DEPRESSION AND MENTAL HEALTH IN PREGNANT ABORIGINAL WOMEN

Key Results and Recommendations from the

Voices and PHACES Study

Final Report

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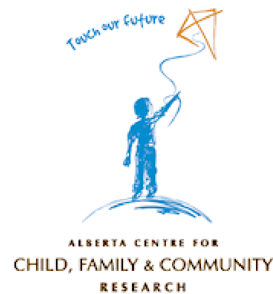

Awo Taan Healing Lodge Society

Depression and Mental Health in Pregnant Aboriginal Women

KEY RESULTS AND RECOMMENDATIONS FROM THE VOICES AND PHACES STUDY

TABLE OF CONTENTS

ACKNOWLEDGEMENTS III

ABSTRACT VII

SUMMARY VIII

FIGURE 1: A FRAMEWORK FOR UNDERSTANDING THE DETERMINANTS OF PRENATAL DEPRESSION IN ABORIGINAL WOMEN XI

REPORT 1

INTRODUCTION 1

BACKGROUND & SIGNIFICANCE 1

RESEARCH OBJECTIVES 2

COMMUNITY-BASED RESEARCH 3

STUDY METHODS 3

PARTICIPANTS 4

SUMMARY OF STUDY RESULTS 4

Pathways that can lead to depression 4

Depression 5

Chronic stress and trauma 5

Underlying societal and institutional context 6

Risk factors 8

Negative life events and circumstances – self, family, community 8

Negative relationships 9

Socioeconomic factors 10

Negative coping mechanisms 11
Positive protective factors 12
Healthy mind, body, spirit 12
Healthy relationships 13
Healthy environments 14
Barrier-free, effective, and culturally safe services 15
Services in Calgary and area 15
Pregnancy as a meaningful intervention point 17

SUMMARY OF RECOMMENDATIONS 18
Addressing social support 18
Addressing practical barriers to service access 19
Addressing stigma and lack of safety in health and social services 20
Addressing trauma, addictions, and mental health issues in health and social services 21
Addressing the social determinants of health and underlying societal context 22

CONCLUSIONS 22

REFERENCES 23

APPENDIX: CHARACTERISTICS OF STUDY PARTICIPANTS 25

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In addition to the five core community partner agencies listed above, twelve other agencies in the Calgary area came aboard the study as recruitment sites:

Northeast Calgary Women's Clinic
Isis Women's Health Clinic
Riley Park Maternity Clinic
Tsuu T'ina Nation – Health and Wellness Centre
Closer to Home and its prenatal program Kiwehtata
Brenda Strafford Centre for the Prevention of Domestic Violence
University of Calgary Native Centre
Mount Royal University Iniskim Centre
Alberta Health Services Calgary and Area Aboriginal Hospital Liaisons program
EFW Radiology's maternal-fetal medicine clinics in Calgary
Alberta Health Services Community Health Centres
Métis Child and Family Services Aboriginal Parent Link Centre

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Depression and Mental Health in Pregnant Aboriginal Women

KEY RESULTS AND RECOMMENDATIONS FROM THE VOICES AND PHACES STUDY

ABSTRACT

BACKGROUND: Depression is a major clinical and public health issue that carries serious consequences for wellbeing. In pregnant and postpartum women, the health consequences of depression also extend to the baby and other family members, making it an important maternal-child and family health concern. Chronic psychosocial stress is considered a prime risk factor. Aboriginal populations in Canada experience health and social inequities relative to other Canadians. Many of the risk factors and health consequences associated with prenatal depression are more common among Aboriginal populations, suggesting that prenatal depression may be a concern. However, research on depression among pregnant Aboriginal women is limited. Given the unique historical and present-day societal context involved, it would be erroneous to assume that the results of studies in non-Aboriginal populations can be directly applied to Aboriginal populations. The societal context of Aboriginal women involves intersecting stressors from race and gender, social exclusion, and intergenerational trauma from residential schools and other legacies of colonization. Failure to consider the influence of societal context on health can result in the overlooking of key pathways to target for meaningful and enduring primary prevention, and in the investment of funds into ineffective programs that are inappropriate to the needs of the target group.

STUDY METHODS AND OBJECTIVES: To address the above gap in knowledge, a qualitative constructivist grounded theory study (*Voices and PHACES*) was conducted in Calgary, with academic researchers from the University of Calgary working in partnership with local health and social services and with the involvement of Aboriginal community

members and Elders. The study aimed to understand the risk factors, the protective factors and the societal context of prenatal depression in Aboriginal populations. It also aimed to examine how services in Calgary are doing, and how they can be improved, in meeting the needs of this population. The study involved personal interviews with pregnant Aboriginal women and with service-providing professionals who work with pregnant Aboriginal women, as well as focus-groups with stakeholders.

KEY RESULTS: Chronic life stress and trauma were identified as key causes of depression, and were influenced by negative life events and circumstances, negative relationships, and socioeconomic factors. Driving these determinants were upstream, systemic factors related to historical and present-day societal context (e.g., racism, sexism, social exclusion, and intergenerational trauma from residential schools and other occurrences of colonization). Substance abuse was found to be a common coping mechanism for stress, trauma, and depression, indicating that mental health issues need to be addressed in order to effectively manage addictions. Social support and traditional Aboriginal healing practices were identified as protective, and thus may be key intervention strategies. While services in Calgary appear to be working well in certain ways, a need was identified for more culturally-appropriate services, better networking among agencies, and better training of service-providers to reduce stigma and enhance a safe and empowering healing environment for patients and clients.

KEY RECOMMENDATIONS: Aboriginal-specific prenatal and parenting programs are recommended – particularly those in group format that allow pregnant Aboriginal women to meet each other and develop supportive friendships. Additionally, programs that support Aboriginal fathers-to-be are warranted, to help them support their partner and children. Further research is required into ways that accessibility to services might be improved; possible solutions might be longer hours of operation, drop-in services instead of appointments, and availability of childcare. Better systems of referrals and communication between different services and organizations are required, to ensure continuity and comprehensiveness in care. Additionally, there is a need for more culturally-appropriate services for Aboriginal patients and clients, as well as better training of service-providing professionals on how to create safe, stigma-free, and respectful service environments for patients and clients. Finally, there is a critical need for programs, services, and policies that better address the social determinants of health, racism, sexism, domestic violence, addictions, personal trauma and mental health concerns, and the intergenerational effects of residential school trauma.

Depression and Mental Health in Pregnant Aboriginal Women

KEY RESULTS AND RECOMMENDATIONS FROM THE VOICES AND PHACES STUDY

SUMMARY

THE "VOICES AND PHACES" STUDY

Good mental health during pregnancy is extremely important for the health and wellbeing of mothers and their unborn children, as well as other family members. While there has been some research on depression during pregnancy (prenatal depression), very little has looked at the issue specifically among Aboriginal women. The purpose of this study was to understand the risk factors, protective factors, and societal context for prenatal depression in pregnant Aboriginal women. We also wanted to know how services in the Calgary area are doing in meeting the needs of this population, and how they can be improved. To answer these questions, we interviewed pregnant Aboriginal women and health and social services professionals in the Calgary area, between 2012 and 2014. We called the study "Voices and PHACES", with "PHACES" standing for "Prenatal Health for Aboriginal Communities and EnvironmentS".

For this research, academic researchers from the University of Calgary partnered with five organizations in Calgary that serve pregnant Aboriginal women: Inn from the Cold, Calgary Urban Project Society / CUPS, Awo Taan Healing Lodge, Elbow River Healing Lodge (Alberta Health Services), and the Adult Aboriginal Mental Health Program (Alberta Health Services). Additionally, there was an Oversight Committee which included two Elders, two respected Aboriginal community members who are active in leadership and research, and one representative from the Government of Alberta. The Oversight Committee helped us to make the research ethical, respectful of Aboriginal communities, and meaningful for the development of policies, programs, and services.

STUDY RESULTS

Pathways that can lead to depression

Mental health is complex, with lots of factors that can influence it. Not all of the possible factors are needed together to lead to depression in any one person. Moreover, pregnant Aboriginal women as a group are very diverse; not all women are going to experience the same things – nor will they react to, or be impacted by, experiences in the same way. Therefore, the findings described are meant to be a general description of things that can influence mental health during pregnancy in Aboriginal women. The connections between these factors are shown in Figure 1 in this report.

Underlying factors in society

We heard about how Aboriginal women's lives are impacted by both the history and present-day situation of Aboriginal peoples, and the way medical treatment and social services are set up. The legacy of colonization, including residential schools and the role of child welfare, continues to impact Aboriginal women's lives in the present day. Intergenerational trauma is a way of explaining how populations that have faced mass trauma – such as Aboriginal populations – develop poor health even in several generations after the main traumatic events. The traumatic events set off a cycle of addictions, violence, and breakdowns in relationships (among other issues) that result in the trauma being passed on from generation to generation.

Among other factors impacting Aboriginal women's health are racism, sexism, and domestic and sexual violence. Services that do not meet the needs of Aboriginal women, and/or services where Aboriginal women feel stigmatized, judged, or singled out, similarly have negative impacts. Taken together, these underlying factors appear to drive the pathways leading to depression.

Negative life events or circumstances – self, family, community

Participants in the study told us about many possible negative life events or circumstances in the lives of pregnant Aboriginal women. These include struggles with poor physical or mental health (of the women themselves, or of others in their lives). These health problems, along with deaths, addictions, incarcerations, or past residential school attendance by people in the women's lives can have an impact on their wellbeing. Stressful circumstances can impact the women's wellbeing; those things can be general life situations, and/or things related specifically to being pregnant or being a parent. Past or present involvement with child welfare services was mentioned a lot in the interviews as something that can impact mental wellbeing. This involvement could be a woman's experience of being in foster care herself during her childhood, and/or a woman's experience of having her child taken away from her by child welfare. Problems in the communities in which women live – including corrupt leaders, crime, or gang violence – also impact their wellbeing.

Negative relationships

While none of the pregnant women we interviewed attended residential schools themselves (most were too young to have been school-aged during that period), almost all had parents or relatives who did attend. The behaviour of these family members was deeply impacted by the experience, which in

turn impacted their interactions with the women we interviewed. Therefore, having family members who attended residential school is something that can impact the lives of pregnant Aboriginal women. In general, negative relationships can severely impact mental health. In addition to parents and family members, other possible negative relationships include abusive intimate partners, negative interactions with neighbours or community members, negative interactions at school or work, negative interactions with service-providing professionals, as well as interactions involving racist comments from non-Aboriginal persons.

Socioeconomic factors

Money factors are major risk factors for depression. These include low income, low education and unemployment, and the related problems of food insecurity, housing insecurity, and financial insecurity. Financial insecurity can be an ongoing issue in some women's lives; in other women's lives, it can be brought on by pregnancy and the prospect of another mouth to feed. Women who are employed can face job stress. As well, pregnancy and parenting can interfere with school or career progress, impacting wellbeing.

Chronic stress, trauma, and depression

In general, one of the principal risk factors for depression is chronic stress – that is, when one feels constantly worried or overwhelmed. A related issue is trauma, which is extreme stress following a serious negative event. Stress and trauma came up a lot in the interviews as something that can cause depression in pregnant Aboriginal women. All of the factors mentioned previously can cause considerable stress and trauma, and it is believed that such a pathway is the main one that connects those factors to depression as a mental health issue.

From a medical doctor's point of view, depression is when one feels sad or upset for a long time, generally more than two weeks. In addition to feeling sad, other possible signs may be things like loss of appetite, weight changes, sleep problems, trouble remembering things, and feeling tired more than usual. These symptoms are similar to how the women we interviewed spoke of depression, either in their own lives or in the lives of others they knew. They used phrases like "hitting rock bottom", and described experiences like feeling helpless, hopeless, worthless, empty, lonely, and tearful. They described signs like being unable to get out of bed, having trouble sleeping, and losing interest in things.

Depression can worsen stress and trauma, and can also negatively affect other aspects of life. In other words, depression can create a vicious cycle of worsening health and wellbeing, unless a woman gets the help or support she needs to stop it.

Negative coping mechanisms

We heard in our interviews about ways in which pregnant Aboriginal women cope with stress and negative life events. Negative ways of coping can make the factors leading to depression worse. These include unhealthy coping strategies such as substance abuse, gambling, and violence. These also include a lack of positive coping strategies, things like self-esteem, social support, optimism and hope, and a strong sense of identity.

Positive protective factors

By contrast, a number of protective factors were identified in the interviews that can buffer or block the pathways leading to depression; in other words, they can stop depression from happening or help to make it less serious.

Healthy mind, body, spirit

Factors mentioned in the interviews relating to healthy mind, body, and spirit include having financial security; having good diet, exercise, and pursuing enjoyable recreational or leisure activities; experiencing positive life events; having a positive outlook, including optimism and hope; experiencing pride from one's identity as an Aboriginal person and a woman; pursuing traditional Aboriginal culture and spirituality as ways of positively coping with stress; and viewing the pregnancy as an inspiration for positive changes that can lead to better health and wellbeing.

Healthy relationships

Healthy relationships that can offer protection include positive, meaningful, and respectful relationships with one's partner, family, friends, neighbours, coworkers, service-providing professionals; and relationships that involve both emotional and practical support from partner, family, friends, etc. Avoiding negative relationships (i.e., relationships that cause stress, or that lead to unhealthy behaviours like substance abuse) also appears to be a key positive action.

Healthy environments

Having positive, safe, and secure physical and social environments in women's day-to-day lives can reduce or prevent depression. These should include places where women live, study or work, seek programs or services, or otherwise spend time. Positive physical environments are those that allow women to feel safe and comfortable, and that allow easy access to resources like transit, groceries, and health and social services. Positive social environments are those that involve positive interactions with others, where women can feel respected, supported, appreciated, and connected.

Barrier-free, effective, and culturally safe services

Finally, health and social services that are easy for women to access, that meet the women's needs, and are set up so that women can feel comfortable, safe, and respected are also important positive factors. Cultural safety is a concept that, when applied to services, refers to the patient or client being made to feel equal to and respected by staff and others. When patients or clients feel this way, they are more likely to benefit from the service and continue to access it.

Services in Calgary and Area

We asked both women and service-providing professionals about how they felt services (both health and social services) in Calgary and the surrounding area are doing in terms of meeting the needs of pregnant Aboriginal women. A number of key points were made. Some services were described as very helpful because they give women the information, tools, resources, or treatments they need. More Aboriginal-specific services were requested, such as access to Elder support, and programs that

use Aboriginal culture and views on healing. Barriers to accessing services include hours of operation, childcare, and lack of transportation.

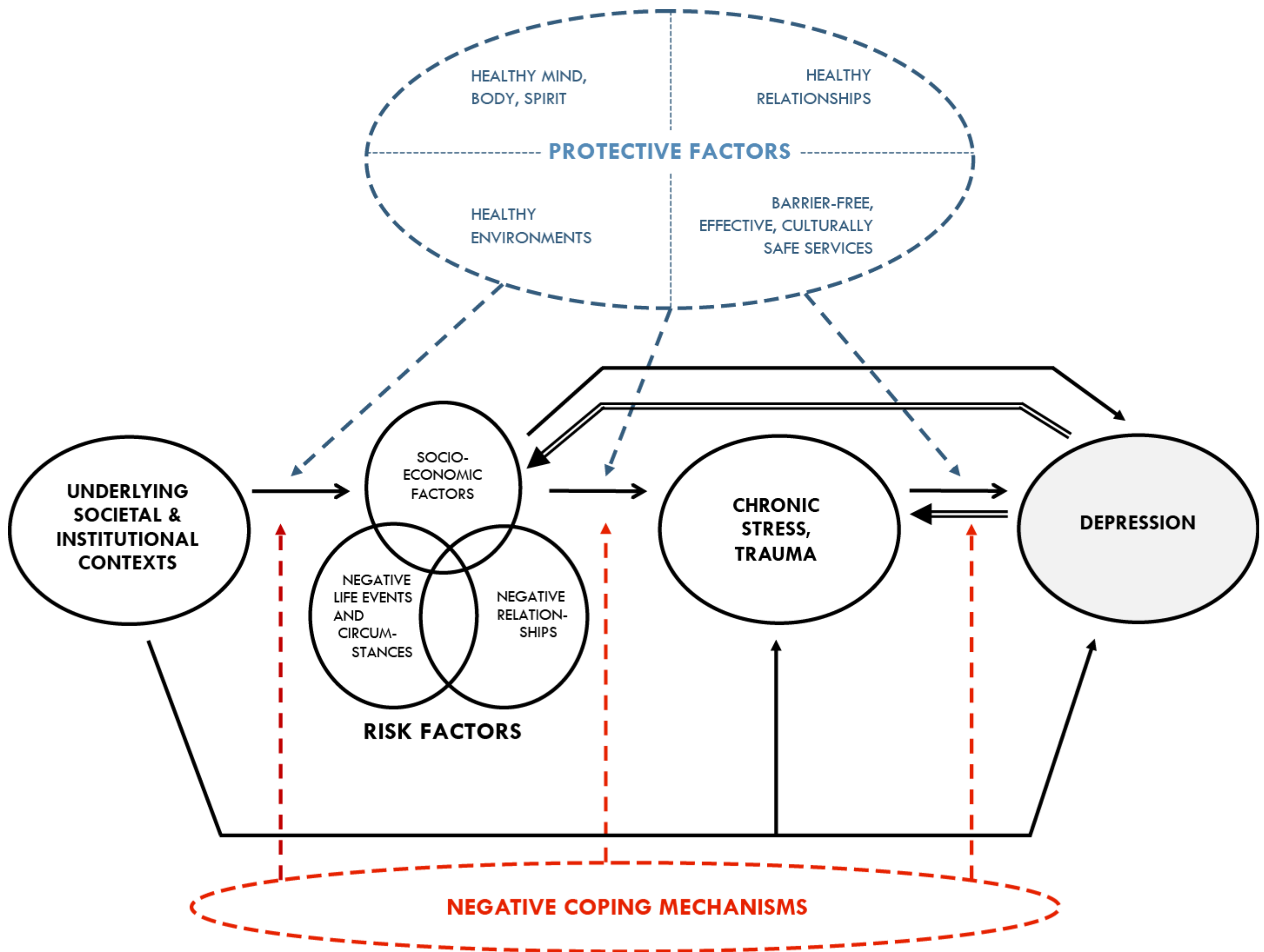
Women also spoke of experiences with negative, judgmental professionals, which discouraged them from using pregnancy-related and other services. Women also expressed concerns about child welfare policies not working in the best interest of children and families, and spoke of fear of child welfare as a reason for not using services.

Service-providing professionals expressed a need for better training and resources in order to create a safe, stigma-free environment. They expressed an interest in knowing how to make services more accessible, and how to help patients and clients make it to appointments or programs. Professionals suggested that services need to be better networked so that service systems can fully meet all of the needs of patients and clients in a comprehensive, holistic way.

KEY RECOMMENDATIONS

- Aboriginal-specific prenatal and parenting programs – particularly those in group format that allow pregnant Aboriginal women to meet each other and develop supportive friendships.
- Programs that support Aboriginal fathers-to-be, to help them support their partner and children.
- Further research into ways that accessibility to services might be improved. Possible ways might be longer hours of operation, drop-in services instead of appointments, and availability of childcare.
- More culturally-appropriate services for Aboriginal patients and clients.
- Better systems of referrals and communication between different services and organizations.
- Better training of service-providing professionals on how to create safe, stigma-free, respectful service environments for patients and clients.
- Programs, services, and policies that better address the social determinants of health (including income, education, employment, social support, and physical and social environments), racism, sexism, domestic violence, addictions, personal trauma and mental health concerns, and the intergenerational effects of residential school trauma.

FIGURE 1: A FRAMEWORK FOR UNDERSTANDING THE DETERMINANTS OF PRENATAL DEPRESSION IN ABORIGINAL WOMEN



Depression and Mental Health in Pregnant Aboriginal Women

KEY RESULTS AND RECOMMENDATIONS FROM THE VOICES AND PHACES STUDY

REPORT

INTRODUCTION

Good mental health during pregnancy is extremely important for the health and wellbeing of mothers and their unborn children, as well as other family members. While there has been some research on depression during pregnancy (prenatal depression), very little has examined the issue specifically among Aboriginal women. As a first step to address this gap, we launched the *Voices and PHACES* study (with PHACES standing for Prenatal Health for Aboriginal Communities and EnvironmentS). The purpose of the *Voices and PHACES* study was to understand the risk factors, protective factors, and societal context for mental health issues in pregnant Aboriginal women. Key results and associated recommendations are summarized in this report. We hope that this information will help programs and services to meet the needs of pregnant Aboriginal women and their families.

BACKGROUND & SIGNIFICANCE

Depression is a major public health issue that carries serious consequences for health and wellbeing. Depression during pregnancy can have negative impacts on the health of both the mother and the unborn child; these include adverse pregnancy outcomes such as low birthweight and preterm birth (Korebrits et al., 1998; Swaab, Bao, & Lucassen, 2005; Szegda et al., 2014; Wadhwa et al., 1996), increased risk of subsequent postpartum depression in the mother (Beck, 2006; Bowen & Muhajarine, 2006), and increased risk of mental health problems in the

child later in life (Swaab, Bao, & Lucassen, 2005). Furthermore, maternal depression can impact the mother's interactions with her baby, her partner, and her other children, yielding negative effects on the children's long-term cognitive and behavioural development. Thus, good maternal mental health is critical for the physical, mental, and psychosocial health of the entire family; it has ramifications for healthy child development and for the maintenance of a stable home environment (Letourneau et al., 2012). As such, mental health during pregnancy can be seen as a meaningful early-intervention point for a series of concerns related to maternal health, child health, and family wellbeing.

Depression is believed to have multiple and diverse risk and protective factors, including biological factors and psychosocial factors. Chronic stress, from life events and socioeconomic and/or sociocultural circumstances, is believed to be a key risk factor for depression. Although largely psychosocially determined, chronic stress has biological consequences in the body. As such, stress falls at the interface between the pathophysiology of depression (and countless other disorders) and the social determinants of health (Roy & Campbell, 2013).

Aboriginal populations in Canada experience poorer health and greater social inequities relative to non-Aboriginal populations (First Nations Centre, 2005; Bennett, 2005; Adelson, 2005). Many of the risk factors and health consequences associated with prenatal depression are more prevalent among Aboriginal populations, suggesting that prenatal depression may be a pressing health concern (First Nations Centre, 2005; Bennett, 2005; Adelson, 2005). However, research on prenatal depression in Aboriginal populations is very limited (Bowen et al., 2014). Given the unique historical and present-day societal context involved, it would be erroneous to assume that the results of studies in non-Aboriginal populations can be directly applied to Aboriginal populations. Notably, Aboriginal women experience intersecting issues like racism and sexism, social exclusion, and intergenerational trauma from residential schools and other legacies of colonization (Roy, 2014). These factors likely influence mental health during pregnancy, potentially in complex ways. Failure to consider the influence of societal context on health can result in the overlooking of key pathways to target for meaningful and enduring primary prevention, and in the investment of funds into programs that are not effective due to being inappropriate to the needs of the target group. Targeted research is crucial for the development of effective and evidence-based policies, programs, and services for this population.

RESEARCH OBJECTIVES

The *Voices and PHACES* study sought to understand:

- the risk and protective factors for depression during pregnancy in Aboriginal women;
- the societal context of Aboriginal women's lives; and
- the appropriateness and adequacy of existing programs and services in Calgary, and how these programs and services can be improved or expanded.

For the purposes of this study, the term 'Aboriginal' is being used broadly as an umbrella term for the Indigenous peoples of Canada, including First Nations (status and non-status), Métis, and Inuit. While a broad definition was adopted for the purpose of this urban-based study's objectives, it is important to recognize the diversity between and within these groups.

COMMUNITY-BASED RESEARCH

A community-based approach was used in the study, involving academic-community partnerships between University of Calgary researchers, community organizations (social services agencies and health clinics) in the Calgary area, and members of local Aboriginal communities. Such an approach was taken to help ensure that the research would be valid, ethical, meaningful for knowledge translation, and respectful of the principles of Ownership, Control, Access and Possession (OCAP) in Aboriginal research. The latter is a key framework for research involving Aboriginal peoples; it mandates full partnership and self-determination regarding all aspects of research, and requires that all research involving Aboriginal peoples be done in ways that bring benefit (First Nations Centre, 2007). Five community organizations in Calgary served as core partners in the research:

- Inn from the Cold;
- Calgary Urban Projects Society (CUPS);
- Awo Taan Healing Lodge;
- Elbow River Healing Lodge of Alberta Health Services; and
- Adult Aboriginal Mental Health program of Alberta Health Services.

Along with assisting in the recruitment of participants, representatives from these five organizations served on the study's Research Team, alongside the University of Calgary researchers. Twelve other organizations, as listed in the Acknowledgements section of this report, chose to be involved as recruitment sites only.

In addition to the involvement of community partners on the Research Team, the study also had a separate Oversight Committee involving four Aboriginal community members (two of whom were Elders), and a representative from Alberta's Ministry of Human Services. A project governance structure, involving regular meetings and consultations, was implemented to ensure a collaborative approach throughout all stages of the study (Roy et al., 2014).

STUDY METHODS

The study was approved by the Conjoint Health Research Ethics Board of the University of Calgary. A method of qualitative research called "constructivist grounded theory" was used for this study. "Grounded theory" seeks to develop a theory regarding a phenomenon, based on data gathered. In "constructivist" grounded theory, the researchers seek the standpoints of the participants, as well as the historical circumstances and social experiences that shape their opinions. A constructivist approach recognizes the existence of multiple interpretations of a situation according to societal context (Charmaz, 2009).

Personal (one-on-one) interviews were conducted with pregnant Aboriginal women and professionals who provide health and social services accessed by the women. Participants (pregnant women and professionals) were recruited from partner community organizations. Pregnant women were eligible

to participate if they were 18 years of age or older, were in the second or third trimester of pregnancy, self-identified as Aboriginal, resided in the Calgary area, and consented to be involved. Professionals were eligible to participate if they worked in health and/or social services in the Calgary area, and consented to be involved. Interviews were approximately one hour in length, and were conducted face-to-face with an interviewer in a safe location convenient to the participant (e.g., at the community partner agencies). A $25 fee was given to each participant as a thank-you and to cover any costs to attend the interview, such as parking or childcare. After analysis of the data from the initial round of interviews was completed, participants were contacted about their interest in a second interview to go over the findings, for confirmation and further feedback (member-checking).

Following completion of member-checking interviews, a community gathering was held in Calgary. Invitees to the event included study participants, other Aboriginal community members, staff and management of health and social service agencies in the Calgary area, and other stakeholders. The preliminary results of the study were shared at the event, followed by a presentation by one of the study's Aboriginal women participants about her experiences. Focus-group-style discussions were then held to seek audience reactions and reflections on the study results and on possible recommendations for policies and programs.

PARTICIPANTS

Personal interviews were conducted with 13 pregnant Aboriginal women and 12 professionals from health and social services in Calgary between March 2012 and August 2013. Of these 25 participants, seven subsequently participated in member-checking interviews (three of the women and four of the professionals). Eleven individuals attended the community gathering for stakeholders held in March 2014. Participants in all components of the study were diverse, allowing for many perspectives and experiences to be heard. Details on participant characteristics are summarized in the appendix at the end of the report.

SUMMARY OF STUDY RESULTS

Pathways that can lead to depression

The breadth and depth of responses corroborate the complexity of mental health issues like depression. A large number, and diverse range, of influencing factors were discussed by participants. It is of note that not all of these possible factors are required to lead to depression in an individual. Moreover, pregnant Aboriginal women as a group are very diverse; not all women are going to experience the same things – nor will they react to, or be impacted by, experiences in the same way. Therefore, the findings presented below are meant to be a general description of factors that can influence mental health during pregnancy in Aboriginal women. The pathways through which possible determinants interrelate to yield depression are summarized in the framework reflected in Figure 1.

Depression

Medically-speaking, depression is when one feels sad or upset for a long time, generally more than two weeks. In addition to feeling sad, other possible symptoms may include loss of appetite, weight changes, sleep problems, trouble remembering things, and feeling tired (APA, 2013). These symptoms are similar to how the women we interviewed spoke of depression, either in their own lives or in the lives of others they knew. They used phrases like "hitting rock bottom", and described experiences like feeling helpless, hopeless, worthless, empty, lonely, tearful. They described symptoms like being unable to get out of bed, having trouble sleeping, and losing interest in things. One woman described depression as "when you're not yourself [because] a spirit that shouldn't be there … takes over your body and your mind and lets you think all these awful things and makes you do awful things." Two women reported experiencing depression during or after a previous pregnancy. As one of these women described:

> **I isolated myself. I didn't eat. I couldn't sleep. I was getting anxiety attacks. … My Mom kept coming over trying to get me to leave my house but I wouldn't leave. I didn't sleep in my room. I moved to my living room. … I just lost interest in everything. … I was like that for a whole month and I was always crying.**

Nearly all of the professionals we interviewed described interacting with Aboriginal patients or clients with confirmed or suspected mental health issues, with clinical depression being particularly common. Other mental health issues encountered included anxiety, post-traumatic stress disorder, eating disorders, chronic pain, and substance abuse; multiple professionals noted that the latter was a correlate and indicator of poor mental health. Some professionals reported encountering prenatal and postpartum depression among their Aboriginal patients or clients; they noted the heightened ramifications of mental health issues during pregnancy, due to possible health consequences for both the mother and the unborn child.

Chronic stress and trauma

Chronic stress – the state of feeling constantly worried or overwhelmed due to life circumstances – was linked by all the women to negative emotions and poor mental health. Trauma – extreme stress following a serious negative event – also came up in the interviews as linked to depression. One woman, whose daughter was removed from her care due to concerns about her mental health, described how it took her some time to recognize the point where life stress led to depression:

> **I think the hardest [thing] was my daughter being apprehended from me. I was going through depression because I had just gotten out of a recent abusive relationship from my daughter's biological father. I [had] just got out of the [women's] shelter, got my own place. My daughter has [a serious chronic illness]. I was on my own, just me and her in an apartment, dealing with bills, dealing with her [illness], dealing with the threats from … [her] biological father, and it just became too much for me. I didn't realize that I was depressed. … I just thought, okay, I'm just stressed, just stressed. I didn't understand the signs of depression. I didn't realize that I was isolating myself. I didn't realize that I was affecting my daughter's health, as well. … Social Services [took my daughter because] they just want me to be stable and understand signs of depression.**

Both the women and professionals cited various negative life factors that can contribute to depression via the stress and trauma they cause. These risk factors are categorized and described below. It was apparent from the women's interviews, in particular, that many of these factors interact and overlap with each other in complex ways. To indicate this complexity, the three categories are shown in Figure 1 as interlaced circles. While depression is the outcome of interest for the purpose of this study, the interview data also pointed to the vicious cycle that can be set off between negative life factors, stress and trauma, and depression. To depict this cycle, arrows leading from depression back to points earlier in the pathways are included in Figure 1. Underlying contextual factors that appear to drive the pathways leading to poor mental health, according to the ideas coming out of the interviews, are positioned on the very left in Figure 1.

Underlying societal and institutional context

Participants reflected at length about how Aboriginal women's lives are impacted by the broader historical and present-day societal context, and the context in institutions such as health and social services.

The atrocities committed against Aboriginal peoples over the course of colonization have resulted in "massive losses of lives, land, and culture" (Brave Heart & Debruyn, 1998, p.60). The legacy of colonization, including residential schools and the disproportionate involvement with child welfare authorities, continues to impact Aboriginal women's lives in the present day. Intergenerational trauma is a formal theory to understand why populations that have faced mass trauma – such as Aboriginal populations, who faced the events of colonization – continue to have poor health even several generations after the main traumatic events. The traumatic events set off a cycle of addictions, violence, and impaired parenting (among other issues) that result in the trauma being passed on from generation to generation (Sotero, 2006).

The Indian Residential School system was designed with the explicit objective of assimilating Aboriginal children into mainstream Canadian society, by breaking their links with family, community, and culture. Additionally, students were mistreated and neglected, as well as physically, sexually, and psychologically abused; survivors thus left the schools highly traumatized (Truth and Reconciliation Commission of Canada, 2015). Many of the women we interviewed reflected about the intergenerational impact of residential schools, including one woman who noted its link with her partner's abusive behaviour:

> **[My spouse is mean]. He's always angry and mad and he takes it out on me. He doesn't know how to deal with himself, he doesn't know how to deal with addictions or his anger, so he turns to drugs and alcohol. … I think it's because his Dad was really mean too and his Dad was raised in residential [school]. … They were raised really strict and they were really abused with, like, sticks – you know, still getting raised in the residential [school] way. They never broke out of that and it just stuck with them until this day, it's still like that. It's passed on … generation [to] generation.**

Other women spoke of the intergenerational impacts of residential schools in their own birth families, including one woman who reflected about its role in contributing to substance abuse and other dysfunctional behaviour among her family members:

> **My mom [was never around] for me and my siblings. … [Her mom], my Grandma, was in residential school and she said what she got out of it was she didn't know how to love, … how to show affection. … She wasn't there for none of her kids. All my uncles [are] in and out of jail through their whole lives. … My aunties drink a lot and my mom smokes weed. … I was [also] following in that pattern of drinking and not caring.**

Another woman reflected on the role of residential schools in both family and community relationships:

> **My mom just doesn't know how to hug, she doesn't know how to show [affection]. She's [even] not capable of … praising me, and being like 'oh I'm so proud of you.' … I just think that [the residential school system] really interrupted our traditional way of living. [It] had an extremely detrimental effect on us as an individuals and also how we function as a community. We're very dysfunctional [because of it].**

Among other factors impacting Aboriginal women's health are racism and sexism. As one woman explained: "[As] both [a woman and an Aboriginal woman], I feel second class. [I] don't get as much respect." Experiences of domestic and sexual violence came up repeatedly in the interviews; the experiences described by the women encompassed the full spectrum of physical, psychological, emotional, financial, and sexual abuse. Experiences of racism and sexism – both implicit and highly overt – were also shared by the women, in settings including schools, workplaces, neighbourhoods, and when seeking health or social services. The women noted the convergence of racism and sexism in the discrimination they faced as pregnant Aboriginal women, who are often stereotyped as bad mothers who party, who abuse substances, and who are promiscuous. As one woman explained:

> **[We] are constantly being asked by anyone and everyone if we're using drugs, alcohol or smoking during pregnancy. They're assuming that we are. And also the assumption that each of our children have different fathers. … I don't see [women from] other cultures being asked 'Oh, do your kids have the same Dad?' or 'Who's that [one's Dad], who's your first child's Dad, who's your second child's Dad?' But I'm constantly asked 'Oh, do your kids have the same Dad.' … It's doctors, social workers, people I meet on the street [who are asking these questions].**

Another woman described the impact of such stereotypes on her mental health:

> **I guess people may be looking at me as an Aboriginal woman that's pregnant. They're judging me, I guess, like 'Oh, she's probably drinking or smoking.' I'm learning not to care what people think, but then it kind of takes a little overwhelming toll on me [because] I do care, I'm human.**

Professionals, too, shared stories that reflected racism and racialized sexism in health and social service settings; multiple professionals shared shocking anecdotes of overtly judgemental comments made by their colleagues behind the backs of patients or clients (this is discussed in greater detail later in this report). The professionals' interviews thus confirmed the suspicions shared in the women's interviews about the stigma Aboriginal women face in service systems.

Risk factors

NEGATIVE LIFE EVENTS AND CIRCUMSTANCES – SELF, FAMILY, COMMUNITY

Both the women and professionals told us about many possible negative life events and circumstances in the lives of pregnant Aboriginal women. These included struggles with poor physical or mental health (of the women themselves, or of others in their lives). Exhaustion came up frequently in the women's interviews. While some attributed it to the physical effects of pregnancy, most noted the various stressors in their lives which led to them feeling overwhelmed and worn out. The health problems, deaths, addictions, incarcerations, or past residential school attendance of people in the women's lives were reported as having had an impact on the women's wellbeing. One woman explained how her partner's alcoholism severely impacted her mental health:

> **I'm really … down … when my spouse drinks. … I feel hurt or sometimes I feel lonely or I'm just like confused. I don't know what to do but there's nothing I can do because I can't change somebody, … but it still affects me 'cause they're like my partner and I've been with them for so long.**

Health problems of children, other family members, or friends were cited as stressors, both due to the worry created and to stress from practical caregiving responsibilities. Deaths of close family members, friends, or community members were also discussed as particularly difficult to overcome. Several women described individuals close to them dying in disturbing circumstances, including suicide, gang or other violence, and drug overdoses. For some of these participants, the death of someone close to them, occurring often in tandem with other difficult life events and circumstances, pushed them into extreme depression and dysfunction. As one woman shared:

> **I actually had a breakdown. … [In addition to being abused by my boyfriend and his family], my late brother passed away, … so it was too much for me. … I drank two bottles of vodka, 'cause I didn't care. I blacked out [and ended up in hospital] and my Mom even told me I was trying to kill myself.**

Some of the deaths cited in the women's interviews occurred long before the women became pregnant; however, the memories and ramifications of the deaths were still felt, even years later. Other deaths were experienced during pregnancy; one woman explained: "It was really hard to focus on my pregnancy [after that]."

References to residential school attendance by family members, including parents, siblings, grandparents, and great-grandparents, came up repeatedly in the interviews. The resultant trauma in these family members was cited as a source of distress among the women. The women had to cope both with the challenging nature of their relationships with these individuals as a result of their trauma (including abuse and neglect), and with other ramifications of these individuals' dysfunctional behaviour. Some women noted that their abusive partners' family members attended residential school, and that this was likely at the root of their partners' abusive behaviour.

Stressful events or circumstances that impact the women's wellbeing can be general life situations, and/or things related specifically to being pregnant or being a parent. Examples mentioned in the interviews included cumulative day-to-day stressors; having no time to relax or unwind; stress from parenting existing children; socioeconomic insecurity; negative relationships; dysfunctional family and

community dynamics; and other life circumstances such as domestic violence, involvement in the criminal justice system, and involvement in the child welfare system.

Past or present involvement with child welfare services was mentioned a lot in the interviews as something that can impact mental wellbeing. This involvement can be a woman's experience of being in foster care herself during her childhood, and/or a woman's experience of having her child taken away from her by child welfare authorities. As one woman explained in describing her fear around her current pregnancy: "I don't really want to bring another baby into this world just for the baby to get apprehended again."

Beyond family and friends, problems in the community were cited as impacting the wellbeing of Aboriginal women during pregnancy. These included negative community dynamics such as gossip, corruption among community leaders, and crime (including gang violence). Living in communities with a high prevalence of negative issues such as addictions, suicide, and poverty were also noted to have an impact on women, regardless of whether there was personal experience of the issues, due to the poisoned social environment. Problems were noted both in reserve communities and in urban communities where Aboriginal women lived. Multiple professionals reflected about the experiences of women leaving reserves to move to the city. They noted that, on one hand, women leaving reserves often lose their positive support networks, which can heavily impact their mental health. On the other hand, the tight-knit nature of small communities can also adversely impact mental health when the communities experience detrimental social dynamics. As one professional (a nurse), commented:

> **[Because of the legacies of] residential schools and colonization … reserves [are not always] healthy environments. … Living together [in a community can be good, but] there has to be that healthiness there. … Living in a small town … where everybody knows everybody's business … can make it harder to live in that type of environment.**

Negative dynamics were also cited in urban communities, where Aboriginal women can also be impacted by community-level poverty and crime, in addition to racism.

NEGATIVE RELATIONSHIPS

Almost all of the women spoke at length of negative relationships with past or present intimate partners. Physical, sexual, verbal, emotional, and financial abuse came up repeatedly in the women's interviews, as well as the professionals' interviews. Other difficult relationship dynamics, such as infidelity, strained communication, and immature or irresponsible behaviour on the part of the partner, were also cited by participants. Many women were no longer in a relationship with their baby's biological father; his absence was generally deemed as positive by these women, in light of the negative nature of their relationship. However, the women still expressed regret at the lack of partner support in their lives. As one woman explained:

> **A lot of the time I wish my baby's Dad was part of it. He's not so I'm basically doing this on my own. … [I feel lonely] when she's kicking, like at nighttime. I sleep by myself, you know, and I see all these couples, with the Dad being there and feeling the kicks and, you know, worrying and stuff like that. (Chuckle) It's having the partner there – that's what I kind of want, but [I don't have that].**

Professionals also noted that many of their pregnant Aboriginal patients or clients did not have their baby's father in their lives. One professional (a family counsellor) speculated that the men were abandoning their pregnant partners out of fear of being a father, due to themselves hailing from homes where fathers were not present:

> **Usually [the male partners] are not there. They're just scared and they're gone or maybe they just didn't want to be there because, you know, there's going to be a baby coming and they're not ready to go there: 'I don't know how to be a Dad. No I didn't want to be a Dad. Now I gotta be a Dad. Oh, I'm outta here. I don't know how to do that.' … Maybe they're just not prepared [because] … they probably had similar family backgrounds.**

A lack of positive friendships, or the existence of negative friendships (i.e., built around unhealthy activities like partying, drinking, or drug use) were also discussed by the women and professionals as a contributor to poor mental health. Many women described having to cut off negative friendships once they found out they were pregnant, since they could no longer do things like party or drink; such a decision left them lonely and isolated, without support or camaraderie of any kind.

Negative relationships with family members also came up repeatedly in both the women's interviews and professionals' interviews. Dynamics described in this regard ranged from abusive (including physical, sexual, verbal, emotional, and financial abuse), neglectful, and exploitative, to otherwise not supportive or nurturing. Family members included parents, siblings, grandparents, aunts, uncles and cousins. Family members of intimate partners were also cited.

Negative interactions with neighbours, community members, and colleagues at school or work were mentioned in the interviews. Racist comments from non-Aboriginal persons were also cited. Finally, negative relationships with health and social services providers were described as having a particularly severe impact on wellbeing. The women described instances of experiencing stigma, judgment, or having otherwise unhelpful interactions when seeking services. Professionals described witnessing or overhearing their colleagues speak or behave in ways that were clearly judgmental; they expressed concern about the impact on the wellbeing of the patient or client. As one professional (a physician) stated:

> **Patients aren't stupid. They can recognize when someone's judging them for the circumstances they are in. … The interaction [between service-providing professional and patient or client] is, in my opinion, key to an effective therapeutic relationship. So [when I] see these kind of underlying … prejudiced ideas [among service-providing professionals], I think [they] have an impact on patient care.**

SOCIOECONOMIC FACTORS

Socioeconomic factors are major risk factors for depression at any time of life, in any population. These include low income, low education, and unemployment, and the corresponding problems of food insecurity, housing insecurity, and financial insecurity. One woman described spending an extended period of time at a crowded homeless shelter during her pregnancy, followed by living temporarily with her partner's family, who emotionally abused her. She identified her housing insecurity as a major source of stress in her life. Another woman described how she was dependent on food banks to feed herself and her family, and was concerned about getting adequate nutrition during her pregnancy.

For some women, financial insecurity was an ongoing issue in their lives; for others, it was brought on by pregnancy and the prospect of another mouth to feed. In the case of one woman, her considerable morning sickness led her to reduce her work hours, leading to financial strain: "[My] stressors [include] financial [stressors]. After I slowed down at work I wasn't making enough to pay my bills and I was getting last notices for rent and utilities and stuff." Her reduced work hours also led to considerable conflict with her boss, who was unhappy about her reduced availability and impending maternity leave – further compounding her stress levels.

Pregnancy and parenting can interfere with school or career progress, as described to us by multiple women who were working and/or students. In addition to impacts on current and future financial security, the corresponding stress and uncertainty can also significantly impact wellbeing.

Negative coping mechanisms

We heard in the interviews about ways in which pregnant Aboriginal women cope with stress and negative life factors. Negative ways of coping can exacerbate or amplify (that is, make worse) the pathways in Figure 1. These include maladaptive coping strategies such as substance abuse, gambling, and violence. These also include a lack of positive coping mechanisms, which are things like self-esteem, social support, optimism and hope, and a sense of identity.

Substance abuse and addictions came up repeatedly in the women's interviews and professionals' interviews as negative coping mechanisms to stress. Professionals reflected that abuse of substances such as alcohol, cigarettes, marijuana, or other illicit drugs might be "an easy escape for the time being" for women in highly stressful or traumatic circumstances. Some professionals suggested that, in their experience, women often made a conscious attempt at stopping alcohol consumption upon finding out that they were pregnant; cigarette-smoking, on the other hand, might be harder for women to give up, because it may be "all they have to cope" – particularly if they have eliminated alcohol or other illicit drugs due to their pregnancy.

The women described how they abused substances in an attempt to cope with overwhelming life circumstances. One woman spoke of how she turned to alcohol after a series of traumatic events in her life:

> **I turned to alcohol. I started drinking heavily after that. [It] was really a hard time in my life. I just pretty much gave up on everything. … I just gave up. I was mad at the world, I was mad at my family. I just didn't care.**

Substance abuse, however, inevitably worsened life circumstances, leading to more despair and worse mental health for the women. In the case of the woman quoted above, her alcoholism led to her children being taken away from her by child welfare authorities. Another woman described finding herself in a vicious cycle of worsening binge drinking and depression:

> **I was drinking [when I] was in a bad depression, and it just kept leading me to binge drink, and then that led to more depression.**

Thus, negative coping mechanisms such as substance abuse appeared to exacerbate the pathways leading to depression, as depicted in Figure 1.

One woman explained how she was able to break free of her addictions when she learned healthier ways of coping:

> **Before, … when I was mad or angry, I would turn [right away] to alcohol or drugs. … [I] used to drink by myself. … Now, when I'm mad or stressed out, I talk about it [with family or friends].**

Thus, negative coping mechanisms such as substance abuse appeared to be used when positive coping mechanisms were lacking for the women.

Positive protective factors

Both the women and professionals pointed out that, while a lot of focus is placed on the negative circumstances underlying Aboriginal women's lives, it is also important to note the resilience and strength displayed by many Aboriginal women. Adjectives like "strong", "proud", "innerly beautiful", and "courageous" were used in the interviews to describe Aboriginal women who effectively cope with, and overcome, their circumstances. While diverse stressors exist in Aboriginal women's lives, not all women become clinically depressed; and, of those who do reach the point of clinical depression, some are able to recover more readily than others. The women and professionals discussed a number of protective factors that serve as buffers along the pathways connecting negative life factors, stress and trauma, and depression; in other words, these factors can stop depression from happening or help to make it less serious.

As with the negative life factors, positive protective factors appear to intersect with each other in complex ways. While these factors have been grouped into four categories below and in Figure 1, the categories overlap substantially.

Healthy mind, body, spirit

Interview data suggested that key to resilience in the face of difficult circumstances is the maintenance of a healthy mind, body, and spirit. Of course, negative life factors can make maintenance of such a state difficult. Even in the face of other negative circumstances, socioeconomic security and positive life events (even small positive occurrences) can help facilitate the practical and psychological resources required to remain resilient, and act as protective factors against depression.

The women reported various positive coping strategies used in the face of stressful circumstances to maintain a healthy mind, body, and spirit. "Keeping busy" through activities like housework, schoolwork, or employment work was cited by multiple women as a way to "keep [one's] mind off things"; in other words, use of distraction to avoid ruminating about difficult life circumstances. Accomplishing tasks, even small housework tasks, was cited as a way to feel emotionally better, even if only temporarily. Other activities enjoyed by the women included reading, sewing, traditional beading, and crafts. Making time to relax and getting enough sleep were also listed as protective by the women and professionals, as were activities such as walking, running, yoga, and other forms of exercise. A healthy diet was similarly cited as contributing to wellbeing, and thus protective against depression.

The women spoke of coping cognitively with stress by keeping a positive outlook and remaining optimistic, calmly rationalizing through difficult situations ("take a step back"), and learning to "calmly … walk away and … let it be" when dealing with difficult individuals. Maintaining a sense of humour was also cited ("laughter is sometimes the best medicine"). Some women learned these skills through mental health and/or addictions counselling, highlighting the role of programs and services in facilitating positive coping skills. Others learned the importance of positive thinking from Elders or other spiritual leaders. As one woman explained:

> **Like the elders always say, when you put your mind on good things, then good things will come. [The] Creator has a way of, the Universe has a way of, working it out. You gotta know where you're going, who you're going with, and where you come from.**

The women and professionals noted that spirituality helps some women maintain a positive outlook. The approaches to spirituality and prayer do not need to be grounded in organized religion; one professional (a nurse) described spiritual components to programming at her organization that avoided reference to specific religions, to ensure comfort of all. A few women described themselves as practising Christians, and engaged with spirituality through attending church and reading the Bible. Others engaged in traditional Aboriginal practices such as smudging, sweatlodges, powwows, and other ceremonies. One woman, who overcame significant traumatic life events in her past, described how she found peace in the spiritual significance of the prophesy of the White Buffalo. Thus, her spirituality and connection to traditional Aboriginal healing approaches were helping her to find peace with the difficult circumstances of the past, and remain optimistic for a healthier future – both for herself, and for her First Nations people.

Finally, multiple women spoke about how they drew confidence from their identities as Aboriginal women, citing the "rich cultural heritage" and "the connection with the Creator". One woman stated:

> **I feel proud to be Aboriginal because there's no one like us [and] the culture is beautiful. I'm pretty proud and I wouldn't want to be anything else, even though we go through so much as people.**

The strength shown by Aboriginal women to overcome obstacles was also cited by some of the women we interviewed as sources of pride. As one woman explained:

> **Aboriginal women are starting to stand up for themselves and stand up for other Aboriginal women and be independent and do things on their own.**

Healthy relationships

The women and professionals spoke of the importance of positive relationships with intimate partners, family members, friends, neighbours, coworkers, and service-providers. Emotional and practical support from others was cited as key mechanisms for coping positively with negative life factors. Spending time with pets was also mentioned by a couple of the women as being a stress-reliever in their lives. In regards to healthy relationships, one woman expressed:

> **Relationships are a really big part of life and having good relationships can make you or break you. If you're in a positive environment with good relationships, then you tend not to be depressed.**

In the context of pregnancy, relationships with older women who have experienced pregnancy and parenting, or peers who are going through such experiences concurrently, were cited by the women and professionals as particularly important. One professional (a prenatal nurse who serves many Aboriginal patients in her work) described how she saw herself as “a mother and grandmother” to her patients, in addition to being their nurse. She explained that because of residential school trauma, many of today’s pregnant and parenting Aboriginal women do not have positive relationships with their mothers and grandmothers; accordingly, she finds herself dispensing pregnancy and parenting advice that normally would have come from a woman’s own mother or other older female relatives. Professionals involved in group-based prenatal education programs noted the camaraderie that often develops among program participants, who bond over their shared experiences and reach out for mutual support. One woman explained the value of such relationships:

> **When they’re going through the same thing as me, or they have gone through the same thing as me, it definitely helps that they understand a little more.**

In addition to seeking out positive relationships, avoiding negative relationships was also described as protective by both the women and professionals. Multiple women described how they broke off friendships built around unhealthy activities such as alcohol or drug use, so as not to get enticed into such unhealthy activities during their pregnancy. Professionals shared anecdotes of female Aboriginal patients or clients whose pregnancies led them to re-evaluate difficult relationships with their intimate partners, and “set limits” on what they would tolerate. Such steps promoted wellbeing by reducing sources of stressors in the women’s lives.

Healthy environments

The women and professionals spoke of how positive physical and social environments – places where women live, study or work, seek programs or services, or otherwise spend time – can help buffer the impact of negative life events. Positive physical environments were described in the interviews as those that allowed women to feel safe, secure, and comfortable, and that permitted easy access to resources (e.g., close proximity to transit, grocery stores, health and social services).

Positive social environments were described as involving positive interactions with others, as well as positive attributes that permitted women’s psychosocial wellbeing. These included positive interactions with colleagues at school or work, wherein the women felt respected, supported, and appreciated. The women used words like “tight-knit” and described moments like “having tea together, just talking” to describe positive social connectedness in their neighbourhoods and home communities. Some women spoke of traditional language and culture binding community members together; they expressed a desire for their children to learn the language and culture, in order to be a part of that connection. One woman described rallies and walks for suicide awareness that occurred in her home community, where suicide rates were high:

> **[It was] inspiring because a lot of young kids that [were] suicidal came out and signed pledges not to [commit suicide]. Just seeing all the kids be happy for the day was good enough, you know? [My community] is plagued with suicide, … there’s a funeral every week or something. That’s the negative part of our community. But the positive part is when the people come together.**

Thus, even in communities with difficult dynamics, positive social interactions can make a difference.

Barrier-free, effective, and culturally safe services

Finally, health and social services that are easy for women to access, that meet women's needs, and where women can feel comfortable, safe, and respected are also important protective factors. Cultural safety is a concept that, when applied to service provision, refers to the patient or client being made to feel empowered and respected. When patients or clients feel this way, they are more likely to benefit from the service and continue to access it. Further discussion in this regard is offered in the next section, and also in the Recommendations section of this report.

Services in Calgary and area

We asked both the women and professionals about how they felt services (both health and social services) in Calgary and the surrounding area are doing in terms of meeting the needs of pregnant Aboriginal women. A number of key points arose from the interviews. Some services were described as effective and meaningful in giving pregnant Aboriginal women the information, tools, resources, or care they need. More Aboriginal-specific services, however, were requested by the women, particularly as a way to meet other Aboriginal women with shared experiences. As one woman articulated:

> **I can't really think of any other Aboriginal programs that I could attend, like you know just for Aboriginals to come and be together and you know just talk and bring your babies like, there's none of that.**

Other Aboriginal-specific services requested included Elder support, designated spaces in clinics and hospitals for cultural healing practices such as smudging, and support for incorporating traditional Aboriginal perspectives on healing into services.

Barriers to access of services included issues not specific to Aboriginal peoples, such as hours of operation, childcare needs, and transportation constraints. The women who were pursuing education or employment noted the difficulty of attending appointments scheduled during business hours. As one woman explained:

> **I [go for the] latest appointment just so I don't have to take too much time off work. … I'm sure not going to miss work [because] I'm still on probation [at work].**

Both women and professionals cited childcare availability as a barrier to seeking services and to attending medical appointments. One professional attending the community gathering suggested that widespread availability of childcare at all services (health and social) for families was warranted, but that funding was required:

> **As an organization, if we had specific, dedicated funding for childcare, I think that would be helpful. Like we have some programs where we can do that, but I think every program that serves … mothers as clients should or could have childcare … provided.**

The need for services to be easily accessible by transit was highlighted by multiple women, who cited impediments to travel such as Calgary's cold winters, being accompanied by small children, and the physical discomforts of pregnancy: "especially being big and pregnant and tired, … you just want to be able to get there and go back." Similarly, a need was cited for services to be available throughout the city, so that women could access resources within their local areas. As one woman stated:

> **You know a lot of resources right now are way [on the other] side of town which is so difficult to get there (chuckle). … I think there should be more places where you could go ask for help. I haven't found anything yet right now [in my area].**

The women spoke of experiences with negative, judgmental service-providers, and also of feeling like they could not always trust service-providers to genuinely care about their needs. One woman gave an example of a time she declined accessing services because of this distrust:

> **When I was fifteen I was physically and sexually abused. I suffer from severe depression from that. I wasn't diagnosed, though, because I refused to go see a doctor. … I didn't want to talk to a stranger, because I've had it in my head that they were only doing it for the money. They didn't really care about how I actually felt. They didn't really care that I was actually hurt.**

Professionals also acknowledged the existence of racism, stigma, and judgement in service systems. They shared examples of such behaviour among their colleagues, occurring notably behind the backs of patients or clients. One professional (a nurse) gave the following example:

> **There was a patient who was a young Aboriginal woman with a toddler that was crying quite a lot, it turned out to have an ear infection, and so she's sort of pacing around, it's quite a large waiting room, with the toddler. And [my colleague] comes to me, speaking sternly, and says, "I've got my eye on that patient, they're sneaky you know" and then I realized she meant because she was Aboriginal. And she's speaking sternly, says "All of a sudden you'll probably see her drinking the hand sanitizer" or something like that.**

There was particular concern expressed about child welfare policies. The women felt that child welfare policies were not working in the best interest of children and families. One woman described her frustrations with the system:

> **I get really frustrated sometimes with the system. [Child welfare authorities are] judging me over what is written [about my past behaviour]. That's not right – they should actually get more involved with the parent and talk to them face-to-face, one-on-one, to understand what they've been through and what they're going through and why they did the things that they did in life. … It's our kids suffering for it, for being stereotyped. … There's nothing we can do to change [the past] but it's good to know [about it] so it can help the parents change in the future.**

Another woman explained how fear of child welfare authorities led her to avoid accessing certain services: "You know that's not right for them to [do], for families to go there and end up getting their kids apprehended, [but that's what happens]."

Professionals expressed similar concerns about the child welfare system not doing enough to support parents who are struggling to care properly for their children. One professional (a nurse) expressed frustration:

> **It drives me nuts [that] they're willing to put a baby in foster care and pay for the foster parent to have a baby … [but] they're not willing to give [the birth mother] a dime to help her, or to provide a safe place for Mom and baby to learn and [get support]. The supports are just bad.**

Professionals expressed a need for better training and resources in order to create a safe, stigma-free environment. In both the personal interviews and in the focus-group-style discussions at the community gathering, it was emphasized that many professionals have little understanding of colonization and intergenerational trauma (or, for that matter, personal trauma). One professional (a counselor), who was herself Aboriginal, exclaimed:

> **Colleagues that I work with … do not know their history, don't know about the Treaties, don't know about residential school, don't know about the sixties scoop. Don't know about the whiskey traders. … Alcohol use … wasn't a part of our culture, … it's such a big thing now because it's a learned behavior.**

Professionals also expressed an interest in knowing how to make services more accessible, and how to help patients or clients make it to appointments or programs.

Finally, professionals were almost unanimous that better networking is needed between services, to ensure continuity of care and to ensure that no one slips through the cracks. Some professionals who work at non-profit agencies raised the issue of having to compete for funding as a major barrier to cooperation with other agencies. Multiple professionals raised the issue that much of service delivery is oriented towards managing acute, emergency situations, such that the underlying issues in women's lives do not generally get addressed. Multiple professionals (notably physicians) spoke about how they wished they could do more in this regard, but were limited by the very specific job they had the training and capacity to do. They felt that better networking and a stronger system of referrals between services would help professionals to connect the patients or clients with appropriate help for such other issues.

Pregnancy as a meaningful intervention point

Some women described their pregnancy as a motivation for positive change in physical health behaviour; the women reported making efforts to improve their diet, get more exercise, and give up alcohol and drugs for the sake of their baby's health. The women also reported that their pregnancy helped change their attitudes and perspectives, improving their mental wellbeing and helping them to seek more positive coping strategies. One woman explained how "it took [getting] pregnant [for her] to realize" that she needed to stop drinking and "take a different route" to coping with stress and trauma. She realized that she needed to take better care of herself for the sake of her children:

> **Mentally … you're on a whole different level. Before I was pregnant I, I was only thinking about myself. [But then] this little person comes into your life and it's different. It makes you see the world differently. I think about death a lot [because] I don't want to leave my son behind.**

Another woman spoke of how her baby "saved her":

> **I dealt with depression a lot of years. I'm finally feeling better. I finally feel like I have a purpose in life now. [My baby] pretty much saved me, she's the reason I'm still here. She keeps me motivated.**

The women reflected about motherhood in light of their complex, often difficult, relationship with their own mothers. One woman reflected how her pregnancy has helped her to forgive her mother for not being a good parent to her:

> **Pregnancy has been an emotional time for me. … For a long time I really hated my mom and was mad at her. But now I have a better understanding of what she experienced [in residential school]. … You have to be empathetic and be the bigger person and end the cycle of abuse.**

This woman spoke about feeling blessed to be pregnant, because it was giving her the chance to break the cycle of trauma in her family:

> **My mom, because she was in residential school, didn't know how to be a mom. I feel really blessed that I can [now] be a mother and [do things differently], and be present in my baby's life. [My pregnancy has been] a healing process for me.**

Professionals spoke about how pregnancy can be a key intervention point for health and wellbeing because pregnancy leads to increased contact with health services, thus creating opportunities for meaningful interventions. However, professionals also noted that, in some cases, pregnancy may discourage women from accessing services; they spoke of cases where women are afraid of being judged for their lifestyle (e.g., addictions), or afraid that contact with services will lead to their baby being taken from them. Thus, while women may be more motivated to make positive life changes during pregnancy, health and social services systems need to address the above fears in order to successfully facilitate access and benefit from programs and services.

SUMMARY OF RECOMMENDATIONS

The determinants of prenatal depression in Aboriginal women are diverse and complex; like many population health issues, they warrant a multi-pronged, multi-sectoral approach to adequately and effectively address them at both individual and population levels. As can be seen in Figure 1, the points along the pathways at which the negative coping mechanisms can exacerbate development of depression are also the points at which protective factors can act to buffer the development of depression. Thus, despite the complexity of contributing factors, scope for intervention and prevention does exist. Some recommendations are offered below. While specific examples have been cited where possible, it is clear that further research is required to better understand how to best execute these recommendations. Moreover, the best means of acting on these recommendations will vary based on local context.

Addressing social support

The results of this study corroborate other research that has shown the significance of social support as a protective factor against depression. The importance of social support from the intimate partner, and from peers (other pregnant and parenting Aboriginal women), were strong themes in the results. Accordingly, interventions that facilitate social support from these sources are warranted.

- Programs targeted to Aboriginal fathers-to-be may help facilitate their role in positively supporting their pregnant partner, and in playing a positive role in parenting after the birth. Programs targeting other Aboriginal males significant in pregnant women's lives (e.g., her father, uncles, brothers) are also warranted. Such programs would serve to counter the damage that colonization, assimilation, and intergenerational trauma have inflicted vis-à-vis the role of Aboriginal men in families (Manahan & Ball, 2007).

- Similarly, interventions that help foster positive relationships between pregnant Aboriginal women and their own mothers and/or mothers-in-law would also help to expand availability of social support.
- Aboriginal-specific group-based prenatal and parenting programs may help Aboriginal women to meet and draw mutual peer support in healthy environments, addressing the striking lack of positive friendships reported in the interviews. Multiple women and professionals suggested doing an Aboriginal version of Best Beginnings, a prenatal education program offered under Alberta Health Services. Another program mentioned in the interviews that could be adapted specifically for Aboriginal women was Centering Pregnancy, a group-based model of prenatal care (McNeil et al., 2012).

Addressing practical barriers to service access

Several practical barriers were raised in the interviews. Potential actions are as follows:

- Given the concerns expressed around hours of operation (from women's interviews) and high rates of missed appointments (from professionals' interviews), recommendations might include having longer hours of operation (including evenings and weekends), and having services that are drop-in rather than appointment-based.
- Additional targeted research is warranted to examine specifically if Aboriginal patients or clients access services less often, and if so, why; and to examine if they miss scheduled appointments more often, and if so, why. The goal would be developing concrete actions to address the issues.
- Given concerns expressed around patients or clients 'slipping through the cracks' between referrals, it is recommended that procedures be implemented to follow up women and ensure continuity of care across referrals. Suggestions offered in professionals' interviews included things like having a single point of entry (i.e., centralized access to services) to enable follow up, and the use of electronic records that 'travel' with the patient or client. Further research to examine possible solutions is required.
- The need for better networking between services, within and across the various health and social service sectors, came up repeatedly in the interviews. Many of the service-providers expressed frustration about the current systems that remain fairly fragmented in practice. Better networking, coupled with a stronger system of referrals and care coordination, may allow women to receive more holistic support. Other institutional barriers and reasons for 'slipping through the cracks' also need to be identified and addressed.
- Better transportation arrangements are recommended to assist patients or clients to access services, particularly for women living on reserve who need to access services in the city. Childcare considerations are also important for pregnant and parenting populations seeking services. Programs where the service-providers go to women's homes might be considered.
- The need for more accessible culturally-appropriate services came up frequently – for example, better availability of Elders, and of opportunities to engage in traditional Aboriginal cultural practices aimed at healing and wellness.

Addressing stigma and lack of safety in health and social services

In service delivery, there is need to create a safe, stigma-free environment where patients or clients can feel comfortable and respected. Cultural competency refers to the ability of service-providers to work effectively across cross-cultural settings (NAHO, 2008). Cultural safety focuses on structural inequities stemming from various sociocultural factors, and the resulting power differentials in relationships – particularly that between service-providers and patients or clients. Cultural competency and cultural safety are particularly important when working with Aboriginal patients and clients, given the lack of trust that stems from the fact that Aboriginal peoples' historical relationship with health and social services is entrenched in colonization (NAHO, 2008; ANAC, 2009, Roy, 2014).

- In their interviews with us, multiple professionals called for better training in this regard. Training in cultural competence and cultural safety should be considered in both initial education of new professionals (including, but not limited to, physicians, nurses, and social workers), and in continuing education of already-working professionals. Training of service-providers needs to include concrete steps that can be followed in the context of the work that they do (e.g., training on how to communicate better, how to frame questions in an appropriate way, etc.). If simple, concrete, actionable steps are not offered as part of education on these issues, service-providers may be left feeling uncomfortable, ill-equipped, or defensive. Training should address their specific concerns around how to pragmatically execute culturally competent and culturally safe care. For example, there may be a fear among service-providers of coming across as discriminatory if questions to patients or clients appear to correlate with stereotypes. Thus, training on communication is essential, particularly on how to broach sensitive topics. Additionally, there may hesitance on the part of service-providers to ask about life issues, because they are not necessarily trained or prepared to address disclosures if/when they occur. Thus, better training on the response to disclosures, and better networking between resources (for referrals), are warranted.
- That many health and social services professionals have limited knowledge or understanding of the history of colonization, of residential schools and its intergenerational impacts, and of issues such as racism and sexism was discussed in both the professionals' interviews and in the community gathering focus-group-style discussions. In this regard, a theme that emerged from the analysis of the interviews was that of a tension between individual-level service provision and population-level understanding of Aboriginal health. Better training on how practitioners should apply the latter to the former may help. A population-level understanding of Aboriginal health allows a comprehension of context for the higher rates of health and social problems in Aboriginal communities. It should not be used to judge or stereotype individual patients or clients, though it may offer context on some of the problems that individual patients or clients may be facing.
- In addition to training professionals, implementation of cultural competency and cultural safety should be considered in other aspects of health and social systems, including the physical environment of clinics or offices (e.g., messaging in posters and pamphlets displayed in waiting areas), training of support staff, and availability of culturally-appropriate services such as Elder support and traditional healing practices.

- Many of the women we interviewed expressed concerns around service-providers reporting suspected child abuse and neglect to authorities; the women said the above dissuades them from seeking services, due to fear of losing children as a result. The disproportionate number of Aboriginal children in the care of social services supports their fears. Positive, strengths-based, culturally appropriate and culturally safe care around pregnancy and parenting, and attention to healing intergenerational trauma, could address these concerns.

Addressing trauma, addictions, and mental health issues in health and social services

Mental health issues, addictions, and a history of trauma are often correlated. Pregnancy may galvanize positive life changes and present new opportunities for intervention around these issues. A positive, loving, accepting environment in which a pregnant woman's strengths are recognized and complimented, and in which her pregnancy is celebrated, can go a long way in promoting good mental health during pregnancy. Taking a positive, culturally safe, and strengths-based approach in service-provision is thus recommended.

- Aboriginal women may be at increased risk for mental health concerns. A number of studies regarding prenatal mental health in the general pregnant population have called for the implementation of routine screening of *all* pregnant women for symptoms of depression and anxiety (Milgrom, & Gemmill, 2014; Stuart-Parrigon & Stuart, 2014). Screening all women during clinical or social service encounters (and communicating at time of asking the screening questions that all women are routinely screened) could decrease concerns around stereotyping Aboriginal women.

- Similarly, implementing screening practices during clinical or social service encounters for *all* women about domestic violence, social support, substance use, etc. – and explaining to patients or clients at the time of screening that these are routinely asked of all women – would also increase the comfort level of both practitioners and patients or clients around these sensitive topics. Screening must, however, be accompanied by the availability of appropriate, culturally-safe services to address disclosures.

- In terms of treating clinical depression in pregnant Aboriginal women, psychotherapeutic approaches should be applied in ways that reflect an understanding of context; recognition of what is culturally appropriate, recognition of intergenerational trauma and the legacy of colonization, and recognition of multiple sources of personal trauma, for example, are all important in order for counselling to be successful.

- Given the prevalence of trauma in the experiences of Aboriginal women, a trauma-informed approach to all services is warranted. A trauma-informed approach to care is one which recognizes the role of trauma to a patient's health or life issues, supports healing from trauma, and avoids re-traumatization (Arthur et al., 2013; Elliott et al., 2005; Klinic Community Health Centre, 2013). The results of this study suggest that more needs to be done to address the trauma underlying substance abuse, mental health problems, and poor parenting issues among Aboriginal women. The above applies particularly in the context of the child welfare system.

Addressing the social determinants of health and underlying societal context

Multiple professionals spoke about how much of service-delivery is oriented towards managing acute, emergency situations, such that the underlying issues in the women's lives do not always get addressed. Given the key role of the social determinants of health, interventions that address the negative life factors that are the sources of chronic stress in women's lives are warranted. Moreover, the underlying societal context that drives such issues is also important to address. Ultimately, meaningful and enduring primary prevention necessitates targeting these upstream structural and systemic factors through population-level programs and policies that bridge multiple sectors.

- Poverty, food insecurity, housing insecurity, lack of education and employment opportunities, inadequate childcare, and negative physical and social environments in communities all influence mental wellbeing, and need to be addressed through systemic change.
- Racist and sexist attitudes and stereotypes among the general population about Aboriginal women need to be actively challenged.
- Interventions aimed at addressing domestic violence in Aboriginal communities are required – including support and protection for victims, interventions for perpetrators, and initiatives for primary prevention that include challenging its normalization. Homefront, a special court in Calgary, has piloted a culturally appropriate, community-based program for women, men, and children with experiences of domestic violence. It could be further tested as a sustainable model (Homefront, 2012).
- Nearly all of the women we interviewed reported having one or more relatives who attended residential schools, including parents, older siblings, uncles and aunts, and grandparents. The intergenerational impacts of residential school attendance are well documented, and need to be addressed with individual-level, family-level, and community-level interventions aimed at healing. The Aboriginal Healing Foundation has published extensively on the topic of interventions to address intergenerational trauma (Aboriginal Healing Foundation, 2006).

CONCLUSIONS

The *Voices and PHACES* study sought to address a key gap in the research literature concerning the determinants of depression during pregnancy in Aboriginal women. We hope that the key results summarized in this report, the framework illustrated in Figure 1, and the list of recommendations provided offer a meaningful contribution to efforts to provide appropriate, effective, and evidence-based services for pregnant Aboriginal women. We are particularly hopeful that the academic-community collaborations established for this study will enable further research and action on this topic.

Despite significant forces of oppression and continued marginalization, Aboriginal individuals and communities – and Aboriginal women in particular – have shown considerable strength and resilience. Drawing on this strength and resilience to facilitate healing is important to addressing prenatal depression and other pressing public health issues affecting Aboriginal populations.

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APPENDIX: CHARACTERISTICS OF STUDY PARTICIPANTS

Pregnant Aboriginal women

Thirteen pregnant Aboriginal women participated in the personal interviews. Eleven of these women identified as First Nations with status, one identified as First Nations without status, and one identified as Métis; none were presently living on a First Nations reserve. Most were in their 20s, but ranged in age from 22 to 45 years. Seven women had at least one other child; for these women, age at birth of first child ranged from 15 to 21 years old. Of these seven women, three had none of their kids living with them due to removal by child welfare authorities.

Of the 13 women, one was legally married, three were living common-law, and the rest were single (never married). Three were employed full-time, one was employed part-time, two were students, and the seven others were not employed. Six had not completed high school, four had earned their high school diploma, two had a trade certificate or completed apprenticeship training, and one had completed a university degree. Three had household incomes at or over $40,000, and 10 had less than $40,000; of those 10 women, seven had incomes less than $15,000.

Of the 13 women, eight self-reported experiencing symptoms consistent with the clinical definition of depression at some point in their lives, and two of these indicated it was during a previous pregnancy or postpartum period. Five had been formally diagnosed with depression, and four of these had received some sort of treatment for it. As part of the interview, women were administered the Edinburgh Postnatal Depression Scale (EPDS), a commonly used screening tool for depressive symptoms in pregnant and postpartum women. Of the 13 women, six scored 10 points or higher on the EPDS, indicating probable clinical depression; two of these six scored higher than 13 points, indicating a high probability of clinical depression. Of these six women, only one had been told by a health professional that she was depressed.

When asked whether they had family members who had experienced depression, six women indicated yes, four indicated no, and three indicated that they did not know. Of the six who said yes, four indicated that the family members in question had been formally diagnosed by a health professional. Of the 13 women, six had family members who had ended their lives by suicide.

Service-providing professionals

Twelve service-providing professionals participated in personal interviews. Most (11) were female, with one male. Most (11) were non-Aboriginal, with one Aboriginal participant. Participants ranged in age from about 25 years old to about 55 years old. Professions were as follows: two family support workers, one dietician, one family counsellor, one residential counsellor, three nurses, three family physicians, and one obstetrician-gynaecologist. The length of time in their current employment position ranged from six months to 20 years. The number of pregnant Aboriginal women seen in a typical month ranged from zero to 60.

Stakeholders at community gathering

Eleven stakeholders attended the community gathering. Two were First Nations Elders, and one was an Aboriginal woman who had participated in the study as an interviewee during her pregnancy. The remaining attendees were either frontline professionals, or managers or administrators, from various health clinics and social service agencies in Calgary.