sensitive participation.

Limitations and Strengths

This study could not engage the local Inuit population due to their lack of response during the community consultation phase. Type 2 diabetes among the Inuit population is on the rise, according to recent statistics. According to the 2006 census, there are 600 Inuit people living in the Ottawa-Gatineau area (Champlain LHIN, 2008). However, from the estimate of a local Inuit organization, there are over 1500 Inuit in Ottawa (Tungasuvvingat Inuit, 2012). This means that this research leaves out the perspectives of an urban Indigenous group that is increasingly urban and that constitutes a share of this geographic setting's Aboriginal population, which would have also made our understanding of susceptibility to diabetes more nuanced and complex. I was not able to pursue the necessary social connections and at the stage of the participants' recruitment, financial resources restricted my ability to wait further for Inuit participation. Capturing their perceptions would have made this study's findings more complete. This has become a priority direction for future research. Identifying their perceptions in future studies will aid in developing holistic diabetes prevention strategies for all Aboriginal groups.

A further limitation is that participants of this study came from a single urban location; therefore, the study may lack the potential to capture geographical variations across other cities within the province or across the country. In future studies, recruitment of research participants from multiple cities would be desirable. In spite of repeated attempts, I was also not able to gather local public health professionals' perspectives of diabetes in urban Aboriginal Peoples' contexts.

Unfortunately the person responsible for the Aboriginal file at the Ottawa Public Health informed me that she did not get permission to participate in the interview. I attempted to overcome this limitation, however, by scanning through local public health documents and discussing with local public health professionals at workshops and meetings.

Despite these limitations, the congruency of the data to other studies of perceptions surrounding diabetes among Aboriginal Peoples provides support for the findings of this study. Though results similar to this study have been reported (Gregory et al., 1999, Heuer and Lausch, 2006), the majority were derived from on-reserve or rural-living Aboriginal population groups. This research is a first attempt to bring together interrelationships of the three groups' (First Nations and Métis community people, health service providers and policy makers) in a single study and giving voice to their perceptions with reference to diabetes, and its prevention and management in urban context. Because protocol for this exploratory research respects Aboriginal diversities, it presents Métis and First Nations peoples' findings distinctively by moving beyond the pan-Aboriginalism, as was also the choice of partner organizations. This diversity-informed approach informs health service providers and policy makers in a new way about these population sub-groups' specific barriers and needs; as well adds a new perspective in population health field by studying inter and intra group diversity within and between Aboriginal population groups. Previous research did not employ an intersectional approach to understanding the social determinants of diabetes. By taking a critical view this study highlights the limitations of conceptual models and frameworks used in population health field and employs intersectional approach above and beyond social determinants of health approach. This bridging between intersectional and social determinants of health approaches thus helps in understanding the nuances of multiple marginalization of First Nations and Métis lives in urban contexts and their likelihood of developing diabetes. However, each new study presents new unanswered questions, indicating a need for further investigation.

Future Directions

Addressing Diversities

The findings of this research confirm that there is considerable recognition among both health service providers and policy makers of diversities among Aboriginal Peoples. Universalizing and ‘pan-Aboriginal’ discourses in research and practices have narrowly generalized First Nations and Métis identity in policy making (Maxwell, 2011); and health service programs blur the distinct geographical, cultural, historical, linguistic, and socio-economic experience of particular Aboriginal groups. These concurrent phenomena questions about balancing emerging urban Aboriginalities and developing broadly inclusive services realities in future research and practice.

Aboriginal Population-Specific Approaches

As mentioned before, this research also reinforces the need for Aboriginal population-specific prevention and service delivery that recognizes the diverse needs of First Nations and Métis people who could be diabetic or non-diabetic. To be more specific, the need is for Métis-specific and First Nations-specific programs and services (Ghosh and Gomes, 2011). Anderson et al. (2003) indicate that Aboriginal Peoples need “culturally relevant good preventive services.” Similarly, the findings of this research indicate that health services for Aboriginal Peoples do not adequately address urban Métis peoples’ needs and more often focus on First Nations’ needs and priorities. There is a need to further explore Aboriginal population specific needs in future research and policy practice.

Generating Local Population-specific Health Data

Findings of this study show that there is a general lack of Aboriginal population-specific data in urban areas, which hinders the provision of targeted services. Future research and policy attention are needed to generate evidence for local population specific data, particularly in respect to the reach, response, quality, and impact of the existing services.

Prioritizing Urban Aboriginal Context

Findings of this research and previous studies identify the diverse contextual complexities that determine First Nations and Métis health outcomes. Future research and policy attention are needed to generate evidence for the further exploration of urban Aboriginal communities.

Generating Responsive Health Prevention Tools

The need for tools and messaging for diabetes education also requires strengthening in terms of diabetes prevention, as presented by the findings of this study. Health service providers and community members stated the need for making better use of health promotion or prevention tools such as the 'Canada Food Guide.' Their perspectives point to the need for developing improved versions of these prevention tools to better reflect the needs of Aboriginal diversities and to respond to their local needs. Future policy and research endeavours in this direction are warranted.

Identifying Qualitative Indicators of Programs and Services

The findings of this study indicate the increased understandings of value of qualitative indicators of success among health service providers and policy makers. They acknowledge that qualitative success indicators are equally important to monitor, implement, assess, and evaluate the overall success of preventive programmes or initiatives. More research and practice is required to develop and implement qualitative success indicators specific to First Nations and Métis communities, which should be refined and adopted in a participatory manner.

Integrating Intersectionality

Despite the potential for informing public policy action to reduce inequities in the social determinants of health, intersectionality remains relatively unemployed in policy research and practice. Findings of this study demonstrate the future need for integrating intersectional

approaches in policy research and implementation to tackle health inequities when dealing with marginalized or priority populations.

Intersectional approach in Aboriginal health research is yet to be fully applied. Findings of this research indicate that the application of intersectionality promises to explicate the multiple health and social identities of Aboriginal Peoples to health services as it works to create new knowledge that can be translated into practice to improve health service delivery.

Providing Policy Directions

There is a demonstrated policy need to address the broad and complex variety of predisposing urban factors including employment, housing, safety, and security to language and cultural barriers in order to narrow the gap in communication between community members and professionals and ultimately to eliminate inequities in urban First Nations and Métis health outcomes.

Conclusion

I believe there are several lessons to draw from this study that could benefit future research focusing on urban First Nations and Métis health problems. The first relates to methodological orientation and protocols followed while investigating the research questions. This study commenced with the fundamental premise that the views, perspectives, and experiences of the First Nations and Métis people living in this eastern Ontario city of Ottawa had to be built into the research process from its inception. This 'building in' was achieved by ensuring that First Nations and Métis people living in the City of Ottawa were engaged as Aboriginal community advisory circle members to oversee the conceptualization and investigation of the research questions.

As mentioned in Chapters 3 and 4, a form of community-based research was used to generate a shared understanding and commitment to achieve the research objectives. This process

allowed the mutual exchange of different forms of expertise between the community advisory circle members, my supervisors, and myself to occur on an ongoing basis. In addition, I received continued guidance and advice from my thesis advisory committee members during the research process. The meetings and continued communication with the Aboriginal Community Advisory Circle (ACAC) members provided a forum in which I learned about the details of First Nations and Métis society and culture, which enabled me to formulate and enact a research process from the mutual standpoints of First Nations and Métis people and academia.

At the conceptual level, this thesis demonstrates how linkage between intersectionality theory and social determinants of health approach can help to address the social determinants of inequities that drive disparities in First Nations and Métis health outcomes. To be specific, social determinants of health constructs, as one of the conceptual frameworks of this study, presented generic determinants of health, whereas the intersectional approach offered more nuanced and complex explanations of the local context that predispose First Nations and Métis people's likelihood of developing diabetes. For instance, social determinants of health approach helps to understand how education, income, health services and other determinants influence First Nations and Métis peoples' likelihood of developing diabetes; intersectionality, however, informs us whether education, health services, nutritious diets, or physical activities are accessible to the research participants, or even how they can access community services or diabetes education services. Moreover, the intersectional approach helps us to understand how these social realities are lived to varying degrees as embodied and individualized realities, particularly because of the differential and complex nature of marginalization experienced by different Aboriginal population groups. Findings of this thesis demonstrate that intersectionality theory and social determinants of health can inform policy for progressive change.

Finally, the findings of this research suggest that policies and health services must attend to the socio-economic, spatial, legal, and cultural diversity contained under the rubric of Métis or First Nations people. They must attend to food and dietary requirements, including access to traditional foods; lack of a social network and adequate family support; issues of stigmatization and self-identity; supply of more health human resources of Aboriginal descent; improved policy and program focus on Indigenous People living in urban areas; and development and implementation of sustainable funding with off-reserve and urban Indigenous communities. It is also important to understand that underlying problems of communication between community people and providers as identified in literature (Kaplan et al., 1989; Stewart, 1995) not only present obstacles to mutual understanding, but also impose limits on the decision-making and “empowerment” in program and policy formulation influencing health services that Indigenous People desire. Therefore, as a broad policy issue, we feel that there is a grave need for greater emphasis on the education and training of health service providers that focuses on the diverse knowledge, understanding, experiences, and needs of urban First Nations and Métis People in relation to diabetes and its prevention.

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Appendix 1: Glossary of Terms

Aboriginal Peoples

The Canadian Constitution Act, 1982, Section 35.1 states that the Aboriginal Peoples of Canada are First Nations, Métis and Inuit people. In Canada, the phrase 'Aboriginal Peoples' refers to "organic, political and cultural entities that stem historically from the original people in North America, rather than collections of individuals united by so-called 'racial' characteristics" (Royal Commission on Aboriginal People, 1996). The terms 'Indigenous Peoples' and 'Aboriginal Peoples' are used interchangeably in this thesis to collectively denote the first people of Canada.

Aboriginal Health Centres

Aboriginal health centres in Ontario are designed around the Aboriginal belief that mind, body, spirit and emotions must be cared for. In 1994, the Province of Ontario created ten specialized Aboriginal-led culturally based health centres called Aboriginal Health Access Centres (AHACs).

Biomedicine

Biomedicine views disease as having a unique physical cause within the body, whether it is a microorganism causing infection, a growth of malignant cells or a failure of an organ due to repeated insults (such as alcohol consumption). Biomedicine uses a well-developed and widely applicable set of diagnostic criteria to describe a large number of disease states.

Disease

Disease is the health care professional's biomedical understanding of afflictions (Kleinman, 1988).

Explanatory Model

"Explanatory models are the notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process" (Kleinman, 1980, p. 105).

First Nations

A 'First Nations' person is defined as an individual who self-identifies himself or herself as a member of the First Nations community of people in Canada. In Canada, the term 'First Nations' refers to people of Native American origin who were the first occupants of the land, and to their descendants (Wotherspoon and Satzewich, 1993).

Health Equity

The concept of 'health equity' refers the absence of unjust, unfair and avoidable systemic social inequalities (class, gender, occupation etc) in health (or in the major social determinants of health) both within and between sub-populations (Braveman and Gruskin, 2003; Whitehead, 1985).

Health Service Providers

Health service providers are the physicians, nurses, dieticians, diabetes prevention co-ordinators, and diabetes educators who routinely interact with Aboriginal clients with diabetes or at risk of developing diabetes.

Illness

Illness is defined as the subjective experience of symptoms and suffering (Kleinman, 1988).

Indigenous Peoples

“Indigenous communities, people and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as people, in accordance with their own cultural patterns, social institutions and legal systems” (United Nations, 2004).

Indian Act

The 1876 *Indian Act* is the principal federal statute dealing with Indian status, local government and the management of reserve land and communal monies (Sawchuk, 2001). The *Indian Act* sets out the requirements for determining who has access to federally funded health services and benefits.

Intersectional Approach

As a conceptual framework, the intersectional approach helps in understanding how marginalization on multiple axes may function in a manner that is more than just additive (Hankivsky and Christoffersen, 2008). In this research, an intersectional approach helped me to understand the simultaneity of diversities among First Nations and Métis people—the forces, factors and power structures that shaped and influenced their health and well-being (Hankivsky, 2012). The intersectional framework thus recognizes the plethora of structural and social factors that affect health; it does not automatically give primacy to any one factor (e.g. socio-economic status) in analysing the health of people or populations.

Marginalized Populations

This term refers to communities of people who are systematically excluded from meaningful participation in economic, social, political, cultural and other forms of human activities in Canada and are thus denied the opportunity to fulfil their potential.

Métis

Métis refers to the mixed-blood descendents of French, Scottish, and English men and First Nations women (Sawchuk, 2001).

Methodological Map

A methodological map describes the process undertaken during data analysis.

Narrative

In this study, Riessman’s definition of narrative applies, “... a brief bounded segment of interview text, rather than [an] extended biographical account.” Riessman (1993) views narrative as a means of gaining access to experience; since we cannot live the experiences of another person, we are actually getting a representation of those experiences through their re-telling of them.

Narrative Analysis

Narrative analysis in the human sciences refers to a family of analytic approaches to diverse kinds of texts that have in common a storied form (Riessman, 2008).

Non-Status Indian First Nations people not registered with the federal government under the *Indian Act* are called non-status Indian people (INAC, 2010).

Policy Makers

Policy makers include federal, provincial and local government and non-government officials who in their respective domains hold the decision-making power that informs and implements the strategies related to diabetes prevention among urban Aboriginal Peoples.

Population health intervention

Health intervention or to be more specific population health refers to upstream policy and program actions that operate within and outside of the health sector and act on various social determinants of health to reduce inequities in health outcome and have potential to improve health at the collective (or population) level (Ghosh et al., 2011).

Prevention

The World Health Organization classifies diabetes prevention into three levels: primary, secondary and tertiary. Primary prevention includes activities aimed at preventing diabetes from occurring in susceptible populations or individuals; secondary prevention includes early diagnosis and effective control of diabetes in order to avoid or delay the progress of the disease; and tertiary prevention includes measures taken to prevent complications and disabilities due to diabetes (WHO, 1994). In this research, by diabetes prevention I mean primarily the actions necessary to halt the incidence of diabetes as well as its complications.

Preventive Health Services

Preventive health services include services designed to enhance the health status of the population. Typical preventive health services include screening activities, vaccination campaigns (OECD, 2000).

Social Determinants of Health Approach

A social determinant approach means considering the structures and systems within which people are born, grow, work and live as opposed to comprehending their health separately from their social-cultural, political and historical contexts (Marmot et al., 2008).

Social Location

Refers to the social realities, in various forms and degrees, that are lived differently as individual realities by peoples based on their class, race, gender, age, socio-economic and legal status, religious orientation, and geographic location.

Status Indian

First Nations people in Canada registered under the *Indian Act* can be referred to as either registered or status Indian people (INAC, 2010).

Thematic Narrative Analysis

Thematic narrative analysis relies on categorizing narrative accounts or aspects of narrative accounts that are being told. According to Riessman (1993, 2008), in this form of narrative analysis, emphasis is on the content of a text, on what is said rather than how it is said. In this research, I employed thematic narrative analysis and my focus was on the content of the narratives for the interpretation of data.

Type 2 diabetes

Type 2 diabetes (T2DM) is caused by the body's ineffective use of insulin, a hormone that controls the amount of sugar in the blood. Ineffective use of insulin leads to an increased concentration of glucose in the blood (hyperglycaemia) (World Health Organization [WHO], 2011).

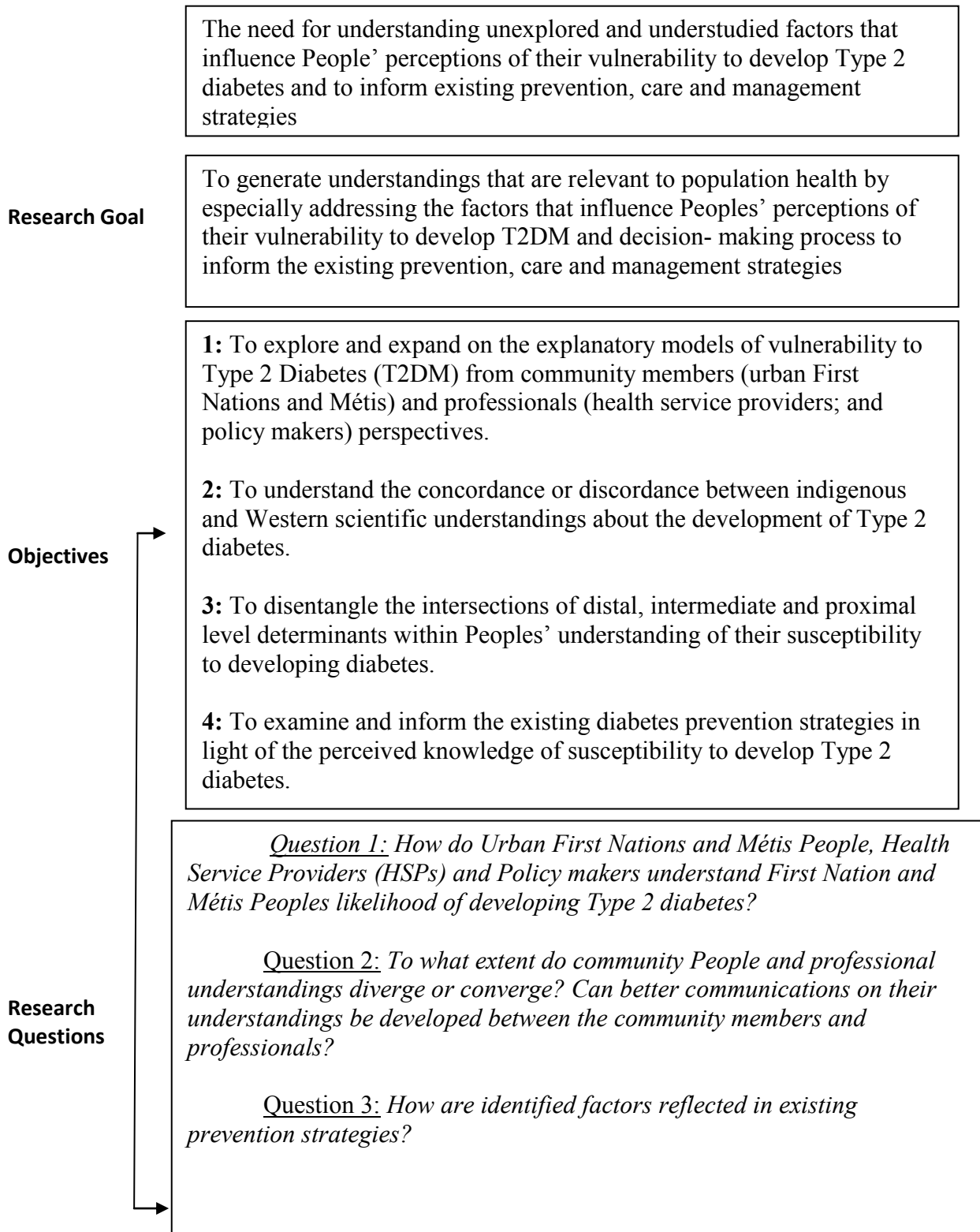
Unit of Analysis

Unit of analysis represents a researcher's focus in each investigation (Riessman, 2008). My unit of analysis for this research topic includes subjective experiences of the genesis of an illness (diabetes) and the initiatives or attempts to prevent or manage the illness (diabetes) as indicated in the personal narratives.

Urban First Nations and Métis Community

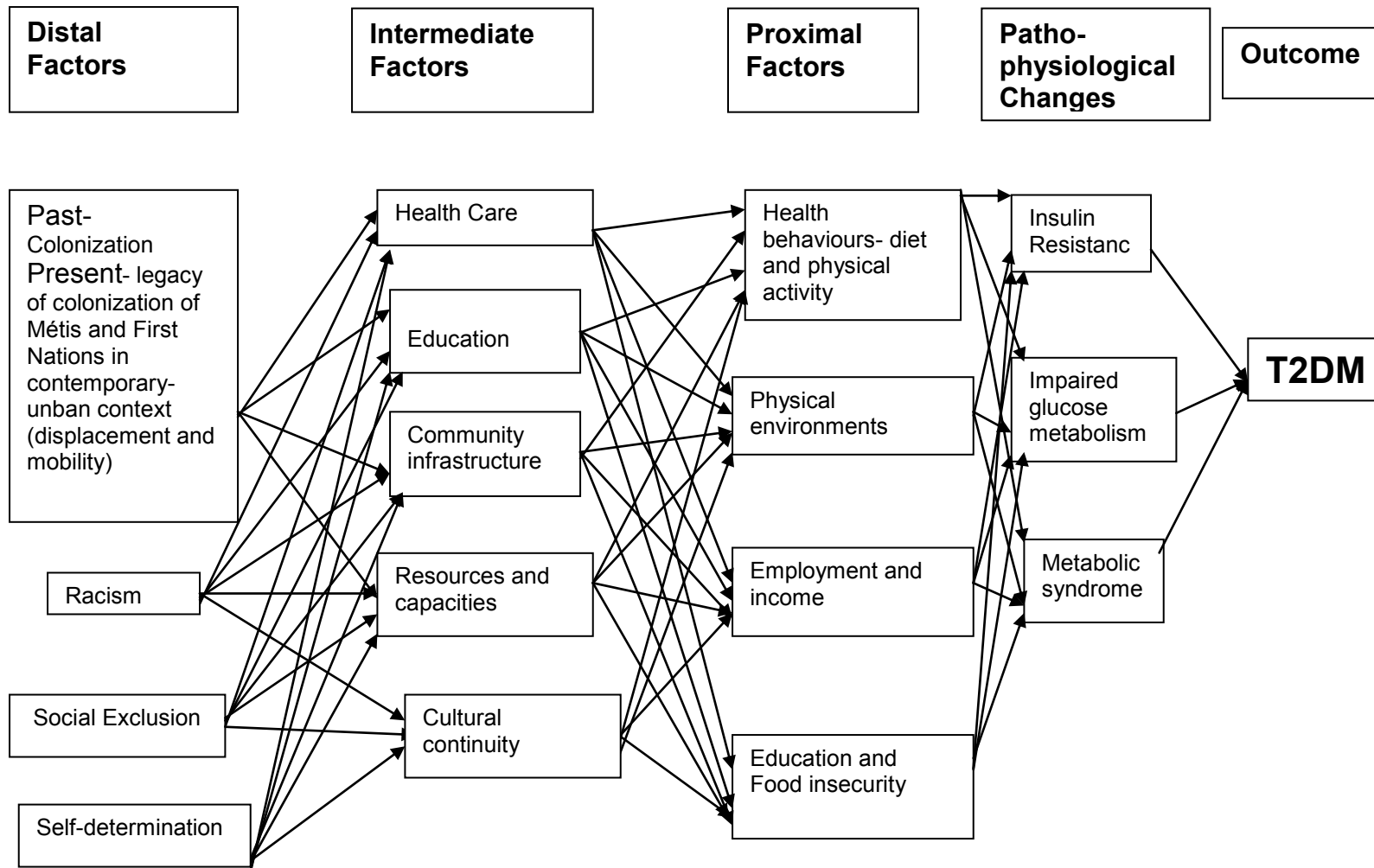
In this research, the urban First Nations and Métis community represents the clientele of local Aboriginal service organizations or users of Aboriginal services. Urban Aboriginal communities, in many cases, are shaped by features of the particular city they are residing in, primarily the relative size of the Aboriginal population, the nature of the Aboriginal population dispersion over the city, and the nature and physical location of the Aboriginal organizations in these cities (Environics Institute, 2010).

Appendix 2: Study Rationale



Appendix 3: Social Determinants of incidence of Type 2 Diabetes among urban Aboriginal Peoples

Adapted from Loppie-Reading and Wein, 2009; Schulz et al., 2005 and WHO, 2003



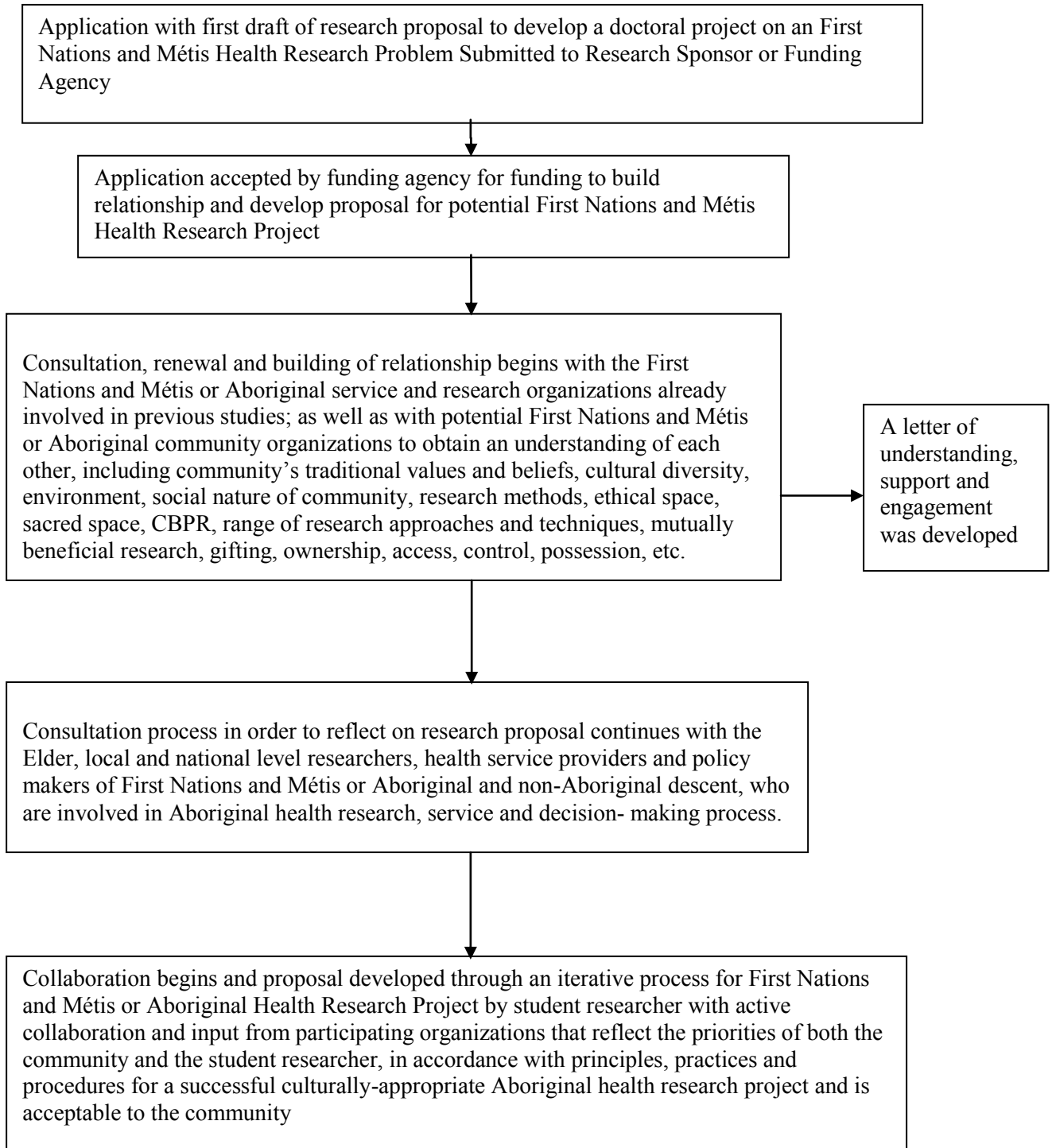
Appendix 4: Continuum in community- engaged research

Community-based research				
Research with the community	→ Present research →			CBPR
Defining the problem	Researcher Identifies problem	Research in/with the community	Community works with researcher to identify problem	Community Identifies problem
Engagement	Research in the community	Research with community as partner	Research with community as full partner	Research with community as full partner
Role of the People	People as participants	People as participants	People as participants and collaborators	People as participants and collaborators
Role of the community	Community organizers may help, recruit participants	Community organizers may help, recruit participants and serve on Advisory board	Community organizers may help, recruit participants and serve on Advisory board	Community organizations are partners with researchers
Role of the researcher	Collaborators	collaborators	Collaborator and takes mutually agreeable decision	Equal collaborator and equal decision- making capacity
Capacity development and learning process	Researcher gain skills and some awareness of helping community develop skills	Researcher gain skills and some awareness of helping community develop skills	Researcher gain skills and work with the community to help build community capacity particularly for data collection	Researcher and community work together to help build community capacity
Ownership, control, access and possession/ stewardship of data	Researcher own data, control research, and decide about use and dissemination of research results; community representatives may help make minor decisions	Researcher own data, control research, and decide about use and dissemination of research results; community representatives may help make minor decisions	Researcher owns raw data, but shares and verifies clean data with community, use and disseminate data based on mutual decision	Researcher and community equally own, control, share, use and disseminate data

Adapted from Practicing Community Engaged Research by McDonald, Anne Mary (2009). Retrieved from <http://www.dtmi.duke.edu/dccr/community-linked-research/>

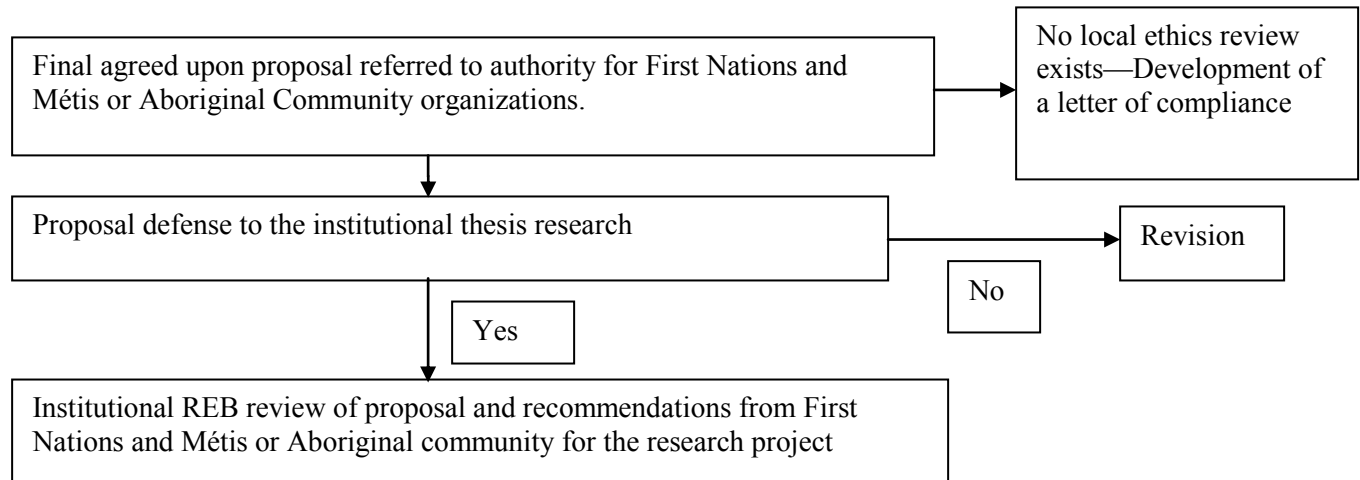
Appendix 5: Protocol for this Community-Based Research Project

Step 1: Partnership Development

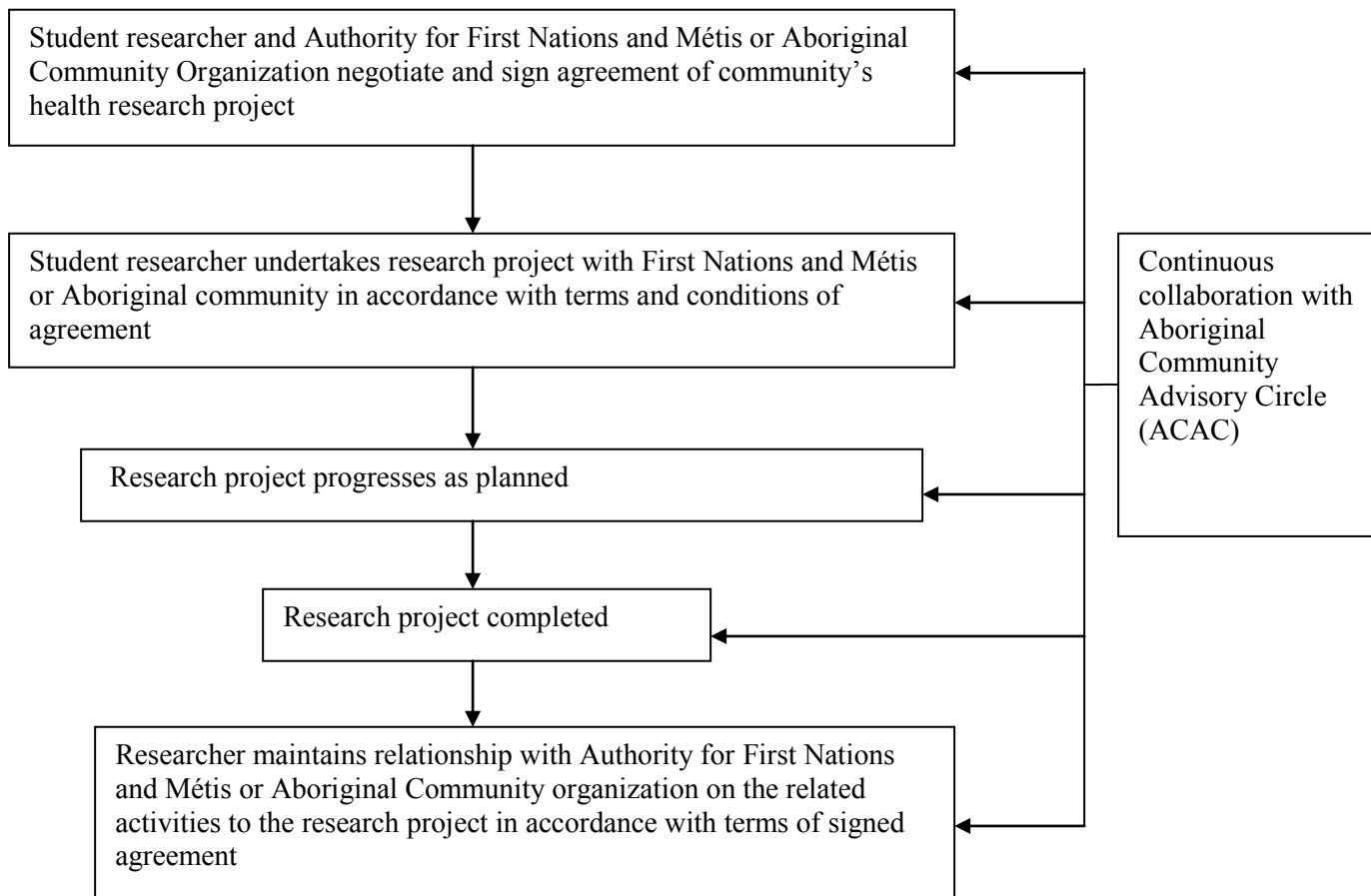


Appendix 5 (Contd.)

Step 2: Proposal Submission



Step 3: Maintaining Relationship



Appendix 7: Map Showing Location of Aboriginal Organizations in Ottawa



Appendix 8a: Support Letter from Odawa Native Friendship Centre



ODAWA NATIVE
FRIENDSHIP CENTER
12 Stirling Avenue
Ottawa, Ontario
K1Y 1P8
Phone: 613-722-3811
Fax: 613-722-4667

March 9, 2010

Professors Denise Spitzer and James Gomes
Institute of Population Health
University of Ottawa

Dear Professors Spitzer and Gomes:

Re: **Engagement in Research Project – Understanding Urban Métis, First Nations and Professionals’ perceptions of Susceptibility to Type 2 Diabetes: A Community Based Study**

This letter is to show the support and engagement of Odawa Native Friendship Centre in the above mentioned project with Hasu Ghosh, PhD Candidate in Population Health at the University of Ottawa.

This research is timely and important for the interests of our community members as many of our clients are concerned about issues related to developing Type 2 Diabetes. It is therefore important to give voice to the experiences of Aboriginal People in order to develop culturally appropriate diabetes prevention strategies. This will further enhance the projects we are already involved in the area of health and wellness, long term care and family support program.

Hasu is engaged with our organization as a graduate student researcher and has volunteered for several years. Hasu is committed to diabetes research with an aim to contribute in improving existing diabetes prevention strategies by providing local Métis and First Nations community based understandings of diabetes.

As mentioned above, we support this project and have agreed to sit on the “community Advisory committee” to help provide guidance to this project. We will also help facilitate access for Hasu Ghosh to the local Aboriginal community members whom we serve. We will give Hasu permission to conduct her interviews at our organization.

If you require any further information or have any questions, please give me a call at ____.

Thank you,

Alison Benedict, Executive Director, Odawa Native Friendship Centre

Appendix 8b: Support Letter from the Métis Nation Ontario



500 Old St. Patrick Street
Ottawa, Ontario K1N 9G4
T: 613-798-1488
TF: 800-263-4889
F: 613-722-4225
E: humanresources@metisnation.org
W: www.metisnation.org

March 9, 2010

Professors Denise Spitzer and James Gomes
Population Health PhD Program
Institute of Population Health
University of Ottawa

Health Branch

Dear Professors Spitzer and Gomes:

Re: **Engagement in Research Project – Understanding Urban Métis, First Nations and Professionals’ perceptions of Susceptibility to Type 2 Diabetes: A Community Based Study**

This letter is to indicate our support and involvement in the above research project with PhD student in Population Health Hasu Ghosh, MSc, MA.

Hasu approached the Métis Nation of Ontario with the intent to engage our organization in her research project. The project appealed to us because of the focus of her research which includes the issues of perceptions of susceptibility to Type 2 Diabetes that influence the uptake of existing knowledge, promotion activities and prevention strategies towards Type 2 Diabetes. This will further enhance research already undertaken by the MNO in the area of determining what type of health messaging appeals to and interests Métis people. In addition and more importantly, developing prevention strategies that are distinction based is of great interest to our organization as many of the clients we service have issues with Type 2 Diabetes.

Having said that, the Métis Nation of Ontario Health Branch supports the above research project and has agreed to sit on an Advisory Committee to help guide the project in terms or providing information through a “Métis lens”. MNO has also agreed to help the researcher (Hasu Ghosh) in securing access to the local Métis communities for their participation in this project. We give Hasu permission to conduct her interviews at our organization.

Meegwetch

Donna Lyons, Director of Health

Appendix 9: Ethics Approval from the University of Ottawa Research Ethics Board

File Number: H02-10-05

Date (mm/dd/yyyy): 04/07/2010



Université d'Ottawa **University of Ottawa**
Service de subventions de recherche et déontologie Research Grants and Ethics Services

Ethics Approval Notice

Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Denise	Spitzer	Social Sciences / Women's Studies	Supervisor
James	Gomes	Health Sciences / Others	Co-Supervisor
Hasu	Ghosh	Health Sciences / Others	Student Researcher

File Number: H02-10-05

Type of Project: PhD Thesis

Title: Understanding Urban Métis, First Nations and Professional's Perceptions of Susceptibility to Type 2 Diabetes: A Community Based Study

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
04/07/2010	04/06/2011	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:

N/A

Appendix 10: Recruitment Flyer

Are you Métis or First Nations?

Do you Have Type 2 diabetes?

Or

Do you know somebody who has Type 2 diabetes in your family or community?

If so, you may be able to participate in a study about urban First Nations, Métis, health service providers and policy makers' understandings of susceptibility to diabetes.

I am a student who would like to talk to you about your experiences and understandings around diabetes.

Participation is voluntary. Volunteers must be over 18 years of age or older, and has been living in an Eastern Ontario urban centre for last 2 years. Interviews may last around 60 minutes.

While being in this study will not benefit you directly, the information you provide may contribute in developing improved prevention and management of diabetes for urban Métis and First Nations People in future.

You will receive CAN\$ 20 for your participation

For more information, please call:

Hasu Ghosh

Institute of Populations Health

University of Ottawa

Appendix 11: Letter of introduction- Primary Participants (First Nations and Métis people)



uOttawa

Université d'Ottawa
Institut de recherche sur la
santé des populations
University of Ottawa
Institute of Population
Health
1 Stewart
Ottawa ON K1N 6N5
Canada
www.uOttawa.ca

Letter of introduction – primary participant

Date

Dear _____ ,

Thank you for expressing interest in my PhD study entitled ***Understandings urban Métis/ First Nations' and professionals' perceptions of vulnerability to Type 2 diabetes: A community based study to inform existing prevention strategies.***

This letter outlines the project's aim and your role in the project. The purpose of this project is to explore and analyze understandings about the development of Type 2 Diabetes (T2DM) from community members' (urban Aboriginal Peoples: First Nations and Métis) and professionals (health service providers; and policy makers) perspectives. Finally to examine and inform the existing diabetes prevention strategies in light of the perceived knowledge on vulnerability of developing Type diabetes.

Your participation will consist of one interview of about 60 minutes conducted by me. There may be need for follow-up in person or by telephone. Interviews will be conducted in English. A mutually convenient time and place will be arranged for the interview. Questions will be about your knowledge of susceptibility to develop diabetes. I will ask your written permission to tape record the interview.

You will receive \$20.00 for your participation.

All information shared is confidential. Your personal information in written materials will (e.g. name, place of birth, etc.) be kept confidential. A written summary of results will be shared with you.

Your participation will make a valuable contribution to understanding the vulnerability of developing diabetes among urban Métis and First Nations People and inform the existing prevention strategies to arrest the epidemic of this diabetes. If you would have questions or would like to participate in this study, please contact me at____.

I welcome your questions and comments, and look forward to meeting you.

Sincerely,

Hasu Ghosh
Candidate for PhD in Population Health
Institute of Population Health
University of Ottawa



uOttawa

L'Université canadienne
Canada's university

Université d'Ottawa
**Faculté des études
supérieures et
postdoctorales**

Doctorat en santé des
populations

University of Ottawa
**Faculty of Graduate and
Postdoctoral Studies**

PhD in Population Health

1 rue Stewart, pièce 300
Ottawa, ON K1N 6N5 Canada

Tél.: 613.562.5691
Télé.: 613.562.5112
Courriel: pop@uOttawa.ca

1 Stewart Street, Room 300,
Ottawa, ON K1N 6N5 Canada

Tel.: 613.562.5691
Fax: 613.562.5112
E-mail: pop@uOttawa.ca

www.uOttawa.ca

Appendix 12: Letter of introduction- Secondary participants (Health Service Providers and Policy makers)

Letter of introduction – secondary participant

Date

Dear _____,

Thanks for expressing interest in my PhD study entitled **Understanding Urban Métis, First Nations and Professionals' perceptions of susceptibility to Type 2 Diabetes: A Community Based Study**.

This letter outlines the project's aim and your role in the project. The purpose of this project is to explore and analyze understandings about the development of Type 2 Diabetes (T2DM) from community members' (urban Aboriginal Peoples: First Nations and Métis) and professionals (health service providers; and policy makers) perspectives and to examine and inform the existing diabetes prevention strategies in light of the perceived knowledge on susceptibility of developing Type diabetes.

Your participation will consist of one interview of about 60 minutes conducted by me. There may be need for follow-up in person or by telephone. Interviews will be conducted in English. The interview will take place either in your workplace or a mutually agreed upon place and time. Questions will be about your knowledge of the Urban Métis and First Nations People' susceptibility to T2DM and diabetes prevention strategies. I will ask your written permission to tape record the interview. You will not be compensated for your participation.

All information shared is confidential. I will remove your personal information in written materials (e.g., name, place of work, job title, etc.). I will prepare a written summary of results and send these to you.

Your participation will make a valuable contribution to further improve the diabetes prevention strategies. The results will be shared with research participants, participating community organizations, universities and government.

If you would have questions or would like to participate in this study, please contact me at _____.

I welcome your questions and comments, and look forward to meeting you.
Sincerely,

Hasu Ghosh
Ph.D. candidate in Population Health
Institute of Population Health,
University of Ottawa

Appendix 13: Letter of Modification in Ethics Approval from University of Ottawa REB



Université d'Ottawa | **University of Ottawa**
Service de subventions de recherche et déontologie | Research Grants and Ethics Services

January 17, 2011

Hasu Ghosh

Denise Spitzer
Institute of Population Health
University of Ottawa

RE: Understanding Urban Métis, First Nations and Professional's Perceptions of Susceptibility to Type 2 Diabetes: A Community based Study (H 02-10-05)

Dear Researchers,

The Health Sciences and Science Research Ethics Board has examined your request for ethics approval of the following modifications to your research project:

- The researchers are changing the duration of urban residence for researcher participants from 5 years to 2 years.
- The will recruit a transcriber.

Your request has been accepted. The certification of ethical approval delivered on April 7, 2010 and valid until April 6, 2011 covers these modifications.

During the course of the study, any further modifications to the protocol or forms may not be initiated without prior written approval from the REB. You must also promptly notify the REB of any adverse events that may occur.

If you have any questions, please do not hesitate to contact me at extension 5387.

Sincerely yours,

Germain Zongo
Protocol Officer for Research Ethics
For Daniel Lagarec, Chair of the Health
Sciences and Sciences REB

550, rue Cumberland 550 Cumberland Street
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada

(613) 562-5841 • Téléc./Fax (613) 562-5338
<http://www.uottawa.ca/services/research/rge/index.html>

Appendix 14: Demography of Community Participants

Participant Number	Birth Place	Reasons to move	Length of urban residence	Role	Gender	Age group	Educational attainment	Employment status	Marital Status	Diabetic/ Non-diabetic
Métis Participants										
27	Whitney, Ontario	Family decision and job transfer	Over 25 years	Grandmother, Mother, sister, friend	Female	Over 50 years	Undergrad degree (2 BA)	Employed	Widowed	Non-diabetic
3	Quebec	Family decision	Over 8 years	Mother, daughter, wife, sister, friend	Female	31-40 years	Post secondary education	Employed	Married	Diabetic diagnosed 5 and half yrs ago
16	Ottawa, Ontario	Born and raised in Ottawa	Whole life (58 years)	Caregiver, teacher, healer	Female	Over 50 years (58 yrs)	College		Common-law for 38 years	Pre-diabetic for T2DM
19	Ottawa, Ontario	Moved back and forth	Over 28 years		Female	41-50 years	High School (Gr 10)	Un-employed	Common-law	Diabetic (diagnosed 1 year ago)
20	Otter Lake, Quebec	Family decision for better opportunity	20 years	Mother	Female	Over 50 years	High School graduate	Un-employed	Separated/ divorced	Pre-diabetic since 1998
21	Ottawa, Ontario	Born and raised in Ottawa	74 years	Mother	Female	74 years	Post secondary education	Un-employed	Separated/ divorced	Diabetic (diagnosed 11 years ago)
8	St-Laurent, Manitoba	Did not disclose	Whole life in urban setting but 11yrs in Ottawa	Uncle, son, husband, brother, friend	Male	Over 50 years	Graduate degree	Employed	Living with partner	Diabetic

Appendix 14: Demography of Community Participants (Contd.)

Participant Number	Birth Place	Reasons to move	Length of urban residence	Role	Gender	Age group	Educational attainment	Employment status	Marital Status	Diabetic/ Non-diabetic
Métis Participants										
18	Ottawa, Ontario	Born and raised here	50 years	Métis Elder, Veteran, father, grand-parent, uncle, son, husband, brother, friend	Male	Over 50 years	Graduate degree	Unemployed	Married	Diabetic (Diagnosed one and half years ago)
22	Timmins, Ontario	As a choice of lifestyle	35 years	Did not disclose	Male	Over 50 years	High School graduate	Unemployed	Never married	Diabetic Diagnosed ¾ years ago)
28	Quebec City, Quebec	Likes Ontario	All my life (over 20 years)	Did not disclose but in Ottawa over 10 years	Female	20-30 years	Post-secondary education	Employed (part-time)	Never married	Non-diabetic
7	Île-des-Chênes, Manitoba	Job related	2 years	Son, brother, friend	Male	20-30 years	Undergrad degree	Employed	Living with partner	Non-diabetic
11	Ottawa, Ontario	Family decision related to job transfer	48 years	Friend	Male	41-50 years	High School graduate	Employed	Separated/divorced	Non-diabetic

Appendix 14: Demography of Community Participants (Contd.)

Participant Number	Birth Place	Reasons to move	Length of urban residence	Role	Gender	Age group	Educational attainment	Employment status	Marital Status	Diabetic/ Non-diabetic
Métis Participants										
12	Ottawa, Ontario	Born and raised in Ottawa	Most of the life (44 years)	Mother, aunt, daughter, sister	Female	41-50 years	Post-secondary education	Employed	Separated/divorced	Non-diabetic
15	Niagara, Ontario	For education	Over 10 years	Daughter, sister, friend, student	Female	20-30 years	Graduate degree	Employed	Never married	Non-diabetic
26	Montreal, Quebec	Family decision related to job transfer	60 years	Brother	Male	Over 60 years (64 years)	Graduate degree	Un-employed	Never married	Non-diabetic
First Nations										
25	Winnipeg, Manitoba	Did not disclose	11 years	Father, son, brother	Male	20-30 years	High School	Un-employed	Living with partner	Non-diabetic
13	Prince Rupert, BC	Family decision	33 years	Mother, daughter, wife, sister, friend	Female	31-40 years	Post-secondary education	Employed	Living with partner	Non-diabetic
9	Halifax, Nova Scotia	To find a job	8 years	Mother, wife, daughter, sister, friend	Female	31-40 years	Undergrad degree	Employed	Living with partner	Non-diabetic

Appendix 14: Demography of Community Participants (Contd.)

Participant Number	Birth Place	Reasons to move	Length of urban residence	Role	Gender	Age group	Educational attainment	Employment status	Marital Status	Diabetic/ Non-diabetic
First Nations										
10	Regina, Saskatchewan	First moved in this city with parents and left, and later on for better life and extra support	17 years	Mother, aunt, daughter, sister, friend	Female	20-30 years	High School graduate	Un-employed	Separated/divorced	Non-diabetic
5	Kitigan Zibi, Quebec	To attend school	5 years	Daughter, sister, friend	Female	20- 30 years	Post-secondary education	Employed	Never married	Non-diabetic
2	Little Current, Ontario	Family moved to Ottawa	39 years	Elder, uncle, brother, father, son	Male	41-50 years	Post-secondary education	Unemployed	Never married	Diabetic (T2DM) (diagnosed 5 years ago)
24	Chicago, Illinois	Family's decision	Over 20 years (3 years in Ottawa)	Uncle, son, friend	Male	41-50 years	High School graduate	Employed	Living with partner	Diabetic (diagnosed over 13 years ago)
6	Fort Albany, Ontario	To find job and to stay away from alcohol addiction	4 years	Son, brother, friend	Male	20-30 years	Less than high school education	Employed	Never married	Diabetic (diagnosed over a year ago)

Appendix 14: Demography of Community Participants (Contd.)

Participant Number	Birth Place	Reasons to move	Length of urban residence	Role	Gender	Age group	Educational attainment	Employment status	Marital Status	Diabetic/ Non-diabetic
First Nations										
23	Niagara Falls, New York	Did not share any specific reason	21 years	Father, husband	Male	Over 50 years	High School graduate	Employed	Married	Pre-diabetic/ borderline
4	Ottawa, Ontario	Born and raised in Ottawa	15 years	Mother, grandparent, aunt, wife, sister	Female	Over 50 years	Post-secondary education	Employed	Living with partner	Diabetic (diagnosed over 30 years ago)
14	Thunder Bay, Ontario	Occupation related	10 years	Elder, mother, aunt, sister, friend)	Female	Over 50 years	Post-secondary education	Employed	Separate/divorced	Diabetic (diagnosed over 10 years ago)
Participants of mixed origin (self-identified)										
17	Ottawa	First Nations and Métis	50 years	Mother, aunt, wife, sister, friend	Female	Over 50 years	Graduate degree	Employed	Married	Non-diabetic

Appendix 15: Demography of Professional Participants

Participant Number	Self-identification / Cultural group	Years with the Organization	Role	Years in this Role	Years in First Nations/ Métis health / social care	Patients with diabetes/ week	Patients with diabetes/ month	Aboriginal Patients with diabetes/ week	Aboriginal patients with diabetes/ month	Age group	Gender	Educational attainment
Health Service Providers (HSPs)												
10	First Nations	Family medicine 5-10 years; U of Ottawa less than 5 years	Family physician, director of Aboriginal Medical Program	Family medicine 5-10 years; U of Ottawa less than 5 years	5-10 years	30	120	30	120	41-60 years	Female	Undergrad degree (3 undergrads)
13	First Nations	Less than 5 years	Nurse Diabetes Educator	Less than 5 years	Less than 5 years	10	50 (group session include pre-diabetic People)	10	50	41-60 years	Female	Post-secondary college
1	Métis	Less than 5 years	Diabetes Dietician Educator, Registered Dietician	Less than 5 years	5- 10 years	2	6	2	6	20-30 years	Female	Graduate degree

Appendix 15: Demography of Professional Participants (Contd.)

Participant Number	Self-identification / Cultural group	Years with the Organization	Role	Years in this Role	Years in First Nations/ Métis health / social care	Patients with diabetes/ week	Patients with diabetes/ month	Aboriginal Patients with diabetes/ week	Aboriginal patients with diabetes/ month	Age group	Gender	Educational attainment
Health Service Providers (HSPs)												
6	First Nations	Over 10 years (14 years)	Diabetes Prevention Coordinator	Over 10 years (14 years)	19 years	Travel and offers diabetes workshops (participants are diabetic and pre-diabetic both)				51-60 years	Female	Post-secondary college
8	Other (Non-Aboriginal)	5-10 years	Diabetes Educator, Registered Nurse	5-10 years	Over 10 years	Very few				51-60 years	Female	Undergraduate degree
11	Other (non-Aboriginal)	5-10 years	Medical doctor	Less than 10 years	Over 10 years		10		1	51-60	Male	Graduate degree

Appendix 15: Demography of Professional Participants (Contd.)

Participant Number	Self-identification, Cultural group	Years with the organization	Role	Years in this role	Years in Métis and First Nations health/ health decision- making	Gender	Age group	Educational attainment
Policy Makers								
2	First Nations (Anishnawbe)	Less than 5 years	Research Manager	Less than 5 years	5- 10 years	Female	31- 40 years	Graduate degree
5	First Nations, Métis	Less than 5 years	Program Officer	Less than 5 years	5- 10 years	Male	31-40 years	Undergraduate degree
3	Other (Non-Aboriginal)	Less than 5 years	Health Planner, Diabetes Lead	Less than 5 years	5- 10 years	Female	41- 50 years	Graduate degree
4.	Other (Non-Aboriginal)	Less than 5 years	Policy Analyst	Less than 5 years	Less than 5 years	Female	20- 30 years	Graduate degree
9	Métis	Over 5 years	Director	Less than 5 years	Over 10 years	Female	51- 60	Graduate degree
12	First Nations	5-10 years	Policy Analyst	5- 10 years	5-10 years	Female	51-60 years	Undergraduate degree
7	Other (Non-Aboriginal)	Over 10 years	Program Manager/Policy advisor	Less than 5 years	5- 10 years	Female	41- 50 years	Graduate degree

Appendix 16a: Consent Form—Primary Participants



uOttawa

You are invited to participate in the doctoral study entitled ***Understanding urban Métis/ First Nations' and professionals' perceptions of vulnerability to Type 2 diabetes: A community based study to inform existing prevention strategies***. This research is funded by CIHR-IAPH funded Ottawa-ACADRE doctoral research award.

Student researcher Hasu Ghosh, PhD candidate, Institute of Population Health (IPH), University of Ottawa

Under the supervision of Professor Denise Spitzer, Principal-Supervisor; Canada Research Chair, Gender, Migration and Health, IPH and Institute of Women's Studies, Faculty of Social Science, University of Ottawa

Professor James Gomes, Co-Supervisor, McLaughlin Research Chair in Environmental Health Risk Assessment, Health Science Program, faculty of Health Sciences, University of Ottawa

Study purpose

The purpose of this project is to explore and analyze understandings about the development of Type 2 Diabetes (T2DM) from community members' (urban Aboriginal Peoples: First Nations and Métis) and professionals (health service providers; and policy makers) perspectives. Finally, to examine and inform the existing diabetes prevention strategies in light of the perceived knowledge on susceptibility to develop Type 2 diabetes.

Your voluntary participation

Your participation will consist of one interview of about 60 minutes conducted by me. There may be need for follow-up in person or by telephone to clarify certain responses. Persons who are of Métis and First Nations descent, living in any Eastern Ontario urban centres for over 2 years, 18 yrs age, suffering from Type 2 Diabetes or are familiar with this disease and who can communicate with English are invited to take part in this study. Interview will take place at a mutually convenient time or place. A follow up interview may be necessary for clarification.

Your voluntary involvement

If you decide to withdraw from the study, I will destroy the information already collected from you. There will be no negative consequences of your withdrawal. Please feel free to contact me at the number and email listed above during the study.

Anonymity

The information you will share with me is confidential. The data collected will be used for the purpose listed above. I will remove personal information in all written materials that result from this study. You will be given another name or a number so that there is no link between you and statements that you have shared with me.

Data use and storage

Voice recordings, interview transcripts, and my notes from the study will be securely kept at my home office. Other persons with access to the data are Professors Spitzer and Gomes. I will keep data for seven years after the study is finished after which time the data will be destroyed. I can provide you with a copy of the transcript that I make based on my interview with you. You can make comments about and deletions from the transcript at that time.

Benefits of study

Your participation will make a valuable contribution to understanding the vulnerability to develop type 2 diabetes and inform the existing prevention strategies to arrest the epidemic of this diabetes.

Compensation

You will not receive financial compensation for your participation in this study.

Potential risks

Sometimes talking about experiences relating to work practices can be distressing. Should you feel uncomfortable, we can stop the interview, change topics, continue our conversation or take a break. The decision is yours. You have the right to ask or refuse to answer any question.

Audio recording

I agree to allow for the interview to be voice recorded Yes _____ No _____

Acceptance

I (_____) agree to participate in this study conducted by Hasu Ghosh of the University of Ottawa as supervised by Professors Spitzer and Gomes.

Follow-up

Contact Hasu Ghosh or Professors Spitzer or Gomes with general questions about the study.

Signatures

Participant signature and date: _____ (Keep a copy of this form for your files)

Student researcher signature and date: _____



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Appendix 16b: Consent Form -- Secondary Participants

Consent form – Secondary participant

You are invited to participate in the doctoral study entitled **Understanding Urban Métis, First Nations and Professionals' perceptions of susceptibility to Type 2 Diabetes: A Community Based Study**. This research is funded by CIHR-IAPH funded Ottawa-ACADRE doctoral research award.

Principal Investigator

Hasu Ghosh, PhD candidate, Institute of Population Health (IPH), University of Ottawa

Under the supervision of

Professor Denise Spitzer, Principal-Supervisor; Canada Research Chair, Gender, Migration and Health, IPH and Institute of Women's Studies, Faculty of Social Science, University of Ottawa

Professor James Gomes, Co-Supervisor, McLaughlin Research Chair in Environmental Health Risk Assessment, Health Science Program, faculty of Health Sciences, University of Ottawa

Study purpose

The purpose of this project is to explore and analyze understandings about the development of Type 2 Diabetes (T2DM) from community members' (urban Aboriginal Peoples: First Nations and Métis) and professionals (health service providers; and policy makers) perspectives. Finally, to examine and inform the existing diabetes prevention strategies in light of the perceived knowledge on susceptibility to develop Type 2 diabetes.

Your voluntary participation

Your participation will consist of one interview of about 60 minutes conducted by me. There may be need for follow-up in person or by telephone to clarify certain responses. Persons who provide health service to the urban Métis and First Nations people or have working knowledge and experiences of urban Aboriginal health policy and can communicate in English invited to take part in this study. Interview will take place either in your work place or at a mutually convenient time and place.

Your voluntary involvement

If you decide to withdraw from the study, I will destroy the information already collected from you. There will be no negative consequences of your withdrawal. Please feel free to contact me at the number and email listed above during the study.

Anonymity

The information you will share with me is confidential. The data collected will be used for the purpose listed above. I will remove personal information such as your name, work place and job title in all written materials that result from this study. You will be given another name or a number so that there is no link between you and statements that you have shared with me.

Data use and storage

Voice recordings, interview transcripts, and my notes from the study will be securely kept at my home office. Other persons with access to the data are Professors Spitzer and Gomes. I will keep data for fifteen years after the study is finished after this time if needed the data will be securely destroyed. I can provide you with a copy of the transcript that I make based on my interview with you. You can make your comments about the transcript at that time.

Benefits of study

Your participation will make a valuable contribution to further improve the diabetes prevention strategies. The results will be shared with research participants, participating community organizations, universities and government.

Compensation

You will not receive compensation for your participation in this study.

Potential risks

Sometimes talking about experiences relating to work practices can be distressing. Should you feel uncomfortable, we can stop the interview, change topics, continue our conversation or take a break. The decision is yours. You have the right to ask or refuse to answer any question.

Audio recording

Interviews will be audio recorded to capture every details of our conversation. In case, you are not comfortable with voice recording, I will take notes.

I agree to allow for the interview to be voice recorded Yes _____ No _____

Acceptance

I (_____) agree to participate in this study conducted by Hasu Ghosh of the University of Ottawa as supervised by Professors Spitzer and Gomes.

Follow-up

Contact Hasu Ghosh with general questions about the study.

Signatures

-Participant signature and date: _____

(Keep a copy of this form for your files)

-Principal Investigator signature and date: _____

Appendix 17b: Demographic Information for Policy makers and Health Service providers

Participant #: _____

Self-identification: First Nations _____, Métis _____, Other _____.

Organization #: _____

1. Role:

- Policy maker- (specify program): _____
(Specify role/discipline): _____
- Health Service provider (HSP) (specify program): _____
(Specify role/discipline): _____

2. Years in role stated above: (circle one): < 5 5-10 > 10

3. Years with current organization (circle one): < 5 5-10 > 10

4. Years in health/social care (circle one): never < 5 5-10 > 10

5. Years in First Nations/ Métis or Aboriginal health /social care (circle one): never < 5 5-10 > 10

6. Patients with diabetes: per week ____; per month ____

7. Aboriginal Patients with diabetes: per week ____; per month ____

8. Gender (circle one): M F

9. Age (check one):

- < 20 years
 20-30 years
 31-40 years
 41-60 years
 > 60 years

10. Educational attainment (check one):

- < high school
 high school diploma
 some post secondary college or university
 undergraduate degree
 graduate degree

Appendix 18a: Interview Guideline for First Nations/Métis community members/ Elders/ seniors

Background/ Rapport

1. Tell me a little about yourself (personally/ work history as a community member, how long have you been living in this urban centre, where are you originally from)
2. Tell me about your experiences of diabetes in your family and community

Understanding about diabetes

1. When and where were you born and when did you move to Ottawa?
2. Major health issues during your growing ages in your communities?
3. What are the major health concerns for your family?
4. How would you describe/ explain diabetes?
5. How do you compare diabetes with other diseases?
6. In your opinion what factors contributed to the development of diabetes?
7. Are there any major social, cultural, historical processes responsible for the emergence of diabetes?
8. How did you react when you first heard about diabetes?
9. Women are more affected, why? (for First Nations only)/ Do you think more men or more women are affected by diabetes; and why? (For Métis only)
10. Does this diabetes cause any particular problem?
11. What is most difficult to deal with diabetes

Describing good care for diabetes prevention and management

1. In your opinion, what is 'good care' for Métis and FN families living here?
2. In this city, where FN/ M People get preventive services for diabetes?
3. What are your views on strengths and needs of Aboriginal families for preventing diabetes?

Factors influencing access to responsive preventive diabetes care

1. What makes it harder for FN/M families to get good preventive services for diabetes in this city? (community level, organizational level, policy level, provider level)
2. What makes it easier for FN/M families to get good preventive services for diabetes in this city? (community level, organizational level, policy level, provider level)
3. What could be done to improve care for FN/M/ families in this city? (provider level, organizational level, community level, policy level)
4. Other comments/ suggestions: re: improving access to preventive and responsive care for FN/M families in this city

Appendix 18b: Interview guideline for Health Service Providers and Policy makers

Background and Rapport

1. Tell me a little about yourself
2. Tell me about your experience in First Nations/ Métis or Aboriginal health care

Understanding about diabetes

1. How long have you been involved in Urban Aboriginal health issues-- your position and responsibilities
2. How do you explain Aboriginal health (specific to FN/M/I communities)
3. What are the major health issues among FN/M/I communities?
4. How do you explain diabetes with reference to FN/M/I People in the present urban context?
5. How do you compare diabetes with other health issues?
6. Are there any major social, cultural, historical processes responsible for the emergence of diabetes? (Specific to FN/M/I communities)
7. Women are more affected, why? (For First Nations only)/ Do you think more men or more women are affected by diabetes; and why? (For Métis only)
8. Does this diabetes cause any particular problem?
9. What is most difficult to deal with diabetes?

Describing good care for diabetes prevention and management

1. How would you describe “good diabetes care” for Aboriginal families living here?
2. In this city, where do Aboriginal Peoples get preventive services for diabetes?
3. What are your views on strengths and needs of FN/ Métis families for preventing diabetes?
4. What is your organization’s role related to care for urban F/M/I People (if any)?

Factors influencing access to responsive preventive services

1. What do you see as barriers to provide preventive care for F/M/I People in this urban centre? (community level, organizational level, provider level and policy level)
2. What do you see as facilitators to care for these populations in this city? (community level, organizational level, provider level and policy level)
3. What strategies/ actions would help reduce barriers/ improve access to care for FN/M/I People? (community level, organizational level, provider level, policy level)
4. What would be most helpful in improving capacity to provide preventive and responsive care for FN/M/I People in this urban sector? (targets (individuals, policy/program guidelines, environment/ space), methods (guidelines, mentoring, training), participants (providers, group leaders, agencies), and expected outcomes)
5. Other comments/ suggestions: re: improving access to preventive and responsive care for FN/M/I families in this city

Appendix 19: Confidentiality Agreement for Transcriber

This study is being undertaken by Hasu Ghosh, PhD Candidate in Population Health, Institute of Population Health at the University of Ottawa under the supervision of Professors Denise Spitzer and James Gomes of University of Ottawa. The purpose of this project is to explore and analyze understandings about the development of Type 2 Diabetes (T2DM) from community members' (urban Aboriginal Peoples: First Nations and Métis) and professionals (health service providers; and policy makers) perspectives. Finally, to examine and inform the existing diabetes prevention strategies in light of the perceived knowledge on susceptibility to develop Type 2 diabetes.

Project Title: Understanding Urban Métis, First Nations and Professionals' perceptions of susceptibility to Type 2 Diabetes: A Community Based Study.

I, _____ the *Transcriber*, agree to:

1. keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g., disks, tapes, transcripts) with anyone other than the *Researcher (Hasu Ghosh)*.
2. keep all research information in any form or format (e.g., disks, tapes, transcripts) secure while it is in my possession.
3. return all research information in any form or format (e.g., disks, tapes, transcripts) to the *Researcher (Hasu Ghosh)* when I have completed the research tasks.
4. after consulting with the *Researcher (Hasu Ghosh)*, erase or destroy all research information in any form or format regarding this research project that is not returnable to the *Researcher(s)* (e.g., information stored on computer hard drive).

Transcriber

(Print Name)

(Date)

(Signature)

Researcher

(Print Name)

(Date)

(Signature)

This Research is approved by University of Ottawa Research Ethics Board. For questions regarding participants rights and ethical conduct of research, contact the Chair of the Research Ethics Board at the University of Ottawa

Appendix 20: Peoples, Providers and Policy makers' Perceptions of T2DM

	Community member (Métis and First Nations people)		Professionals	
	First Nations (FN)	Métis	Health service providers	Policymakers
Explaining diabetes	<ul style="list-style-type: none"> Diabetic participants perceived diabetes in terms of either its co-morbid factors or its long-term complications. Non-diabetic participants' described diabetes in terms of its biomedical risk factors such as diet and physical activity. 	<ul style="list-style-type: none"> Both the diabetic and non-diabetic participants were interested in finding out ways either to prevent diabetes or to control its long-term complications and effects. They described diabetes and its related complications or individual level risk factors. 	<ul style="list-style-type: none"> Health service providers perceived description largely detailed on lifestyle change from traditional active to modern sedentary life, as well as substance abuse. 	<ul style="list-style-type: none"> Viewed diabetes in terms of its prevalence and incidence rates, including geographical variations of these rates.
Causes	<ul style="list-style-type: none"> Past and present government policies were identified as high-level factors that resulted in reduced access to traditional and affordable foods. Displacement from traditional territories and intergenerational trauma in First Nations view resulted in low self-esteem, lack of pride, identity confusion and disturbed the necessary balances in the emotional, mental, and spiritual aspects of FN lives, these ultimately generated serious repercussions for their physical health. Easy access to pre-packaged or fast food in urban centres was identified as one of the contributing factors to the poor dietary options among their people, and ultimately associated fast food or junk food with the onset of diabetes. 	<ul style="list-style-type: none"> Intergenerational trauma resulted from residential schooling and the 'sixties scoop' and subsequent loss of parenting and cooking skills, and developing self-destructive behaviours such as substance abuse and addiction lead to lack of care in diet and physical activities ultimately increased their susceptibility to physical ailments such as diabetes. Forced urbanization resulting from government-imposed Métis lands or territories has changed their lifestyle. Varied and demanding life contexts in urban areas often 	<ul style="list-style-type: none"> Diabetes is a cumulative impact of lot of stressors influencing urban First Nations and Métis lives, including the lack of social support for parenting, the lack of childcare, and co-morbid disease factors. Aboriginal clients often attempt to relieve these stressors by adopting unhealthy means of coping, such as substance abuse, sedentary life-styles, and overeating carbohydrates. Aboriginal clients are caught at the juncture of poverty and lack of education, thus helplessly rely on diet and activities 	<ul style="list-style-type: none"> Discussed diabetes in terms of the basics such as diet and physical activities, and noted the costs of healthy diets. Causes of diabetes include the legacy of colonialism and present urban issues. Continued racism, stereotyping and marginalization against Aboriginal Peoples as a legacy of colonial policies negatively affected their health and well-being. Considered historical legacies, social determinants of health including access to culturally-appropriate health care, employment, diet and physical activities as major

	Community member (Métis and First Nations people)		Professionals	
	First Nations (FN)	Métis	Health service providers	Policymakers
	<ul style="list-style-type: none"> Exposure to unfavourable social determinants of health such as combinations of low income, food insecurity and non-nutritious diet were identified as root causes of diabetes. Participants discussed about lack of knowledge about traditional practices of food selection and preparation among their community members, and the limited availability of nutritious or traditional food at affordable prices in urban areas may increase the likelihood of developing diabetes. First Nations participants stated that low educational attainment among their community members while facing racism against them marginalize them in the broader Canadian society and consequently place them on the periphery of information flow on diabetes, awareness and access to a healthy diet. Misinformation or lack of appropriate information about diabetes and its prevention was identified as another obstacle to healthy dietary practices. Urban migration led to sedentary nature of work and less activity, which again intersects with inaccessibility to organized physical activity through public programming because of expensive user fees. Drug and alcohol addictions may make them unable to take care of themselves or their families, thus compounding their likelihood of 	<p>restricted their capacity to opt for healthy food or physical activities.</p> <ul style="list-style-type: none"> Participants pointed to the changed subsistence patterns in their present geographic location due to the nature of employment, their busy schedules, access to transportation, and their easy access to sedentary amusements. At the same time lack of employment was identified as a contributor to low self-esteem and feelings of hopelessness among urban Métis youth and older adults. High cost of urban living as the reason for their restricted ability to select nutritious diets and access physical activities to prevent or manage diabetes. Lack of social or family support in urban areas often made a complete reorientation of Métis people's lives and led them to opt for unhealthy convenience foods. Wherever available, the sense of alienation or marginalization may, to a certain extent, prevent them from accessing and participating in diabetes prevention and management 	<p>available for them.</p> <ul style="list-style-type: none"> Health service providers stated that due to limited material resources many of their First Nations and Métis clients, face food insecurity, likely relies on fast food or community services. Lack of varied nature of interconnected community services, such as food bank, transportation, aids in navigating the health services were identified as precursors of diabetes. Health service providers however mentioned that there is a general lack of initiatives from Aboriginal clients to lead healthy lives. 	<p>contributing factors to the incidence of diabetes.</p> <ul style="list-style-type: none"> Convenience of fast food, particularly in urban areas where there is ample opportunity to access this food, which is less expensive and readily available. In this context, the lack of access to affordable and nutritious food was identified by the policy makers as one of the major contributing factors in diabetes. Discussed that Aboriginal residents from poor neighbourhoods without easy access to the grocery stores, have lower than average access to specialty food stores (for diabetic persons), and physical activity centres or community centres. However it has ample access to non-nutritious food outlets (fast food outlets, convenience stores). Expressed the need to address lack of knowledge and education about diabetes among First Nations and Métis community members increase their likelihood of developing diabetes. Perceived descriptions detail on housing shortage,

	Community member (Métis and First Nations people)		Professionals	
	First Nations (FN)	Métis	Health service providers	Policymakers
	<p>diabetes onset.</p> <ul style="list-style-type: none"> The limited level or absence of necessary urban life-skills is not always conducive to their overall health outcomes as mentioned by the First Nations community members. Participants discussed that inequitable access to federally funded health services or benefits for non-status Indians or non-status First Nations increases the likelihood of developing diabetes and or managing its long-term consequences. 	<p>activities.</p> <ul style="list-style-type: none"> Residential segregation of urban Métis in some areas of this city where convenience stores or fast food chains are prominent. Inequitable access to federally-funded health benefits to which other Aboriginal groups are entitled increase Métis members' susceptibility to develop diabetes or prevent the long-term consequences of this health problem. Culturally-relevant preventive health services for Aboriginal Peoples are primarily based on First Nations world views and tend to overlook the Métis-specific needs, which prevent them from accessing and participating in diabetes prevention and management activities. Lack of education and awareness among the community members has had a considerable role in increased diabetes incidence. 		<p>poverty, differential access to health services among status and non-status Indians and Métis people etc.</p> <ul style="list-style-type: none"> Funding limitations to continue particular programs and changes in policies or priorities limit effective diabetes prevention and management.
Prevention	<ul style="list-style-type: none"> Preventive health services need to become responsive to the cultural, legal, spatial and socio-economic diversities of urban First Nation's lives. There is a need for making the First 	<ul style="list-style-type: none"> Parents and teachers together have major role to play in diabetes education. There is a need to overcome the limitations of existing pan- 	<ul style="list-style-type: none"> Reiterated the need for improved awareness about diabetes self- management among their clients, thereby placed the onus on 	<ul style="list-style-type: none"> Open communication, including flexible hours of operation, and caring, respectful, and accommodating staff

	Community member (Métis and First Nations people)		Professionals	
	First Nations (FN)	Métis	Health service providers	Policymakers
	<p>Nations community people aware of diabetes, its risk factors, prevention and management options.</p> <ul style="list-style-type: none"> • Need for strategies or action plans for making healthy choices (diet and physical activities) available at the public places at no or affordable costs. • Need for more health human resources of Aboriginal origin. • Need for health services of inclusive nature. • Health service providers are required to become more knowledgeable about their Aboriginal clients' needs. • There is a need for improved networking among local Aboriginal and main stream organizations to reduce duplication but enhancement of the quality of services. • Enhancement of the quality of social determinants of health through the creation of more employment opportunities, education and increasing access to health care. • Availability of flexible and responsive funding options. 	<p>Aboriginal approach in diabetes prevention by responding to diversities needs and expectations of Métis lives.</p> <ul style="list-style-type: none"> • Increased education among health service providers is needed to become responsive to Aboriginal diversities in their practices. • Need for improving systemic efforts to reduce rate of unemployment, discontinuity in educational attainment, and enhancement in urban life skill training. • Need for better integration between health, social and community services at the local levels. 	<p>individuals to prevent or manage diabetes.</p> <ul style="list-style-type: none"> • Shared the challenges to address social determinants of health in their practices. • Talked about the need for responsive support from multiple levels to better address the intersecting issues that First Nations and Métis people face in their lives. • Acknowledged that health services take Aboriginal (pan-Aboriginal) approach and are not particularly geared to First Nations or Métis needs. • Discussed the need for paying attention to the changed Aboriginal population diversity and the importance of the social determinants of health in health services • Expressed the need for educating next generations of health service providers about responding to Aboriginal cultural sensitivity in their practices. Expressed the need for health, and community services to offer training for urban life-skills, such as lessons for cooking, monthly 	<p>members and health service providers, are perceived as factors of good preventative services.</p> <ul style="list-style-type: none"> • Lack of demographic information in relation to diabetes, its associated needs and expectations in the First Nations and Métis communities, particularly in urban communities was mentioned as a key barrier to offer responsive preventive services. • Stated that there may be a potential for combining traditional and mainstream medicines. • Shared that there is a definite need for more Aboriginal health service professionals. • Differences in service provisions based on the legal status of Aboriginal Peoples were acknowledged as a significant barrier to diabetes prevention and management. • Expressed that developing qualitative indicators of success of services in communities is very important to identify their reach, response, and impact on population. • Mentioned that inter-

	Community member (Métis and First Nations people)		Professionals	
	First Nations (FN)	Métis	Health service providers	Policymakers
			<p>budgeting, and grocery store visits etc.</p> <ul style="list-style-type: none"> • Discussed that there is a need for better structural integration among main stream and Aboriginal social and health services available in the city. • Discussed the importance of responding to community health needs through the Aboriginal organization led preventive services by engaging community Elders, role models. • Discussed the need to address the barriers in Aboriginal service organizations such as high employee turnover, lack of financial resources, and discontinuation of prevention services/ programs due to funding discontinuity. • Acknowledged the need for de-centralization of Aboriginal health and social services from downtown core and expansion to the other parts of the city. • Shared their need for flexible and responsive funding opportunities to develop, implement and run their programs. 	<p>organizational and intersectoral collaboration for successful service implementation and continuation is must.</p> <ul style="list-style-type: none"> • Given the increased urbanization of all Aboriginal groups, policy makers felt the need for revisiting the policies that regulate inter-governmental jurisdictional disputes in service provision. • Emphasised on providing need-based response of community identified issues at the program level. • Discussed that all three groups of Aboriginal Peoples should be engaged in health service planning and program development. • There is a need for more education among professionals and common peoples to know about Aboriginal culture.

Appendix 21: Diabetes Prevention Programs in Ottawa

Initiatives	Intervention Method	Population
Progenesis Project: Latin American Diabetes Screening Events. Involves Centertown's Diabetes Education Program of Ottawa, Ottawa Public Health, and Canadian Diabetes Association.	Fasting Test & 75 gm Load, anthropometry measurement, Risk assessment, risk management workshop, OGTT interpretation and Counseling, culturally appropriate cooking classes, healthy living and physical activity classes and awareness talks, understanding food labels and healthy cooking.	Latin American People
Ottawa Public Health Initiative: South Asian Innovative Healthy Community Kitchen Project	For adults and children educating them on ethnic dietary risk factors.	South Asian People
Ottawa Public Health Initiative: Age Well South Asian Project	Physical Activity sessions combining Diabetes, Heart Disease and fall prevention education	South Asian Seniors
Ottawa Public Health Initiative: "Spark" project for children collaborating with Heart and Stroke Foundation	Physical Activity initiatives for children to prevent child obesity	South Asian Children
Ottawa Public Health Initiative: South Asian Healthy Active Kids project	Attend SA language classes & learn culturally appropriate active living.	For South Asian Kids age 6-14.
Ottawa Public Health Initiative: Pedometer Walking Project	Pedometer walking project motivate participants to get minimum required steps per day. Together participants will educate on Chronic disease prevention	People Hindi, Punjabi, Sinhalese, Tamil, and Malayali speaking South Asian adults
Ottawa Public Health Initiative: South Asian Health Symposiums	Annual event to raise awareness on Heart disease and Diabetes.	South Asian People
Ottawa Public Health Initiative: Physical Activity Initiative	Netball for women, Badminton for families, Cricket for men, Table Tennis for kids and adults, Walking groups for adults and seniors	South Asian adults
Ottawa Public Health, Canadian Diabetes Association and Heart and Stroke Foundation of Ontario Initiative: "Call to Action"	Toward forming a S. Asian health Coalition. Community conversation followed by ongoing community meetings with community leaders.	South Asians

Appendix 21: Diabetes Prevention Programs in Ottawa (Contd.)

Initiatives	Intervention Method	Population
Ottawa Public Health Chair of First Nations, Inuit & Métis Diabetes Network along with Canadian Diabetes Association, Heart and Stroke, and Aboriginal Organizations in Ottawa	Diabetes Health Symposiums 2X yearly Diabetes, food label reading, Salt Reduction presentations, Health Fairs, Physical Activity initiatives, Aboriginal Youth Diabetes Art Contest, Culturally appropriate activities to raise awareness/prevention of diabetes	Urban Aboriginal Peoples living in Ottawa who are clients of Minwaashin , Odawa, Wabano, Métis Nation,
Ottawa Public Health	Health Fairs, Presentations,, Community Houses activities Family Days,	Priority Population, Seniors, Community Houses immigrants, Low income, Marginalized populations
Bruyere Academic Family Health Team: Diabetes program	Individualized medical counselling, group education on demand,	Polish, Haitian, African, Arabic, Hispanic
The Community Diabetes Education Program of Ottawa: Work with Multicultural groups	Language specific groups & individual counseling. Culturally adapted Diabetes Food Guide. Super market/label reading tours, presentations at health fairs, health edn. risk assessments, healthy eating, & exercise for adults; service delivery with L. American project Projenesis; collaboration with multi-cultural network.	Multiethnic children, adult and senior: South Asian, Chinese, Arabic, African, Aboriginal, Latin American, Arabic
ODRAC: Ottawa Diabetes Risk Assessment Collaborative – Community Diabetes Education Program of Ottawa, Ottawa Public Health and Canadian Diabetes Association	Risk assessment screening using * CANRISK questionnaire *Diabetes: What You Should Know presentation *Risk Assessment Stations: Blood pressure, Waist circumference BMI calculation and CANRISK score Random glucose testing Individual counseling by diabetes educators (for individuals who score high or very high risk for development of diabetes on the CANRISK questionnaire)	Target – ESL classes in Ottawa

Footnotes

ⁱ “Indigenous communities, people and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as people, in accordance with their own cultural patterns, social institutions and legal system.” (United Nations, 2004).

ⁱⁱ Aboriginal Peoples: The Canadian Constitution Act, 1982, Section 35.1 states that the Aboriginal People of Canada are First Nations, Métis and Inuit People. In Canada, the phrase ‘Aboriginal People’ refers to “organic, political and cultural entities that stem historically from the original people in North America, rather than collections of individuals united by so-called ‘racial’ characteristics” (Royal Commission on Aboriginal People 1996). The terms ‘Indigenous People’ and ‘Aboriginal People’ are used interchangeably in this thesis to collectively denote the first people of Canada.

ⁱⁱⁱ Indian: Indian people or Indians are people who are citizens of India, which forms a major part in of South Asia. See http://en.wikipedia.org/wiki/Indian_people

^{iv} Schedule Tribe (ST): Indigenous People in India are called Schedule Tribes as recognized in the Constitution of India.

^v Munda refers to an Indigenous tribe of India.

^{vi} As per the tradition of English spelling practiced in India, I decided to spell “Bengalee” instead of ‘Bengali’ while describing Bengalee as a nation or group of People who speaks in ‘Bengali’ language.

^{vii} Here Indian refers to the person of Indian origin or non-resident Indian. They are from India, continent of Asia.

^{viii} After more than thirteen years of wrangling, on January 8, 2013 in a landmark ruling the Federal Court in Canada declared that 200, 000 Métis and 400, 000 non-status Indians are indeed “Indians” under the Section 91(24) of the *Constitution Act*, and therefore fall under federal jurisdiction. Available via <http://www.cbc.ca/news/politics/story/2013/01/08/pol-cp-metis-indians-federal-court-challenge.html>

^{ix} The terms ‘First Nations’ and ‘Métis’ were defined as individuals who self-identified as First Nations or Métis in Canada. In Canada, First Nations refers to people of Native American origins who were the first occupants of the land (Wotherspoon and Satzewich, 1993). First Nations people in Canada registered under the *Indian Act* can be referred to as either registered or status Indian people (INAC, 2010), whereas First Nations people not registered with the federal government are called non-status First Nations people. The Métis refers to the mixed-blood descendents of French, Scottish, and English traders and First Nations women (Sawchuk, 2001).

^x Initially the length of urban residence for research participants was five years. When first phase of the recruitment resulted in very few interested participants from Métis background, in recommendation of the Aboriginal Community Advisory Circle (ACAC) members and with consultation of my supervisors, I had to change the length of urban residence five to two years. It has been recommended by the ACAC members that due to the transient nature of the Métis participants, five years could be too long of a period for them.

^{xi} Aboriginal health centres in Ontario are designed around the Aboriginal belief that mind, body, spirit and emotions must be cared for. In 1994, the Province of Ontario created ten specialized Aboriginal-led culturally

based health centres called Aboriginal Health Access Centres (AHACs). This step was viewed as a required solution by the Ontario Ministry of Health to act on alarming health and well-being statistics among Aboriginal People in the province. Each AHAC reflects the specific needs of its local community and is led by members of the Aboriginal community. Overall, these centres contain a medical clinic and a mental health clinic, and offer community and cultural programs along with community outreach by integrating Aboriginal and western health and wellness approaches. Services, events, and hours of operation vary from centre to centre. There are regular events organised by and for Aboriginal Peoples at Aboriginal health centres or in collaboration with them, playing an important role in urban and sub-urban Aboriginal lives.

^{xii} Subsidy for diabetes: Adults with diabetes requiring the use of insulin can apply for a tax credit as long as the eligibility criteria described on the form T2201 Disability Tax Credit Certificate (DTC) are met. Individuals using insulin therapy may be eligible for DTC if their physician completes the form and certifies it. Information is available at <http://www.diabetes.ca/get-involved/helping-you/advocacy/faq/tax-credit/>

^{xiii} The Medicine Wheel is an Aboriginal framework in the visual shape of a circle divided into four quadrants that encompass the physical, emotional, spiritual, and mental well-being of Aboriginal Peoples, the four dimensions necessary to maintain balance and harmony in one's life. "The Medicine Wheel illustrates symbolically that all things are interconnected and related, spiritual, complex and powerful" (Battiste, 2000).

^{xiv} Aboriginal Diabetes Initiative (ADI): The first phase of ADI was established in 1999 with an initial funding of \$58 million over five years (199- 2004). In 2005 it was expanded with a budget of \$190 million for five more years (2005- 2020). The current and third phase of ADI (2010- 2015) continue to support health promotion and diabetes prevention activities and services with a budget of over \$50 million per year (Health Canada, 2012). Health Canada's First Nation and Inuit Health Branch (FNIHB) manage the ADI. The ADI delivers community-based and culturally appropriate health promotion, primary prevention, screening and treatment services to more than 600 communities in partnership with tribal councils, First Nation organizations, Inuit community groups and provincial and territorial governments.