

URBAN INDIGENOUS MENTAL WELLNESS: CITIES, CULTURES, AND BELONGING

by

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DEDICATION PAGE

This work is dedicated to the many Indigenous peoples of this land and the process of reconciliation, which is long overdue. My intent is to uphold my personal responsibility as a settler to read, learn from, listen to, and support the voices of those whose stories and experiences have been silenced in their own homes and on their own lands.

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ABSTRACT

There are deep disparities between the mental health outcomes of Indigenous and non-Indigenous peoples in Canada. Rates of depression and distress are considerably higher among Indigenous peoples than in the general Canadian population. Researchers have offered several possible explanations for these mental health outcomes, including the negative impacts of residential schools, the structures of colonialism more broadly, and poor access to mental health services. Utilizing a strengths-based approach, this study analyzes data from the 2012 Aboriginal Peoples Survey (APS) and 2010 Urban Aboriginal Peoples Study (UAPS) to look at the impact of cultural connectedness on mental wellness for Indigenous peoples living in Canadian urban centres. Bivariate and linear regression modeling do not show a positive relationship between cultural engagement and mental wellness within the APS and point to the need to reassess measures of “culture” and “identity” through analysis of univariate and bivariate probes of the UAPS.

LIST OF ABBREVIATIONS USED

AFN	Assembly of First Nations
APS	Aboriginal Peoples Survey
CA	Census Agglomeration
CMA	Census Metropolitan Area
IHIG	Indigenous Health Interest Group
IRSS	Indian Residential School System
OCAP	Ownership, Control, Access and Possession
UAPS	Urban Aboriginal Peoples Study

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CHAPTER 1 INTRODUCTION

There are deep disparities between the mental health outcomes of Indigenous and non-Indigenous peoples in Canada. Conventional measures, for instance, such as rates of depression for off-reserve Indigenous peoples are higher than for non-Indigenous people (Tjepkema, 2002) and self-reported distress is considerably elevated among First Nations adults living on-reserve compared to the general Canadian population (Bombay, 2015). Researchers have offered several possible explanations for these poor mental health outcomes, including social determinants such as low incomes, low educational attainment, and unemployment (Cooke, Woodhall, & McWhirter, 2013), the negative impacts of residential schools (Bombay, 2015; Elias et al., 2012), ongoing institutional colonialism more broadly (Kirmayer, Brass, & Tait, 2000), and poor access to mental health services (Boksa, Jooper, & Kirmayer, 2015; Talaga, 2018).

However, Indigenous scholars encourage researchers to shift the analysis of mental health outcomes of Indigenous peoples to include consideration of cultural and spiritual influences that could possibly protect personal and communal mental wellness (Brough, Bond, & Hunt, 2004; Health Canada, 2015). Considering the health disparities among Indigenous peoples, research has tended to focus on deficits in Indigenous communities. By incorporating a strengths-based approach, research can create a more robust dialogue and understand the ways in which Indigenous communities have remained resilient in the face of colonialism and marginalization. Considering the protective influence of cultural connectedness in mental wellness research has been shown to add valuable variation in mental health outcomes (Auger, 2016; Chandler & Lalonde, 1998; Health Canada, 2015). Broadening the scope of Indigenous mental health research means considering vital elements that could protect mental health as well as

understanding what Indigenous mental health looks like for those living outside of reserve settings.

Little scholarly attention has been given to the mental wellness of Indigenous peoples in urban areas or to the cultural expression and community development of Indigenous peoples in cities (Hill & Cooke, 2014). With more than half of Indigenous people in Canada living in cities (Statistics Canada, 2017), there is a growing need for attention to be given to the experiences of urban Indigenous peoples. Urban Indigenous communities are more socioeconomically, politically and culturally diverse than those on reserves (Andersen, 2013; Baloy, 2011; Hanselmann & Gibbins, 2003; Norris, 2011), making them a distinct population with potentially different mental health and cultural experiences than people living on reserves or in rural areas. It is a population largely overlooked in current research and policy.

My Master's research will begin to address this gap by looking at the impact of cultural connectedness on mental wellness for Indigenous peoples living in Canadian urban centres. Through statistical analysis of the 2012 Aboriginal Peoples Survey (APS)¹ and 2010 Urban Aboriginal Peoples Study (UAPS)², I analyze whether Indigenous cultural participation and identity act as protective factors or buffers for the mental wellness of urban Indigenous peoples in Canada.

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² This analysis is based on the Environics Institute for Survey Research Microdata file UAPS – Main Study – SPSS Datafile – Nov 20-2009 which contains anonymized data collected in the 2010 Urban Aboriginal Peoples Study. All computations on these microdata were prepared by Emma Cruddas and the responsibility for the use and interpretation of these data is entirely that of the author.

I first present a review of the relevant literature in Chapter 2. The literature framework explores urban life for Indigenous peoples in Canada, looks at the state of Indigenous mental health in Canada, considers how cultural engagement can protect mental wellness, includes consideration of social determinants of mental health, considers the negative impact of colonialism on mental health through residential schooling and the erosion of treaty agreements, and finally, touches upon some demographic considerations. In Chapter 3, I lay out the datasets and methods used. Chapter 4 shows analysis of univariate and bivariate results from the APS about mental health, cultural engagement, social determinants, and colonialism. Chapter 5 contains the analysis section for the linear regression models. Chapter 6 unpacks culture and identity measures in the UAPS. Finally, Chapter 7 presents the conclusion to my study. My research ultimately seeks to understand how Indigenous cultural engagement and identity affect the mental wellness experiences of urban Indigenous populations in Canada and to help broaden the literature on urban Indigenous mental health and cultural engagement.

CHAPTER 2 CITIES, CULTURES, AND BELONGING:

A LOOK TO THE LITERATURE

To address the aims of this research, the literature review to follow is broken into six components: Indigenous realities in cities, the state of Indigenous mental health, cultural continuity, structural determinants of mental health, impacts of colonialism, and demographic considerations. This chapter contains four hypotheses regarding the expected effects of cultural continuity, structural determinants, and colonialism on urban Indigenous mental health to be tested in Chapters 3 through 6. To situate this research, I begin by addressing the unique realities of being Indigenous in Canadian cities.

2.1 INDIGENOUS REALITIES IN CITIES

Indigenous populations in cities are on the rise. In 1901, census estimates suggested that about 5% of Indigenous peoples lived in cities; by 2006, more than 50% of Indigenous people in Canada resided in urban areas (Kalbach, 1987; Norris & Clatworthy, 2011; Peters & Andersen, 2013; Senese & Wilson, 2013). Many people refer to the draw of housing, education, or employment prospects as pull-factors for city living (Cooke & Bélanger, 2006). Nationally, over 40% of housing on reserves is in need of repair along with issues of crowding and compromised indoor air quality (Carrière, Garner, & Sanmartin, 2017; Fenwick, 2003). This housing dilemma is often a pull factor for moving to cities (Newhouse & Peters, 2003). Efforts to further education or find stronger labour markets to support family are some of the other most commonly cited reasons for migration to cities (Cooke & Bélanger, 2006; Cooke & O’Sullivan, 2015; Newhouse & Peters, 2003).

However, research suggests that migration into cities accounts for only a small portion of this population change (Senese & Wilson, 2013). The other two key components to this

population growth are fertility rates causing increased births over deaths and changes to Indigenous self-identification (Caron-Malenfant, Coulombe, Guimond, Grondin, & Lebel, 2014; Norris, Clatworthy, & Peters, 2013). Indigenous populations in Canada are younger and growing more rapidly than their non-Indigenous counterparts with fertility rates among Indigenous peoples continuing to be higher than the non-Indigenous population since the 20th century (Morency, Caron-Malenfant, & Daignault, 2018; Ram, 2004; Statistics Canada, 2015). This natural population growth has contributed to the increased rates of Indigenous peoples in cities.

Another particularly important impetus for the increase in urban Indigenous populations comes from variations in self-identification. There are gendered and political reasons for this identification shift, which will be addressed in greater detail in section 2.6 of this chapter. It is necessary to note that the seeming population growth in urban areas is part of broader political contexts and not only in-migration of Indigenous peoples to cities. The diversity, growth, presence, and experiences of Indigenous peoples in cities, however, are part of what makes urban Indigenous populations a thriving group deserving of research attention.

A shared experience of Indigenous peoples in cities is discrimination, which is systemic and disproportionate (Cooke, Woodhall, & McWhirter, 2013). Suppositions about class, education, homelessness, and addiction are some of the most frequently cited judgements made about Indigenous people in cities (Edmonds, 2010; Gyepi-Garbrah, Walker, & Garcea, 2014; Silver, Hay, & Gorzen, 2005; Tang, Browne, Mussell, Smye, & Rodney, 2015). Indigenous people often speak of confrontational incidents involving racial slurs, verbal attacks, and cultural appropriation by non-Indigenous citizens (Peters & Lafond, 2013; Silver, Hay, & Gorzen, 2005; UAKN Atlantic Regional Research Centre, 2018). Discrimination and racism towards Indigenous people in cities can permeate almost every facet of life from epistemic racism within

academia to relational racism in day-to-day interactions with non-Indigenous people to structural racism, which is embedded in the economic, social, and political institutions across the country (Reading, 2013). While outright name-calling is one of the more overt signs of relational racism, another commonly experienced symptom of hostility in the city is made manifest through inaccessible and culturally inappropriate service provision and employment opportunities. As a fundamental right, healthcare provision is one of the most necessary services accessed by Indigenous peoples in cities. However, stereotypes of manipulation, lying, and addiction often crowd the judgement of healthcare providers, and therefore affect the level of care provided to Indigenous peoples (Hunt, 2015; Peters & Andersen, 2013; Tang, Browne, Mussell, Smye, & Rodney, 2015). Similar stereotypes about laziness and irresponsibility filter through to employment prospects, where Indigenous peoples are deemed to be unreliable, leading them to feel discriminated against by potential employers (Peters & Andersen, 2013).

It is these experiences, which constitute forms of day-to-day racism and discrimination, that make the urban Indigenous experience different from that of reserve communities. While Indigenous peoples on reserves experience many forms of structural racism as well, the experience of living in a multicultural and predominantly non-Indigenous city makes for a much more likely occurrence of day-to-day Indigenous-settler relations and, in turn, relational racism. Discrimination and racism contribute to poor mental health outcomes of urban Indigenous peoples (Bombay, Matheson, & Anisman, 2010; Larson, Gillies, Howard, & Coffin, 2007), an added stressor to an already complicated picture of Indigenous mental health.

2.2 THE MENTAL HEALTH OF INDIGENOUS PEOPLES IN CANADA

The mental health of Indigenous peoples in Canada is profoundly diverse. Much research has focused on the negative mental health outcomes seen in some communities while a small

portion of attention has been given to positive mental health outcomes among Indigenous peoples in Canada. On the positive side, research from the 2012 First Nations Regional Health Survey showed that almost 65% of First Nations youth living on reserve perceived their mental health to be “very good” or “excellent” (First Nations Information Governance Centre, 2012) and Statistics Canada reports that the majority of Indigenous adults perceive their own mental health to be “very good” or “excellent” (Kelly-Scott & Smith, 2015). Additionally, findings suggest that, in general, Indigenous people are more likely to seek support for their mental health than the general Canadian population (Government of Canada, 2006). Being willing and able to seek help for mental health issues is key to reducing harmful behaviours and negative mental health outcomes such as suicidal ideation (Hom, Stanley, & Joiner, 2015). Because suicide is a broadly experienced and predominant issue among Indigenous peoples in Canada, this increased willingness to seek help is essential to maintaining and improving mental wellness.

A number of researchers point to the higher rates of suicide among Indigenous people than non-Indigenous people in Canada as the foundation for the assumption that Indigenous peoples in Canada have poor mental health. However, what this blanket statement fails to account for is the variability of mental health outcomes in communities coast to coast. While some communities face tremendously high levels of youth suicide, there are other communities that have virtually no experience with suicide (Kirmayer, Tait, & Simpson, 2009). Additionally, national research of Indigenous people living off reserve shows that low- and middle-income earners have higher rates of depression than their non-Indigenous counterparts, but among high-income earners, the rates are about the same for Indigenous and non-Indigenous people (Tjepkema, 2002). These diverse mental health realities point to a number of possible explanations for mental health outcomes. In the following three sections, I will draw on literature

that suggests possible factors influencing both positive and negative mental health outcomes: cultural engagement, structural determinants, and colonialism.

2.3 CULTURAL ENGAGEMENT AS A PROTECTIVE FACTOR FOR MENTAL WELLNESS

There is a growing interest in the effect that protective factors have on mental health. Protective factors are characteristics that help people to positively cope with and manage stressful situations and contexts (Petrasek Macdonald, Cunsolo Willox, Ford, Shiwak, & Wood, 2015). In much of the scholarship on Indigenous health, this concept is referred to as resilience, which is a pattern of positive adaptive behaviour in the face of oppression or adversity and is an attribute uniquely valuable for marginalized groups (Hatala et al., 2017; Hopkins, Taylor, & Zubrick, 2018; LaFromboise et al., 2006; Masten, 2001). This line of thought follows much of current mental health research on Indigenous peoples in Canada, which utilizes a strengths-based approach. A strengths-based approach to mental health research in which the assets of a community or its assistive and useful capital become the primary unit of analysis, as opposed to a community's deficits (Tedmanson & Guerin, 2011). This is done to uncover what social or structural elements help individuals and communities to thrive so that such factors can be implemented more broadly (Craven et al., 2016; Kilcullen, Swinbourne, & Cadet-James, 2018).

In this regard, this project follows in the tradition of Chandler and Lalonde's (1998) ground-breaking research, which identifies cultural continuity, or feelings of connectedness to one's culture, as a protective factor for the mental wellness of Indigenous peoples. For Chandler and Lalonde (1998), markers of cultural continuity include Indigenous land title, self-government, education that reflects Indigenous cultural contexts, and cultural enrichment and preservation facilities; they found that Indigenous communities in British Columbia with more of these markers, and thus stronger cultural continuity, had lower levels of youth suicide. As a

personal and communal process, cultural continuity includes self-engagement, identification, social and cultural recognition, and a sense of belonging (Auger, 2016; Greenwood & Jones, 2015).

In addition, after much research and consultation, Health Canada, the Assembly of First Nations (AFN), Inuit Tapiriit Kanatami, and the Thunderbird Partnership Foundation, established the “First Nations Mental Wellness Continuum Framework,” which characterizes mental wellness as a combination of purpose, hope, belonging, and meaning with culture at the foundation of mental wellness (Health Canada, 2015). This extensive body of work by both Indigenous and non-Indigenous researchers makes it seem likely that culture has a significant influence on mental health. Exploring this connection might not only help to identify factors that mitigate or prevent poor mental health, but also celebrate and help to foster strength and recognition of Indigenous cultures and peoples.

For many urban Indigenous peoples, circular migration is also intrinsic to a healthy and whole Indigenous self. Circular migration, or movement back and forth between urban and reserve settings, is integral to many Indigenous peoples’ cultural identity maintenance (Wingert, Spence, & White, 2011; Peters & Andersen, 2013; Darnell, 2011). There are some practices and traditions that are inaccessible within cities, creating a pull back to homelands or reserves (Smith, Smith, & Sioui, 2016). Hunting, fishing, and gathering rights are far from universal and differ by region and treaty (Charlton, 2015). Specifications around location, species, and time of day or year are all limitations imposed on Indigenous people looking to hunt or fish, often in dispute with provincial game laws (Meyers, 1991). The limitations imposed on these activities make it so that many people are required to engage in circular migration in order to get out on the land in these ways.

Though it is important to recognize the cultural value gained from retained connections to reserves and Nations, Indigenous cultures in cities have vibrant and unique expressions of Indigeneity in their own right. Finding personal ways to engage with one's culture is essential particularly in what can be an isolating city setting. Arts, crafts, and creative expression are a considerable part of this urban Indigenous cultural engagement. This could include the creation of more functional items such as clothing or baskets, more spiritual items such as masks or totem poles, or even participation in performing arts such as dancing, singing, dramatization, or drumming (Muirhead & De Leeuw 2012). This variety of expressions of Indigeneity is promulgated throughout urban areas. For some, smudging or creating art at home are the ways that they choose to engage with their Indigeneity, while for others attending sweats or powwows in groups bring them closer to their Indigenous identities (Peters & Andersen, 2013; Silver, Hay, & Gorzen, 2005).

Although every culture has its own set of practices and mores, in an urban setting, a multitude of Indigenous identities are brought together under the umbrella of pan-Aboriginal groups such as Friendship Centres. There are 117 centres in Canada (Albert, 2011), which provide a space for collaboration, practicing cultural customs, creating culturally appropriate service delivery, and generating visibility for Indigenous peoples in cities (Cooke & Bélanger, 2006; Newhouse, 2003; Newhouse, Peters, & Policy Research Initiative, 2003; Ouart & the Saskatoon Indian and Métis Friendship Centre, 2013; Senese & Wilson, 2013). Researchers suggest that the emergence of cross-cultural interaction through Friendship Centres has strengthened Indigenous identities and protected people from assimilation (Lévesque, 2003; Senese & Wilson, 2013).

The connection between youth and elders through spaces such as Friendship Centres holds significant value for urban Indigenous peoples (Norris & Jantzen, 2003; Silver, Hay, & Gorzen, 2005). Since young people represent the future and elders represent the wisdom learned from the past, the relationship between the young and the old is given a distinct echelon of respect in many Indigenous cultures (Greenwood & Jones, 2015). Particularly in city spaces where Indigenous peoples are confronted by a multitude of cultures and ideologies, elder knowledge can be highly influential in the day-to-day choices of young Indigenous people. Elders can be spiritual guides and are viewed to be some of the most trustworthy people in a community (Trevethan, 2003). The influence that elders have on young people makes them essential to the fabric of a supportive and accepting community.

Language sharing, especially, is at the core of the intergenerational relationship (Baloy, 2011; Norris & Jantzen, 2003). For elders, passing on their languages to young people can be one of the only times that they feel welcome to practice their languages, and for young people, elders can be one of the only sources for obtaining that knowledge (Baloy, 2011). Many cultural features such as music, prayers, and ceremonies are only conducted in Indigenous languages, and for elders to pass along those traditions and thereby help young Indigenous people to connect to their cultures, language knowledge is essential (Gonzalez, Aronson, Kellar, Walls, & Greenfield, 2017). Speaking one's own Indigenous language is shown to promote mental wellness by increasing self esteem and a sense of belonging to a person's cultural group (Bals, Turi, Skre, & Kvernmo, 2010; MacDonald, Ford, Willox, & Ross, 2013).

Considering the value of these elements together – circular migration to get out on the land, urban cultural participation including artistic expression, time spent at Friendship Centres and time spent with elders, and Indigenous language knowledge – I develop the first hypothesis:

H1: Cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improve mental health for urban Indigenous peoples.

2.4 STRUCTURAL DETERMINANTS

Beyond cultural engagement, there are other factors that have been strongly linked to the mental health outcomes of Indigenous peoples in Canada. Proximal or structural determinants of health such as income, education, and employment have been demonstrated to accelerate or even cause mental health problems across a wide range of cultures (Reading & Wien, 2009).

Researchers have shown that higher rates of poverty, low educational attainment, and unemployment among urban Indigenous people are fundamentally linked to their mental health outcomes (Cooke, Woodhall, & McWhirter, 2013; Hajizadeh, Bombay, & Asada, 2019).

Nationally, Indigenous peoples are almost twice as likely as non-Indigenous people to have low-incomes (Wingert, Spence, & White, 2011) and the median household income for Indigenous people in Canada is \$8,491 below that of the non-Indigenous population (Wien & The National Collaborating Centre for Aboriginal Health, 2017). A considerable contributor to these disproportionate rates of poverty is the sociocultural genocide of Indigenous peoples in Canada through loss of heritage, lands, culture, and resources (Wien & The National Collaborating Centre for Aboriginal Health, 2017). These income discrepancies have a notable impact on mental health. When comparing off-reserve Indigenous and non-Indigenous people of the same low- or medium-income groups, Indigenous people are significantly more likely than non-Indigenous people to have experienced a major depressive episode in the last year (Reading & Wien, 2009). The reasons for the negative effect of low-incomes on mental health include

reduced choice and opportunity, decreased hope, and poorer access to health care (Isaac & Jamieson, 2015; The National Collaborating Centre for Aboriginal Health, 2009).

A similar relationship is observed between educational attainment and mental health outcomes. Estimations suggest that half of Indigenous youth do not complete high school (Reading & Wien, 2009) and among Inuit youth, that number is even higher with roughly 75% leaving school before attaining a high school diploma (Simon & Inuit Tapiriit Kanatami, 2011). Educational attainment is not only valuable as a means of gaining better employment and income prospects, but also as a source of health literacy such as healthy eating practices and prenatal health (Reading & Wien, 2009; Richmond & Ross, 2009; Van der Heide et al., 2013). Research shows that both possible outcomes of low educational attainment negatively impact mental health (Sharpe & Arsenault, 2010; Sisco, Caron-Vuotari, Stonebridge, Sutherland, & Rhéaume, 2012; Van der Heide et al., 2013).

Unemployment among Indigenous people is another major social determinant of mental health. The unemployment rate for Indigenous people in Canada is 5.3 percentage points higher than for the non-Indigenous population and research shows that it is a major influencing component on mental health outcomes (Moyser, 2017). The mental health issues associated with unemployment or underemployment include greater risk of housing instability, heightened food insecurity, and increased stress (Ferdinand, Paradies, Perry, & Kelaher, 2014; Kolahdooz, Nader, Yi, & Sharma, 2015; McIntyre, Bartoo, & Emery, 2014; Safaei, 2008). These socioeconomic realities of urban Indigenous life and their link to mental health outcomes have led me to hypothesize that

H2: Mental wellness for urban Indigenous peoples is improved by higher incomes, higher educational attainment, and employment.

2.5 COLONIALISM

In addition to cultural engagement and structural determinants of health, researchers tie the mental health of Indigenous peoples in Canada to a number of unique social circumstances related to colonialism, assimilationist policies, cultural destruction, discrimination and stereotyping, and intergenerational trauma (Bombay, Matheson, & Anisman, 2010; Edmonds, 2010; Gyepi-Garbrah, Walker, & Garcea, 2014; Hackett, Feeny, & Tompa, 2016; Silver, Hay, & Gorzen, 2005; Tang, Browne, Mussell, Smye, & Rodney, 2015). Globally, colonized peoples have increasingly poorer mental health and higher suicide rates than they used to, often being traced to disrupted cultural identity and participation (Hunter & Milroy, 2006; Talaga, 2018).

The most established colonial determinant of mental health for Indigenous peoples in Canada is the Indian Residential School System (IRSS). For more than a hundred years, the IRSS forcibly removed Indigenous children from their homes and stripped them of their cultures, languages, and family ties (Buddle, 2011; McCormick, 2009; Reading, 2015). The IRSS was created for precisely this purpose: as a means of separating children from their parents and assimilating more than 150,000 Indigenous children into Christian, settler-colonial society (Truth Reconciliation Commission of Canada, 2012; Wilk, Maltby, & Cooke, 2017). At the schools, many children were told by their teachers that their cultures made them “disgusting” and “uncivilized,” harming their self-esteem and taking away their cultural identity and dignity (Flynn, 2011). In 1907 alone, between 25 and 35 percent of children in residential schools died (Reading, 2015), and due to emotional, physical, and sexual abuse, those who survived were left with serious psychological and mental health problems (Kirmayer, Tait, & Simpson, 2009).

A substantial amount of research has shown that the psychological harm caused by the IRSS has effects that extend beyond those who attended the schools. In particular, children and

grandchildren of residential school survivors have an increased risk of depression, strained relationships, and even abuse (Bombay, Matheson, & Anisman, 2011; Bombay, 2015; Elias et al., 2012; Stout, 2010; Wilk, Maltby, & Cooke, 2017). Along with increased risk of depression, familial attendance at residential school is associated with increased risk of suicide, educational difficulties, and increased risk of contracting Hepatitis C if using injection drugs (Bombay, Matheson, & Anisman, 2014; Craib et al., 2009; First Nations Centre, 2005). There are a number of possible explanations for this transmission of trauma including heightened perceived discrimination, lowered intergroup trust and forgiveness, overlapping and continued exposure to stress and trauma, and pessimism about systemic changes at the federal level (Bombay, 2015; Bombay, Matheson, & Anisman, 2014). The cultural genocide and ensuing reality of intergenerational trauma caused by the IRSS (McNally & Martin, 2017) has had severe impacts on the mental health of Indigenous peoples in Canada.

The second structure to be considered that falls under the jurisdiction of colonialism, or as Sherry Pictou (2015) puts it, “subject to coloniality,” is the treaty system. Colonialism has employed mapping and place naming, both historically and presently, as a means of claiming and demonstrating control over a landscape and effectively dispossessing and erasing particular presences (Gaudry, 2018; Shaw, Herman, & Dobbs, 2006). The nation we understand as “Canada,” and correspondingly the provinces and territories within it, represent mass jurisdictional and territorial claims to sovereignty made by colonial powers (Asch, 2014). Aside from the mass usurpation of land and claims to sovereignty, there was one other means by which the Crown and ensuing federal government have made claims to the land known as Canada: treaties.

Much of Canada's contemporary understanding of geography, and in turn ongoing colonialism, are shaped by treaties. Treaties are relational agreements made between Indigenous peoples and the Crown (now upheld or not by the federal government) (Borrows & Coyle, 2017). Intrinsic to the foundation of the Canadian nation state are hundreds of diverse treaties used to colonize Indigenous lands and peoples in exchange for largely unkept promises such as non-disruption or quelling direct violence against Indigenous peoples and their ways of life, increased trade, political alliances (Asch, 2014), schools and services, and exchange of specific goods (Miller, 2009).

There is considerable diversity of understanding around the spirit and intent of the treaty agreements. For many Indigenous peoples, treaties are understood to be solemn, mutual, consensual, political, economic, and even possibly sacred covenants made between Indigenous nations and the British Crown to establish mutual regard and respect (Borrows & Coyle, 2017; Pictou, 2015). The Supreme Court of Canada has recognized that the written treaties may not reflect the understood terms of the agreements since treaties were negotiated orally (Asch & Intellectual Property Issues in Cultural Heritage IPinCH Project, 2016). This is to say that consideration of the content of treaties goes beyond the written word to include recognition of the Indigenous philosophies and laws undergirding the agreements and the unique linguistic differences between the parties (Asch & Intellectual Property Issues in Cultural Heritage IPinCH Project, 2016; Borrows & Coyle, 2017).

One major divergence in understanding exists around the "extinguishment clause" found in the written account of the Numbered Treaties, which states that, by signing the treaty, Indigenous peoples agreed to "cede, release, and surrender" their rights and title to their land (Flanagan, 2000; Manuel & Derrickson, 2017). This understanding is one that is not shared by

Indigenous peoples, who often contend that the ethical, political, spiritual, and moral relationship that they entered into was about mutual sharing instead of transferring land (Asch, 2018; Cardinal & Hildebrandt, 2000). Without equal bargaining power or a common linguistic foundation, Indigenous peoples were unable to ensure that the oral agreements they had committed to were the same ones that colonialists transferred to written documents (Borrows & Coyle, 2017).

While contestation and debate continue to exist around the content and ongoing nature of treaties, many Indigenous peoples remain committed to preserving the intent of the treaties as valuable and honoured agreements at the foundation of the relationships between Indigenous peoples and Canada (Rabson, 2017). The spatial and moral alienation many Indigenous people have felt about the Crown's dismissive approach towards treaty relationships has led to petitions, resistance, and protest (Miller, 2009). Even treaty rights that exist within both the oral and written versions of the agreements have been inconsistently upheld. Formal education, for example, was understood to be a treaty right of Indigenous peoples living in territories covered by the Numbered Treaties (Carr-Stewart, 2001). However, schools in Number Treaty territories have been found with extremely poor infrastructure and health hazards (Angus, 2015). Paired with the "extinguishment clause," with its claims of cessation, surrender, and release of Indigenous territory to colonialists, disparate understandings and broken promises have put strains on treaty relationships, breached trust between the Crown and Indigenous peoples, and drained people of their hope. The Number Treaties, which extinguished land rights, were written between 1871 and 1921 (Borrows & Coyle, 2017). Other regions signed treaties earlier through agreements such as Peace and Friendship treaties. Peace and Friendship treaties reduced sovereignty and autonomy for groups like the Mi'kmaq and Maliseet (Miller, 2009), but even the

written accounts of these treaties did not explicitly extinguish the land rights of the Indigenous peoples of that territory. The particular strains of the “extinguishment clause” and broken promises from the Numbered Treaties place them in a unique category of alienation.

In consideration of the intergenerational impacts of residential schooling and the strained treaty relationships around the “extinguishment clause” and broken treaty promises in the Numbered Treaties, I develop two hypotheses about the effects on urban Indigenous mental health:

H3: Indigenous people who have personal or familial experience with residential schooling will have poorer mental health than those who do not.

H4: People living in territories covered by the Numbered Treaties will have worse mental health than those living in other treaty territories.

2.6 DEMOGRAPHIC CONSIDERATIONS

There are additional and well-documented patterns of mental health outcomes for urban Indigenous peoples in Canada related to two particular demographic factors: sex and identification. Factors such as low incomes, lower educational attainment, and unemployment have already been shown to decrease mental wellness (Cooke, Woodhall, & McWhirter, 2013; Reading & Wien, 2009) and Indigenous women are more likely than Indigenous men to be confronted by these realities (Halseth, 2013). Women are also more likely to suffer from mental health issues such as depression or anxiety than men (Halseth, 2013) and suicidal ideation, one of the strongest indicators of poor mental health, is higher among Indigenous women than among Indigenous men (Grace, 2003). These realities can only truly be understood within a framework of understanding the particular marginalization Indigenous women have faced in Canada,

predominantly because of colonialism (Stout, Kipling, & Stout, 2001). Colonial authorities established Indigenous women as a marginalized class within a marginalized class, a major divergence from the matrilineal societies that previously characterized many Indigenous communities (Halseth, 2013). Such changes were even worked into control over who could claim status.

The *Indian Act*, a formal document of the federal government addressing their obligations to, and administrative jurisdiction over, First Nations peoples, revoked status and the right to live on reserves from First Nations women who chose to marry non-status men (Andersen, 2013; Senese & Wilson, 2013). Once the *Indian Act* was amended in 1985 to allow Indigenous women to regain their Indian status, those who had once lost their status and were living in cities, regained their Indigenous identity and created the appearance of mass growth of urban Indigenous populations (Peters & Andersen, 2013; Senese & Wilson, 2013). Part of this shift in regained recognition of identity has contributed to the seeming increase in urban Indigenous populations spoken of in section 2.1.

Identity is the second demographic consideration explored here. In Canada, Indigenous peoples are generally understood in terms of three broad categories: First Nations, Inuit, and Métis. Amongst and within the identity groups, mental health varies dramatically. First Nations people comprise about 61% of the overall Indigenous population in Canada (Statistics Canada, 2013) and have the highest rates of mood disorders and anxiety disorders among the three identification groups (Kelly-Scott & Smith, 2015). Inuit, who comprise about 4% of the Indigenous population in Canada (Statistics Canada, 2013) have the highest rates of youth suicide among Indigenous peoples and the Canadian population as a whole (Kielland & Simeone, 2014). Métis, who comprise about 32% of Indigenous peoples in Canada (Statistics

Canada, 2013) have been largely overlooked in mental health research (Auger, 2018). What is known is that of the three identity groups, Métis report the highest rates of “very good” and “excellent” mental health (Kelly-Scott & Smith, 2015).

The identity groups and their membership are continuously evolving. As noted above, colonial legislation has played a role in determining who is and who is not considered to be First Nations, and in the present day, social and ideological shifts are affecting who is and who is not considered to be Métis. An ongoing debate exists around whether or not people with combined First Nations and Acadian or Franco-Québécois heritage can make claims to Métis identity (Leroux & Gaudry, 2017). While the particulars of this debate are not integral to the research at hand, the debate does touch on an important consideration: strength of identity. Not all who identify as Indigenous, whether that be First Nations, Inuit, or Métis, may have the same level of strength in their identities and amongst those three broad categories there is also substantial diversity.

Cultural engagement may not have the same protective impact as it could if paired with a strong sense of identity. Fishing, for example, may have one meaning to a person with a strong Indigenous identity and another meaning entirely for a person without. The Chair of the Truth and Reconciliation Commission of Canada, Senator Murray Sinclair, suggests that there are four questions every Indigenous person must know the answer to: “Where do I come from? Where am I going? Why am I here? Who am I?” (Talaga, 2018, pp. 17-18). At the core of those questions lies the subject of identity. Having a strong sense of ethnic pride, attachment, and belonging have been directly linked to positive mental health outcomes (Mossakowski, 2003; Smokowski, Evans, Cotter, & Webber, 2014; Stewart, 2008). Studies show that instilling pride and strength of identity in ethnic minority groups can also help protect against racism,

discrimination, and cultural destruction (Auger, 2016; Bombay, Matheson, & Anisman, 2010; LaFromboise et al., 2006; Mossakowski, 2003; Petrusek Macdonald et al., 2015; Phinney, Berry, Vedder, & Liebkind, 2006; Wu, Schimmele, Noh, & Kaspar, 2003). For these reasons, it is worthwhile to consider how strength of identity can impact mental health.

While neither sex nor Indigenous identity group are primary focuses of my research, I will incorporate them as controls in my regression analysis in Chapter 5 considering the valuable demographic differences that have been noted in the review of literature above.

2.7 URBAN INDIGENOUS MENTAL WELLNESS

In this chapter, I have reviewed the literature on Indigenous realities in cities, the state of Indigenous mental health, an exploration of cultural continuity, structural determinants of mental health, impacts of colonialism, and demographic considerations.

Looking at urban Indigenous populations is important considering the continuous growth of Indigenous populations in cities from migration, fertility rates, and changes in self-identification. Additionally, Indigenous people living in cities are confronted with daily and systemic racism, which in turn negatively impacts their mental health. The mental health of Indigenous peoples in Canada varies. The majority of First Nations youth report “very good” or “excellent” mental health and help seeking behaviours are higher among Indigenous peoples than in the general Canadian population. However, some areas are faced with high levels of poor mental health outcomes such as depression and suicide.

One major factor that has been found to improve mental health outcomes is cultural engagement. Using cultural continuity as a framework, this chapter considered the protective

elements of circular migration, artistic expression, Friendship Centres, elder support, and language knowledge on Indigenous mental wellness.

Pulling from previous research on Indigenous mental wellness, this chapter also considered the impacts of structural determinants of mental health. Structural determinants have been shown to be a key component to mental health outcomes. Higher incomes, higher education, and employment have all been shown to improve mental health.

Colonialism, on the other hand, has been shown to do the opposite. The Indian Residential School System has negatively impacted the mental health outcomes of those who attended the schools as well as their children and grandchildren. Colonialism also continues to cause alienation and dispute around the treaty system. Contention around oral understandings and written formulations make for complicated and sometimes broken treaty relationships.

Finally, this chapter highlighted some demographic considerations such as sex and Indigenous identification groups. I pointed out the disproportionate rates of depression and suicidal ideation among Indigenous women and the variance in mental health outcomes among First Nations, Inuit, and Métis. Finally, the chapter explored literature on strength of identity and suggested that cultural engagement may have differing levels of value for people with different levels of identity.

Considering the contents of the literature review, there are four potential dimensions that affect urban Indigenous mental health that will be considered in this research project: cultural engagement, structural determinants, residential schooling, and treaties. I hypothesize that

H1: Cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples.

H2: Mental health for urban Indigenous peoples is improved by higher incomes, higher educational attainment, and employment.

H3: Indigenous people who have personal or familial experience with residential schooling will have poorer mental health than those who do not.

H4: People living in territories covered by the Numbered Treaties will have worse mental health than those living in other treaty territories.

The following chapter will explain the datasets, operationalized measures, and statistical methods used to explore these hypotheses in greater detail.

CHAPTER 3 METHODS

This project looks at cultural protective factors of mental wellness for urban Indigenous people in Canada, while controlling for social determinants, colonialism, and demographics. It does so by using a quantitative research framework and data from the 2012 Aboriginal Peoples Survey (APS) from Statistics Canada and the 2010 Urban Aboriginal Peoples Study (UAPS) from The Environics Institute. The two datasets complement one another, compensating each other's weaknesses, and amplifying each other's strengths.

3.1 DATA AND VARIABLES

The APS is a national survey of off-reserve First Nations, Métis, and Inuit people in Canada, aged six and older. In my analysis, I limited the sample to those living in census metropolitan areas (CMAs), which have a population of at least 100,000 of which 50,000 or more live in the core, and census agglomerations (CAs), which have a core population of at least 10,000 (Statistics Canada, 2018). This was done in order to look at urban populations alone. The APS primarily asks questions about education, employment, and health and has a total number of 28,410 Indigenous participants.

The UAPS, surveyed 2,614 Indigenous adults, 18 years of age and older, living in 11 Canadian cities: Vancouver, Edmonton, Calgary, Regina, Saskatoon, Winnipeg, Thunder Bay, Montreal, Toronto, Halifax and Ottawa (Inuit only). The UAPS asks participants questions about their identities, experiences, values, and aspirations. The APS has a number of possible questions measuring mental health experiences, while the UAPS only asks about happiness levels and self-perceived health overall. With regards to measures of culture, the APS has a limited range of questions about cultural engagement, no questions about strength of identity, and a narrowly

defined expectation of what it means to practice Indigenous culture. This is compensated for by the UAPS which asks substantially more questions about how urban Indigenous peoples practice their cultures and their strength of identities both as Indigenous peoples and as Canadians; however, the UAPS has a smaller sample, no questions directly about mental health, and less statistical power.

Table 1 offers an overview of the variables and datasets used in the analysis of the APS.

Table 1. *Variables under analysis from the 2012 Aboriginal Peoples Survey*

2012 Aboriginal Peoples Survey (Statistics Canada)		
<i>Variable</i>	<i>Marker of</i>	<i>Asks about</i>
mhealth	Mental health	Self-perceived mental health
mhealthcon	Mental health	Saw psychologist/social worker/counsellor
sad	Mental health	Feelings of sadness during the past month
hft_tot	Cultural engagement	Hunting/fishing/trapping done in the last year
artscrfts_tot	Cultural engagement	Arts/crafts made in the last year
wp_tot	Cultural engagement	Wild plant gathering done in the last year
frcentre	Cultural engagement	Community/Friendship Centre to turn to for support
eldsupport	Cultural engagement	Elder to turn to for support
ablangab	Cultural engagement	Ability to speak an Aboriginal language
income	Structural determinants	Total employment income
educ	Structural determinants	Highest level of education obtained
employ	Structural determinants	Labour force status
RS	Colonialism	Residential school attendance
nreg	Colonialism	Region of residence
treaty1	Colonialism	First set of treaty categories
treaty2	Colonialism	Second set of treaty categories
sex	Demographic controls	Sex of respondent
IndID	Demographic controls	Indigenous identification group

Source: Statistics Canada, 2012

To look at mental health, three measures are used as dependant variables from the APS: general self-perceived mental health (Five-point Likert scale from “poor” to “excellent” mental health), mental health consultation with a psychologist, social worker or counsellor in the last year (dichotomous yes/no response), and experiences of sadness or depression in the last month

(Four-point Likert scale responses from “None of the time” to “Most/all of the time”). Since this research is primarily interested in what protects mental wellness as opposed to what causes mental illness, I was most interested in the self-perceived mental health variable, which has options to show positive mental wellness. The other two mental health measures look more at mental illness or the absence of mental wellness, but I included the others in a preliminary way in order to check the validity of the self-perceived mental-health measure.

As mentioned in Chapter 2, a variety of researchers have demonstrated the protective effects of cultural engagement on the mental health of Indigenous peoples living on reserves (Auger, 2016; Chandler & Lalonde, 1998; Greenwood & Jones, 2015). By transplanting this research framework into the urban context, I hypothesized that cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language would improve mental health for urban Indigenous peoples. In order to test this hypothesis, I selected six independent variables for analysis of cultural engagement. First, I created three variables asking about regularity of participation in specific Indigenous cultural activities: hunting/fishing/trapping, wild plant gathering, and arts and crafts making (Four-point Likert scale questions from “not at all this year” to “at least once a week”). These new variables were created by combining two types of existing variables: one that asked whether or not the respondent had participated in the activity and one that asked about regularity of participation. I selected these variables to include measures of activities that would require circular migration (such as hunting/fishing/trapping or wild plant gathering) as well as those that could be expressions of urban Indigeneity (such as arts and crafts making). Next, I included a question about accessibility of Friendship Centres (dichotomous yes/no) and a question about whether or not participants had an elder to turn to for

support (dichotomous yes/no). For the final measure in this category, I selected a variable that asked about Indigenous language ability (Three-point scale question from “does not speak an Aboriginal language” to “speaks relatively/very well”).

Structural determinants such as income, education, and employment have been repeatedly shown to impact the mental health of Indigenous peoples (Cooke, Woodhall, & McWhirter, 2013; Reading & Wien, 2009). Because of this, my second hypothesis is that mental health for urban Indigenous peoples is improved by higher incomes, higher educational attainment, and employment. In order to test this in my research, I identified three independent variables in the APS relating to structural determinants: total household income, highest level of education attained, and employment status. The first looks at income and is broken down into five categories: “Less than \$15,000,” “\$15,000 to \$29,999,” “\$30,000 to \$44,999,” “\$45,000 to \$59,999,” and “\$60,000 and over.” The second structural determinant is highest level of education attained, which is also a categorical variable, and falls into three categories: “Less than high school,” “high school or equivalent,” and “some postsecondary or higher.” The third variable in this category is labour force status, which asks if participants are “unemployed,” “employed,” or “not in the labour force.”

As noted previously in Chapter 2, colonialism is associated with lower mental health outcomes (Bombay, Matheson, & Anisman, 2011; Bombay, 2015; Elias et al., 2012; Stout, 2010; Wilk, Maltby, & Cooke, 2017). Two hypotheses address these challenges. First, Indigenous people who have personal or familial experience with residential schooling will have poorer mental health than those who do not. Second, people living in territories covered by the Numbered Treaties will have worse mental health than those living in other treaty territories. I used four independent variables to test the effects of these particulars of the colonial relationship:

residential school attendance, region of residence, and two variables about treaty categories. To explore the colonial impacts of residential schooling on mental health, I selected a question that asks about participants' relationship with the IRSS. I dichotomized the variable for comprehensibility to include "neither respondent nor any family members attended" or "respondent and/or family member(s) attended."

To test the effects of particular treaties on mental health, I included a variable for region of residence (Atlantic, Québec, Ontario, Prairies, British Columbia, Territories) as well as two variables that I created by recoding city of residence into treaty territory of residence as a way of decolonizing my geographic measure and considering the impacts of alienation caused by broken or strained relationships with the federal government. I matched each census metropolitan area (CMA) and census agglomeration (CA) included in the sub-sample of the APS with the treaty or treaties they fell within. I did this by triangulating information from the *Indigenous Peoples Atlas of Canada* (Royal Canadian Geographical Society, 2018), the crowd-sourced treaty mapping resource run by Victor G. Temprano, *Native-Land.ca* (Temprano, 2018), provincial and federal government websites (Crown-Indigenous Relations and Northern Affairs Canada, 2018; Ontario Ministry of Indigenous Affairs, 2018), and the article, "Canadian University Acknowledgment of Indigenous Lands, Treaties, and Peoples" (Wilkes, Duong, Kesler, & Ramos, 2017) (see Appendices A and B for full lists of CAs, CMAs, treaties, and treaty categories). The first set of treaty categories included lands covered by no treaty, areas with Indigenous land title, areas covered by Peace and Friendship treaties, areas covered by Peace and Neutrality treaties, ceded land, and purchased land (see Appendix A). However, upon consultation with Professor Naiomi Metallic, I created a second variable and reconfigured the categorization of the treaties to be as

follows: lands covered by no treaty, lands covered by modern treaties, lands covered by Peace and Friendship/Neutrality treaties, and areas covered by historic treaties (see Appendix B).

Finally, I included control variables for sex and Indigenous identification groups. Since there are notable disparities in the mental health outcomes of women, First Nations, Inuit, and Métis peoples (Auger, 2018; Grace, 2003; Halseth, 2013; Kelly-Scott & Smith, 2015; Statistics Canada, 2013), I chose to account for these differences in the regression modeling. However, the APS has no variables that could be used to address the impact of strength of identity on mental health, so I turned to the UAPS to fill this gap.

The UAPS is used to probe deeper into issues of cultural engagement and identity through an analysis of 12 variables. Table 2 provides a brief overview of each of the variables from the UAPS.

Table 2. *Variables under analysis from the 2010 Urban Aboriginal Peoples Study*

2010 Urban Aboriginal Peoples Study (EnviroNics Institute)		
<i>Variable</i>	<i>Marker of</i>	<i>Asks about</i>
I1	Happiness/wellness	Happiness with life
H13	Cultural engagement	Most important aspects of Aboriginal culture to pass on
B4	Cultural engagement	Friendships with other Aboriginal people
B5	Cultural engagement	Use of Aboriginal services or organizations
D2	Cultural engagement	Participation in Aboriginal political group(s)
D4	Cultural engagement	Voting in Aboriginal elections
H9	Cultural engagement	Importance of Aboriginal spirituality
H10	Cultural engagement	Availability of Aboriginal cultural activities
H11	Cultural engagement	Participation in Aboriginal cultural activities
I7	Cultural engagement	Ease of access to Aboriginal healing practices
H5a	Identity	Pride in First Nations/Métis/Inuit identity
H5c	Identity	Pride in Canadian identity
H7	Identity	Frequency of hiding Aboriginal identity
H1	Identity	Knowledge of Aboriginal ancestry

Source: The EnviroNics Institute, 2010

In the UAPS, I looked at a marker of overall happiness as my dependent variable because there are no variables explicitly examining mental health. This variable asks about overall happiness with life and had four options ranging from “not at all” to “very.” While not directly asking about mental health, it does touch upon the idea of wellness, which is the intent of using this measure for my current research.

To round out the understanding of cultural engagement, which is the primary factor affecting mental wellness under analysis, I turned to the UAPS for nine measures of cultural engagement. I looked at most important aspects of Aboriginal culture to pass on (thirty-one options including “language,” “customs/traditions,” “family values,” “spirituality,” and “ceremonies”); friendships with other Aboriginal people (four options from “none” to “many”); use of Aboriginal services or organizations (four options ranging from “never” to “often”); participation in Aboriginal political group(s) (dichotomous yes/no); voting in Aboriginal elections (four options from “never” to “often”); importance of Aboriginal spirituality (four options from “not at all important” to “very important”); participation in Aboriginal cultural activities (four options from “never” to “often”); and ease of access to Aboriginal healing practices (four options from “very difficult” to “very easy”). Many of the cultural participation variables selected from the UAPS, such as use of Aboriginal services or organizations or participation in Aboriginal cultural practices, were chosen for their alignment with measures from previous studies (Cooke & Bélanger, 2006; Newhouse, 2003; Peters & Andersen, 2013; Silver, Hay, & Gorzen, 2005). Two of the variables chosen from the UAPS were chosen for more speculative reasons. On-reserve cultural continuity as a protection for mental wellness includes self-determination or an Indigenous community’s right to govern themselves (Auger, 2016; Chandler & Lalonde, 1998). Since I have chosen to transplant the concept of cultural

continuity into the urban setting, I am curious to see if other forms of Indigenous political engagement can be employed as a means of helping to determine Indigenous futures in Canada and fill the role played by self-determination in an on-reserve context. For this reason, I chose the variables of participation in Aboriginal political group(s) and voting in Aboriginal elections.

Identity was a major demographic consideration reviewed in Chapter 2. While the APS offered a variable that is able to account for type of Indigenous identification, it does not have any measures for strength of identity, which has been shown to be a valuable protective factor for mental health (Auger, 2016; Bombay, Matheson, & Anisman, 2010; LaFromboise et al., 2006; Mossakowski, 2003; Petrusek Macdonald et al., 2015; Phinney, Berry, Vedder, & Liebkind, 2006; Wu, Schimmele, Noh, & Kaspar, 2003). For measures of strength of identity, I selected four variables in the UAPS: Pride in First Nations/Métis/Inuit identity, pride in Canadian identity, frequency of hiding Indigenous identity, and knowledge of Aboriginal ancestry. Pride in First Nations/Métis/Inuit identity has four options from “not at all proud” to “very proud.” Pride in Canadian identity has four options from “not at all proud” to “very proud.” Frequency of hiding Indigenous identity has four options from “never” to “often.” Finally, knowledge of Aboriginal ancestry has four options from “not well at all” to “very well.”

3.2 DATA AND METHODOLOGY LIMITATIONS

The two datasets used for this research, the APS and the UAPS, come with certain limitations. Findings from the UAPS are not generalizable to the whole country because they only deal with respondents from 11 cities and not all urban areas in Canada. Additionally, the UAPS does not have measures for mental health outcomes, so cross-referencing findings with the APS cannot be exact but is more speculative. Opting to use a quantitative approach for this research, moreover, has meant that the specific experiences, stories, and perspectives of

Indigenous people are not included in the analysis of the impact of cultural participation on mental health.

The content and approach to this research, however, are not undercut by these limitations. Though the UAPS is not generalizable to the whole country, the APS is generalizable to urban communities and so I use the UAPS to make my findings more robust and not to replace the data from the APS. The second challenge, missing mental health measures in the UAPS, is addressed by using the cultural participation variables as the primary focus of the UAPS analysis and using the APS to do the primary analysis of cultural participation, structural determinants, and colonialism on mental wellness. No one dataset currently exists to account for both mental health and cultural participation on the scale of the APS; therefore, by using the UAPS to supplement the cultural participation side of the conversation, the two datasets jointly address my research topic in a robust way. Finally, this project's use of quantitative analysis constitutes a valuable piece of the exploration of this topic. Qualitative methods have helped to illuminate the issue at hand and have given platforms for Indigenous voices to share their experiences with the effects of cultural engagement on mental wellness (Stewart, 2008; Ulturgasheva, Rasmus, Wexler, Nystad, & Kral, 2014). This project is able to add to that work by contributing statistical findings and paving the way for future research – both quantitative and qualitative – to continue to explore the relationship. This research is a necessary contribution to that conversation, particularly as it affects urban Indigenous populations.

3.3 ANALYTIC APPROACH

Analysis of both datasets looked at Indigenous people aged 18 and over living in urban areas of Canada and involved three steps. The first step involved descriptive statistics and tables of the APS to illustrate the base relationship between personal self-perceived reports of mental

health and variables that relate to markers of Indigenous cultural participation, including hunting/fishing/trapping, wild plant gathering, arts/crafts making, and Indigenous language ability (see Chapter 4). The second step in the data analysis was conducting linear regression modeling in the APS, to explore how different cultural engagement practices affect mental health when controlling for structural determinants, measures of colonialism, and demographic variables of sex and Indigenous identification group (First Nations, Métis, or Inuit). Lastly, I looked at the UAPS for supplemental information about cultural engagement and strength of identity to round out the findings from the bivariate analysis and regression modeling of the APS. I did this by looking at how cultural engagement and identity are embodied by urban Indigenous peoples to see if they align with the ways that the APS measures cultural participation, and also to see how cultural engagement affects broader ideas of happiness for participants in the UAPS (see Chapter 6).

As a non-Indigenous researcher conducting research about Indigenous peoples in Canada, I have sought the advice of Indigenous students, mentors, and academics to act as advisors for this work. In particular, I reached out to Dalhousie Student Union President, Aaron Prosper and the Dalhousie Indigenous Health Interest Group (IHIG). Aaron Prosper met with me during the developmental stages of the research to discuss Indigenous mental wellness, the research of the Thunderbird Partnership, and issues around statistical research with Indigenous peoples. Ziwa Yu, a members of IHIG, reviewed a full draft of the thesis before submission to act as a sensitivity reader and reviewed wording and framing of the literature and findings. I held these discussions following the ethical standards and information governance guidelines set out through the OCAP principles, which seek to place the ownership, control, access and possession of First Nations' data in the hands of First Nations people (First Nations Information Governance

Centre, 2014). My use of the APS or UAPS is secondary analysis of data already collected. Nevertheless, my conversations with Indigenous community members were intended to help ensure that my work was not done in a vacuum, but rather in discussion with populations who could have an interest in the research findings.

One of the primary suggestions put forward through conversations with Indigenous community members, was to include consideration of the “First Nations Mental Wellness Continuum Framework,” which characterizes mental wellness as a combination of purpose, hope, belonging, and meaning with culture at the foundation (Health Canada, 2015). Some of the key components of this framework include language, practices, ceremonies, knowledge, land, values, elders, cultural practitioners, and kinship relationships (Health Canada, 2015). Though this framework was originally developed to specifically focus on First Nations peoples and not all Indigenous populations, by applying this continuum to my research, the previous variables were selected so as to align with the framework in question and specifically address the context of my research.

This chapter has shown the datasets, operationalized measures, and statistical methods used to test the four hypotheses under analysis regarding the effects of cultural engagement, structural determinants, and colonialism on urban Indigenous mental health. In the following chapter, the mental health outcomes of urban Indigenous peoples in the APS will be analyzed. Following that, preliminary bivariate tests will be run of the first hypothesis, which states that cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples.

CHAPTER 4 URBAN INDIGENOUS MENTAL WELLNESS

4.1 THE STATE OF MENTAL WELLNESS IN THE 2012 APS

To begin understanding the relationship between cultural engagement and mental health for urban Indigenous peoples, it is valuable to examine the state of mental wellness for urban Indigenous peoples in the APS. Table 3 shows that the majority of participants in the survey (61%) had “very good” or “excellent” self-perceived mental health, with just 3% of participants perceiving their mental health to be “poor.” Eighty-four percent of participants did not seek a mental health consultation from a psychologist, social worker or counsellor in the last year and over half of participants (56%) reported that they felt sad or depressed “none of the time” in the last month. This shows that the majority of urban Indigenous people who participated in the APS do not report mental health issues and might be considered mentally well. Since the three mental health measures all point to a general sense of mental wellness among urban Indigenous peoples, I will simply employ the measure of self-perceived mental health throughout the rest of the analysis in order to look at mental wellness as opposed to mental illness.

Table 3. *Mental wellness measures in the APS*

Mental Wellness		
Variable	Freq.	Percent
<i>Self-Perceived Mental Health</i>		
Poor	13,990	3%
Fair	48,940	10%
Good	123,910	26%
Very Good	144,460	31%
Excellent	139,020	30%
<i>Mental Health Consultation</i>		
No	418,470	84%
Yes	80,470	16%
<i>Felt Sad/Depressed in Last Month</i>		
None of the time	260,250	56%
A little of the time	82,820	18%
Some of the time	90,960	19%
Most/all of the time	34,440	7%

Source: APS 2012, Statistics Canada

The results in Table 3 are fairly in line with the literature reviewed in Chapter 2, which showed that the majority of Indigenous adults report “very good” or “excellent” mental health (Kelly-Scott & Smith, 2015). While the APS sample under analysis is only those over the age of 18, the picture of general mental wellness shows signs of continuing into adulthood.

4.2 CULTURAL ENGAGEMENT AND MENTAL WELLNESS IN THE 2012 APS

Hypotheses 1 addresses Indigenous cultural engagement as a protective factor for mental wellness. The hypothesis states that cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples. As Table 4 shows, less than 2% of the sample reported having a community/Friendship Centre or an

elder to turn to for support, so those two variables were not applied more broadly in bivariate or regression analysis.

Table 4. *Community/Friendship Centre or elder to turn to for support*

Cultural Engagement		
Variable	Freq.	Percent
<i>Community/Friendship Centre to Turn to for Support</i>		
No	483,520	98%
Yes	9,750	2%
<i>Elder to Turn to for Support</i>		
No	486,690	99%
Yes	6,580	1%

Source: APS 2012, Statistics Canada

Table 5 shows the cross tabulations of the other four cultural engagement measures on self-perceived mental health.

Table 5. *Impact of cultural engagement on mental wellness*

Self-Perceived Mental Health by Cultural Participation					
Variable	Poor	Fair	Good	Very Good	Excellent
<i>Hunting/Fishing/Trapping in Last Year</i>					
Not at all this year	3%	11%	26%	30%	29%
At least once this year	2%	9%	28%	29%	32%
At least once a month	3%	7%	26%	34%	29%
At least once a week	3%	9%	24%	32%	32%
<i>Arts/Crafts Made in Last Year</i>					
Not at all this year	3%	10%	26%	30%	31%
At least once this year	5%	10%	26%	30%	29%
At least once a month	4%	14%	28%	30%	24%
At least once a week	3%	13%	24%	36%	25%
<i>Wild Plants Gathered in Last Year</i>					
Not at all this year	3%	10%	26%	30%	31%
At least once this year	3%	13%	27%	34%	24%
At least once a month	3%	9%	28%	34%	26%
At least once a week	5%	11%	24%	33%	27%
<i>Level of Aboriginal Language Ability</i>					
Does not speak an Aboriginal language	3%	10%	25%	31%	31%
Speaks only a few words/speaks with effort	3%	10%	29%	30%	27%
Speaks relatively/very well	3%	15%	35%	27%	21%

Source: APS 2012, Statistics Canada

For participation in hunting/fishing/trapping in the last year, 32% of those who reported hunting/fishing/trapping “At least once a week” reported “excellent” mental health compared to 29% of those who participated “Not at all this year.” This shows minor support for the first hypothesis, that cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples.

Hunting/fishing/trapping is part of the cultural engagement that comes from circular migration, which is integral to many Indigenous peoples’ cultural identity maintenance (Wingert, Spence, & White, 2011; Peters & Andersen, 2013; Darnell, 2011).

The other three measures used to examine cultural engagement inquire about arts/crafts made, wild plants gathered in the last year, and level of Aboriginal language ability. Across those

three variables, there is no consistent pattern between levels of engagement and mental wellness. However, as seen in Table 5, those who participated in arts/crafts making “At least once a week” had the highest rates of “very good” mental health compared to other levels of participation and as for language, the highest rate of those with “good” mental health belonged to the group that “Speaks relatively/very well.” Unexpectedly, the group that “Does not speak an Aboriginal language” had the highest rates of “excellent” mental health.

A number of researchers have suggested that knowledge of one’s own language increases mental wellness (Bals, Turi, Skre, & Kvernmo, 2010; MacDonald, Ford, Willox, & Ross, 2013), so this contradictory finding could be explained by a couple of different factors. First, the majority of the sample in the APS (67%) reported that they do not speak an Indigenous language, with just 5% reporting that they speak their language “relatively/very well.” This small sample size may make for skewed results. Alternatively, the value of knowing one’s own Indigenous language in an urban area may have a different impact on mental wellness due to the multicultural nature of the urban context. Much of the research linking Indigenous language knowledge to mental wellness has been conducted with Northern, rural populations (Bals, Turi, Skre, & Kvernmo, 2010; MacDonald, Ford, Willox, & Ross, 2013), so the protective influence may not be the same for those living in cities.

4.3 SUMMARY OF UNIVARIATE AND BIVARIATE RELATIONSHIPS FROM THE APS

The results shown thus far have affirmed the positive state of mental wellness among urban Indigenous peoples but have left little evidence in support of a relationship between cultural participation and mental health. While there seems to be some support for the cultural engagement hypotheses with higher mental health outcomes for specific levels of engagement with hunting/fishing/trapping, arts/crafts making, and language, no strong patterns have emerged

as of yet. The impact of cultural engagement on mental health is the primary focus of this research, and the next stage, regression modeling, will explore this relationship further.

CHAPTER 5 PROTECTING URBAN INDIGENOUS MENTAL WELLNESS

5.1 CULTURAL ENGAGEMENT AS PROTECTION FOR MENTAL WELLNESS

Since the primary concentration of this research is on the impact of cultural engagement on urban Indigenous mental wellness, Table 6 in this chapter regresses self-perceived mental health by four measures of cultural engagement: Hunting/Fishing/Trapping in Last Year, Arts/Crafts Made in Last Year, Wild Plants Gathered in Last Year, and Level of Aboriginal Language Ability. All models include structural determinants (income, education, and employment), measures of colonialism (residential school experience and treaties) and demographic controls (sex and Indigenous identification group).

Using the Second Set of Treaty Categories as the measure of geography, Table 6 regresses Indigenous cultural engagement measures from the APS on self-perceived mental health.

Table 6. Self-Perceived Mental Health by Cultural Engagement, Colonialism, and Controls

Variable	Model 1			Model 2			Model 3			Model 4		
	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value
Self-Perceived Mental Health												
Hunting/Fishing/Trapping Done in the Last Year (reference: Not at all this year)												
At least once this year	-0.048	0.063										
At least once a month	-0.004	0.060										
At least once a week	0.104	0.064										
Wild Plant Gathering Done in the Last Year (reference: Not at all this year)												
At least once this year			*	-0.164	0.072							
At least once a month				-0.087	0.069							
At least once a week				-0.049	0.075							
Arts/Crafts Made in the Last Year (reference: Not at all this year)												
At least once this year				-0.072	0.096							
At least once a month				-0.216	0.096	*						
At least once a week				-0.033	0.066							
Ability to Speak an Aboriginal Language (reference: Does not speak an Aboriginal language)												
Speaks only a few words/speaks with effort												
Speaks relatively/very well												
Total Household Income (reference: Less than \$15,000)												
\$15,000 to \$29,999	0.016	0.110		0.013	0.110		0.014	0.108		0.011	0.112	
\$30,000 to \$44,999	0.247	0.096	**	0.245	0.095	**	0.253	0.095	**	0.252	0.096	**
\$45,000 to \$59,999	0.330	0.113	**	0.323	0.111	**	0.332	0.113	**	0.322	0.113	**
\$60,000 and over	0.330	0.079	***	0.329	0.079	***	0.325	0.079	***	0.330	0.080	***
Highest Level of Education Attained (reference: Less than high school)												
High school or equivalent	0.199	0.080	*	0.200	0.080	**	0.204	0.080	**	0.206	0.081	**
Some postsecondary or higher	0.256	0.056	***	0.265	0.055	***	0.266	0.055	***	0.260	0.056	***
Employment Status (reference: Unemployed)												
Employed	0.357	0.081	***	0.350	0.080	***	0.343	0.080	***	0.331	0.081	***
Not in labour force	0.018	0.088		0.018	0.088		0.006	0.089		0.008	0.089	
Residential School Attendance (reference: Neither respondent nor any family members attended)												
Respondent and/or family member(s) attended	-0.156	0.059	**	-0.143	0.059	*	-0.147	0.058	**	-0.142	0.062	*
Second Set of Treaty Categories (reference: No treaty)												
Modern treaties	-0.172	0.175		-0.164	0.172		-0.174	0.168		-0.175	0.176	
Peace and Friendship/Neutrality treaties	0.106	0.088		0.118	0.088		0.114	0.087		0.105	0.088	
Historic treaties	-0.045	0.049		-0.050	0.049		-0.046	0.048		-0.049	0.050	
Sex (reference: Male)												
Female	-0.174	0.043	***	-0.177	0.041	***	-0.171	0.041	***	-0.179	0.041	***
Indigenous Identification Group (reference: First Nations)												
Métis	0.012	0.061		0.015	0.062		0.015	0.061		0.003	0.063	
Inuit	0.067	0.152		0.055	0.151		0.056	0.146		0.059	0.151	
Multiple Indigenous identities	-0.314	0.304		-0.323	0.307		-0.309	0.312		-0.363	0.317	
Constant	3.284	0.118	***	3.311	0.118	***	3.321	0.119	***	3.323	0.117	***

* P ≤ 0.05 | ** P ≤ 0.01 | *** P ≤ 0.001
 Sample size: 6,750 - 6,820
 Source: APS 2012, Statistics Canada
 Population size: 343,370 - 343,390
 The sample size and population size varies across models. The sample is unbalanced.

In Model 1, participating “At least once a week” in hunting/fishing/trapping in the past year slightly increases mental health by 0.086. This remains in line with hypothesis one, which states that cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples. For the structural determinants, the highest income group increases mental health by 0.328, the highest education group increases by 0.258, and being employed increases by 0.357. This confirms hypothesis 2, which states that mental health for urban Indigenous peoples is improved by higher incomes, higher educational attainment, and employment. Many researchers have pointed to the strong influence of structural determinants on Indigenous mental health (Cooke, Woodhall, & McWhirter, 2013; Hajizadeh, Bombay, & Asada, 2019; Reading & Wien, 2009), and the present analysis follows suit.

For measures of colonialism on mental health, the first measure looked at residential school attendance. Attending or having a family member attend a residential school decreases mental health by 0.140. This finding aligns with other research on the negative effects of residential schooling on mental health (Bombay, Matheson, & Anisman, 2011; Bombay, 2015; Elias et al., 2012; Stout, 2010; Wilk, Maltby, & Cooke, 2017) and confirms my third hypothesis: Indigenous people who have personal or familial experience with residential schooling will have poorer mental health than those who do not. The second measure of colonialism looks at treaty territory of residence, using the second set of treaty categories. Living in areas covered by “Peace and Friendship/Neutrality treaties” increases mental health by 0.106 compared to living in an area not covered by a treaty and living in an area covered by a historic treaty, including the Numbered Treaties, decreases mental health by 0.045. This finding leans toward affirming my

fourth hypothesis that people living in territories covered by the Numbered Treaties will have worse mental health than those living in other treaty territories. The Peace and Friendship and Peace and Neutrality treaties are more rooted in trade and alliance than land agreements of any kind (Miller, 2009) and do not contain the extinguishment clause that I anticipated would negatively impact mental health. For the demographic controls, being female decreases mental health by 0.175, and being Métis or Inuit marginally improves mental health compared to being First Nations or having “multiple Indigenous identities.” These results were unsurprising considering that previous research suggests that Indigenous women have poorer mental health outcomes than men (Grace, 2003; Halseth, 2013) and First Nations People have the highest rates out of the three groups for mental illnesses such as mood or anxiety disorders (Kelly-Scott & Smith, 2015).

The second measure of cultural engagement to test in the regression modeling stage of the APS is wild plant gathering in Model 2. Across the levels of participation, wild plant gathering, at all levels of participation, did not show signs of directly improving mental health. This variable does not show support for my first hypothesis about cultural engagement improving mental health for urban Indigenous peoples. In Model 2, structural determinants remain the strongest predictive factors in the models. For income, making “\$60,000 and over” increases mental health by 0.325. For education, “Some postsecondary or higher” improves mental health by 0.267. For employment status, being “employed” increases mental health by 0.350. These again lead to confirmation of the second hypothesis. Because lower incomes cause reduced choice and opportunity, decreased hope, and poorer access to health care (Isaac & Jamieson, 2015; The National Collaborating Centre for Aboriginal Health, 2009), lower educational attainment causes poorer employment and income prospects, and limited access to

health literacy (Reading & Wien, 2009; Richmond & Ross, 2009; Van der Heide et al., 2013), and unemployment can lead to increased risk of housing instability, heightened food insecurity, and increased stress (Ferdinand, Paradies, Perry, & Kelaher, 2014; Kolahdooz, Nader, Yi, & Sharma, 2015; McIntyre, Bartoo, & Emery, 2014; Safaei, 2008) these findings are not surprising. As is consistent with Model 1 and previous research on the intergenerational impacts of the IRSS (Bombay, Matheson, & Anisman, 2011; Bombay, 2015; Elias et al., 2012; Stout, 2010; Wilk, Maltby, & Cooke, 2017), in Model 2, if the “Respondent and/or family member(s) attended” a residential school, mental health decreases by 0.143. As for the second measure of colonialism in Model 2, “Peace and Friendship/Neutrality treaties” increase mental health by 0.118 and “Historic Treaties” decrease mental health by 0.050. Looking at the demographic control measures in Model 2 with “male” and “First Nations” as the reference groups respectively, being female decreases mental health by 0.175, being Métis increases mental health by 0.025, and being Inuit increases mental health by 0.037.

Model 3 shows the impact of arts/crafts making on self-perceived mental health while controlling for structural determinants, measures of coloniality, and sex and Indigenous identification group. This model shows that none of the levels of participation in arts/crafts making (“At least once this year,” “At least once a month,” and “At least once a week”) increase self-perceived mental health. This runs counter to my first hypothesis and indicates that cultural engagement through arts/crafts making does not improve mental health for urban Indigenous participants in the APS. As has been consistent throughout this research, structural determinants matter significantly. Increased income has a positive impact on mental health with those in the top income bracket having mental health increase by 0.321. Education affects mental health outcomes as well with education at the level of “Some postsecondary or higher” increasing

mental health by 0.267. The third structural determinant, employment, again shows a positive impact. Those who are “employed” have an increase of 0.344. For colonialism effects in Model 3, if the “Respondent and/or family member(s) attended” a residential school, mental health decreases by 0.147. For the impact of treaties, “Peace and Friendship/Neutrality treaties” are the only treaty category that have a positive impact on mental health with an increase of 0.114 and “Historic treaties” decrease mental health by 0.046. Turning to the demographic controls, being female decreases mental health by 0.170, and being Métis or Inuit increases mental health by 0.026 and 0.043 respectively. These consistent patterns among the demographic controls remain in line with the reviewed literature.

Model 4 puts Indigenous language ability at the forefront. When accounting for structural determinants, colonial impacts, and controls, none of the levels of ability to speak an Aboriginal language in this question from the APS show signs of improving mental health. This again runs counter to previous research on the impact of language knowledge on mental health (Bals, Turi, Skre, & Kvernmo, 2010; MacDonald, Ford, Willox, & Ross, 2013), and suggests that the value of knowing one’s own Indigenous language in an urban area may have a different impact on mental wellness than it would in rural or on-reserve areas. It is possible that using one’s Indigenous language in multicultural and settler dominated spaces such as cities is less useful or even marginalizing in urban contexts where Indigenous people may come up against systemic barriers or relational racism. Previous research has suggested that English has become the necessary language for Indigenous peoples to know and use in cities to obtain a higher education, find and maintain work, and alleviate racism (Baloy, 2011).

In this final regression Model, structural determinants remain a strong force. The top income group increases mental health by 0.327, the top education group increases mental health

by 0.261, and being “employed” increases mental health by 0.331. Having a relationship with the IRSS once again shows a decrease in mental health of 0.126. When “No treaty” is used as the reference, “Peace and Friendship/Neutrality treaties” create a positive impact on mental health of 0.105 and “Historic treaties” decrease mental health by 0.049. For the demographic controls, being a female decreases mental health by 0.178, and being Métis or Inuit increases mental health by 0.014 and 0.046 respectively.

While findings are fairly consistent across the geographic measures, to view the four models using region of residence or the First Set of Treaty Categories as the geographic measure of colonialism, please see Appendices C and D.

5.7 SUMMARY OF ANALYSIS FOR REGRESSION MODELING

The previous table showed the linear regression results of Hunting/Fishing/Trapping in the Last Year, Arts/Crafts Made in the Last Year, Wild Plants Gathered in the Last Year, and Level of Aboriginal Language Ability regressed with structural determinants, measures of colonization, and demographic controls on Self-Perceived Mental Health.

The findings consistently show the strong impact that higher income, higher education, and employment have on mental health over cultural practices for urban Indigenous peoples. These findings closely align with previous research highlighting the effect of structural determinants on mental health for Indigenous peoples (Cooke, Woodhall, & McWhirter, 2013; Moyser, 2017; Reading & Wien, 2009; Sharpe & Arsenault, 2010; Sisco, Caron-Vuotari, Stonebridge, Sutherland, & Rhéaume, 2012; Van der Heide et al., 2013). It also echoes the “First Nations Mental Wellness Continuum Framework,” which suggests that one of the four core components of mental wellness is purpose, encompassing education and employment among others.

Having a personal or family relationship with the IRSS consistently proved to be a predictor of poorer mental health. Additionally, the tables showed the small impact that treaties have on mental health with “Peace and Friendship/Neutrality treaties” showing small signs of improving mental health.

As for the controls, the findings were as expected: being female decreased mental health outcomes across the board and those who are Métis or Inuit showed the best mental health outcomes amongst the Indigenous identification groups.

Measures of Indigenous cultural continuity did not show clear signs of improving mental wellness and there was little support of the cultural engagement hypothesis. Though this seems to run counter to the expected findings of this research, as will be discussed in Chapter 6, I would suggest that instead, it points to a few possible explanations. First, that more conventionally understood cultural practices may be inaccessible for Indigenous people in cities due to distance or travel costs. Second, that there has been a poor capturing of urban Indigenous cultural participation in government surveys such as the APS. Finally, that the diverse levels of connection to Indigenous cultures and identities found in urban contexts may make it so that there is a less direct and more nuanced connection between cultural engagement and mental health for Indigenous peoples living in urban centres.

CHAPTER 6 URBAN INDIGENOUS CULTURE(S)

This chapter looks at what is lacking in the APS and strives to fill in some of those holes with the UAPS. There was a narrow array of questions posed in the APS that account for Indigenous cultural participation. More specifically, there was a failure to capture diverse ways of practicing Indigeneity in urban contexts. The UAPS, which was conducted by over 100 interviewers, almost all of whom were Indigenous themselves, does a better job of capturing diverse and evolving forms of Indigenous cultural engagement in cities.

6.1 URBAN INDIGENOUS CULTURES AND IDENTITIES

The UAPS asks a core question to tap into this discussion of practicing Indigeneity. It asks, “In your opinion, what aspects of Aboriginal culture are most important to be passed on to your children or grandchildren, or to the next generation?” Table 7 shows the response UAPS participants offered.

Table 7. Responses to the question: *In your opinion, what aspects of Aboriginal culture are most important to be passed on to your children or grandchildren, or to the next generation?*

Most Important Aspects of Aboriginal Culture to Pass on to Next Generation		
Aspect to Pass on	Freq.	Percent
Language	1,739	67%
Customs/traditions	1,556	60%
Family values	1,400	54%
Spirituality	1,352	52%
Ceremonies	1,222	47%
Elders	1,202	46%
Celebrations/events	1,108	42%
Food	1,067	41%
Music	1,064	41%
Art	1,056	40%
Ethics	915	35%
Land/space	901	34%
Leadership	832	32%
History	146	6%
Everything/entire culture (general)	116	4%
Teachings/beliefs/values	70	3%
Stories/storytelling	64	2%
Respect for others	36	1%
Medicines/healing practices	36	1%
Community spirit/sharing	36	1%
Hunting/fishing	35	1%
Family band/tree/geneology/lineage	34	1%
Self-identity	27	1%
Dancing	24	1%
Survival skills/living off the land	21	1%
Treaty Rights/Status	19	1%
Pride	16	1%
Respect for nature/wildlife	16	1%
Education	15	1%
Traditional dress/clothing	13	0%
Ancestors/ancestry	11	0%

Source: UAPS 2010, Environics Institute

Fifty-four percent of participants highlighted the importance of family values, 52% mentioned spirituality, 41% noted food, 41% spoke of music, 35% stated ethics, 2% said storytelling, and 1% spoke of dancing. What is particularly notable about this list is how many of these aspects

are not accounted for in the APS, and that one of the only elements that is accounted for in the APS, hunting, was mentioned by only about 1% of participants in UAPS. In order to explore culture as it is valued and practiced, it is necessary to know, from the people, what they cherish most as opposed to assuming what is and is not core to culture.

There are several other instances of probing into culture and participation in the UAPS, such as questions about Friendships with Other Aboriginal the People, Use of Aboriginal Services or Organizations, Participation in Aboriginal Political Group(s), Voting in Aboriginal Elections, Importance of Aboriginal Spirituality, Availability of Cultural Activities, Participation in Aboriginal Cultural Activities, and Ease of Access to Aboriginal Healing Practices (see Appendix E for frequencies).

In Table 8, I report bivariate results of eight measures of cultural engagement from the UAPS on overall happiness with life in order to explore hypothesis one with the UAPS: cultural engagement through practices including hunting, fishing, and gathering, artistic expression, visiting Friendship Centres, spending time with elders, and speaking an Indigenous language improves mental health for urban Indigenous peoples.

Table 8. *Impact of cultural engagement on happiness with life*

Happiness With Life by Cultural Engagement				
Variable	Not At All	Not Very	Somewhat	Very
<i>Close Friends in the City Who Are Aboriginal</i>				
None	4%	3%	35%	57%
A few	2%	6%	38%	54%
Some	1%	4%	40%	54%
Many	1%	3%	34%	61%
<i>Frequency of Use of Aboriginal Services or Organizations</i>				
Never	2%	4%	30%	64%
Rarely	1%	4%	38%	57%
Occasionally	1%	4%	40%	55%
Often	2%	5%	36%	57%
<i>Participation in Aboriginal Political Group(s)</i>				
No	2%	4%	38%	55%
Yes	1%	2%	29%	67%
<i>Frequency of Voting in Elections for Aboriginal Political Organizations</i>				
Never	2%	6%	38%	54%
Rarely	2%	3%	40%	54%
Occasionally	0%	3%	36%	61%
Often	1%	3%	30%	65%
<i>Importance of Aboriginal Spirituality in Respondent's Life</i>				
Not at all important	2%	5%	33%	61%
Not very important	1%	6%	38%	55%
Somewhat important	0%	4%	41%	55%
Very important	2%	4%	34%	60%
<i>Availability of Aboriginal Cultural Activities</i>				
None	3%	6%	39%	52%
A few	2%	3%	43%	52%
Some	1%	4%	35%	59%
A lot	1%	3%	33%	62%
<i>Frequency of Participation in Aboriginal Cultural Activities</i>				
Never	2%	7%	32%	58%
Rarely	1%	6%	42%	50%
Occasionally	1%	2%	38%	58%
Often	1%	3%	30%	66%
<i>Ease of Access to Aboriginal Healing Practices</i>				
Very difficult	3%	6%	42%	48%
Somewhat difficult	1%	6%	42%	51%
Somewhat easy	1%	3%	40%	55%
Very easy	1%	3%	26%	69%

Source: UAPS 2010, Environics Institute

Six out of the eight variables listed show that higher cultural engagement is correlated with higher percentages of those feeling “very” happy with their lives. As examples, 61% of those who have “many” close friends in the city who are Aboriginal are “very” happy with their lives, 67% of those who participated in Aboriginal political group(s) said that they were “very” happy with their lives, and 69% of participants who said accessing Aboriginal healing practices was “very easy” said the same. For the sake of contrast, in Table 5, *Impact of cultural engagement on mental wellness*, I looked at six variables from the APS that measured cultural engagement. Out of those six variables, only Hunting/Fishing/Trapping showed the highest rate of “excellent” mental health correspond with the highest rate of engagement (“at least once a week”). This contrast in findings lends support to my earlier suggestion that measures of cultural participation in the APS do not, perhaps, correspond with the ways in which culture is actually practiced by Indigenous peoples in cities. It is valuable to note that the UAPS dataset is measuring overall happiness with life and not specifically mental health.

The final table, Table 9, addresses a piece that is nonexistent in the APS: strength of identity. As Chapter 2 highlighted, Indigenous identities have evolved and grown to incorporate newly identifying Indigenous people (Leroux & Gaudry, 2017), and while some people are deeply connected to their identities, others may be less so.

Table 9. *Measuring strength of identity*

Cultural Identity		
Variable	Freq.	Percent
<i>Proud to be First Nations/Métis/Inuit</i>		
Not at all proud	9	0%
Not very proud	17	1%
Somewhat proud	294	12%
Very proud	2235	87%
<i>Proud to be Canadian</i>		
Not at all proud	99	4%
Not very proud	97	4%
Somewhat proud	456	18%
Very proud	1,826	74%
<i>Frequency of hiding Aboriginal identity</i>		
Never	2117	82%
Rarely	263	10%
Occasionally	157	6%
Often	38	1%
<i>Knowledge of Aboriginal Ancestry</i>		
Not well at all	366	14%
Not very well	629	24%
Fairly well	851	33%
Very well	755	29%

Source: UAPS 2010, Environics Institute

Table 9 shows that 87% of participants in the UAPS reported that they are “very proud” to be First Nations/Métis/Inuit and 74% said that they are “very proud” to be Canadian. When it comes to hiding their Aboriginal identities, 17% of respondents reported hiding that part of themselves at a rate between “rarely” and “often.” The last question about identity that I chose to look at for this research asked participants about their knowledge of their Aboriginal ancestry and the responses were quite divided. At the lowest rate, 14% of participants felt they knew their Aboriginal ancestry “not well at all,” and the largest group of participants, 33%, felt they knew their Aboriginal ancestry “fairly well.” Since so much research has shown that having a strong sense of ethnic pride, attachment, and belonging positively affect mental health (Mossakowski,

2003; Smokowski, Evans, Cotter, & Webber, 2014) these high levels of strength of identity are a positive for the mental health of urban Indigenous peoples.

6.2 DEFINING CULTURES AND MOVING FORWARD

In this chapter, univariate and bivariate analysis of variables from the UAPS has shown the considerable diversity of cultural participation among urban Indigenous peoples. UAPS participants listed 31 different aspects of their cultures that they felt were important to pass on to the next generation, the vast majority of which were not accounted for in the APS. I looked at measures of cultural engagement in the UAPS against reported happiness with life, as a proxy for mental wellness, and consistently found that higher rates of engagement were correlated with higher levels of happiness with life. Finally, I drew attention to the UAPS's measures of strength of identity: Proud to be First Nations/Métis/Inuit, proud to be Canadian, frequency of hiding Aboriginal identity, and knowledge of Aboriginal ancestry. These measures help to account for the diverse levels of identity among urban Indigenous peoples, an element that is valuable for protecting mental wellness.

As other researchers have suggested, practicing Indigeneity in urban contexts may look different than it does in rural or on-reserve settings (Peters & Andersen, 2013; Silver, Hay, & Gorzen, 2005). Indigeneity is not only about *being* it is also about *becoming* (Peters, 2013), and including measures of cultural engagement such as political participation in Indigenous organizations and being able to access Indigenous healing practices may be at the heart of the ever-evolving *becoming* piece of urban Indigeneity. The UAPS offers a different picture from that of the APS – broadening definitions of what it means to practice and engage with culture and incorporating strength of identity/ies. What these variables have shown is that the APS fails to capture the unique and diverse ways that Indigenous peoples living in cities practice their

cultures. Having solely multiple-choice questions about cultural participation in the APS versus open-ended cultural participation questions such as in the UAPS may account for some of this divergence. As noted in Chapter 3, the APS lacks the qualitative side of urban Indigenous experiences in exchange for a wider breadth of topics and questions. As a survey with a specific focus on off-reserve Indigenous peoples, however, it is incumbent upon the APS to do a better job of incorporating Indigenous cultural engagement practices that are relevant to and valued by urban Indigenous peoples.

CHAPTER 7 CONCLUSION

My research has focused on the impacts of cultural engagement, structural determinants, and colonialism on the mental health of urban Indigenous peoples in Canada by using the 2012 Aboriginal Peoples Survey (APS) and the 2010 Urban Aboriginal Peoples Study (UAPS). Analysis has shown that using cultural engagement to protect mental health for urban Indigenous peoples in Canada is not as simple as promoting participation in a select handful of cultural activities such as wild plant gathering or arts and crafts making. Though there is some evidence to show that regularly getting out on the land to hunt, fish, or trap could improve mental health, further research on the broader impacts of cultural participation on urban Indigenous communities is needed. Previous research, analyzing on-reserve contexts, has shown a notable impact of cultural engagement on the mental health of Indigenous peoples (Bals, Turi, Skre, & Kvernmo, 2010; Chandler & Lalonde, 1998; MacDonald, Ford, Willox, & Ross, 2013). The inconclusiveness of my analysis on the impact of cultural engagement and mental wellness points to a need for further consideration of how levels of Indigenous identity and varied ways of practicing Indigeneity impact the way that cultural continuity affects urban Indigenous populations.

My research shows that structural determinants (such as income, education, and employment) are the strongest predictors of mental health among urban Indigenous peoples according to data from the APS. Consistently across the regression models, higher incomes, higher educational attainment, and employment improved mental health for urban Indigenous peoples in the APS. This finding was directly in line with previous research on the effects of structural determinants such as income, education, and employment on Indigenous mental health (Cooke, Woodhall, & McWhirter, 2013; Hajizadeh, Bombay, & Asada, 2019; Reading & Wien,

2009). It is apparent that income, education, and employment equity are essential for protecting the mental wellness of urban Indigenous peoples in Canada.

Additionally, I have shown that the trauma caused by the Indian Residential School System (IRSS) negatively impacts the mental health of both people who attended the schools and their family members. These findings are in line with previous research, which has shown that residential schools cause intergenerational trauma and increases the risk of depression, strained relationships, and even abuse amongst survivors and their families (Bombay, Matheson, & Anisman, 2011; Bombay, 2015; Elias et al., 2012; Stout, 2010; Wilk, Maltby, & Cooke, 2017). The second measure of colonialism in this study, treaties, also showed some impact on mental health outcomes. Though not as strong of a relationship as structural determinants or the IRSS measure of colonialism, my research has highlighted the higher mental wellness outcomes among people living in areas covered by treaties of Peace and Friendship and Peace and Neutrality compared to those living in areas covered by Historic treaties with the contentious “extinguishment clause.”

Finally, I called into question the validity of cultural engagement measures in the APS by pointing to the diversity of ways that urban Indigenous people in the UAPS refer to and engage with their cultures. The UAPS incorporates measures of evolving cultural participation in urban contexts such as political engagement and healing practices as opposed to only incorporating measures that may better reflect experiences of being Indigenous on reserves or in rural areas. Reflecting a diversity of ways of practicing Indigeneity is lacking in the APS and my research recommends broader incorporation of cultural engagement measures in future government surveying.

The picture of Indigenous mental wellness for urban Indigenous people in the APS, overall, is a positive one. The majority of participants report “very good” and even “excellent” mental health. As rapidly growing and increasingly urbanized populations, the realities of Indigenous peoples in Canadian cities are essential to explore and understand. Working to broaden cultural engagement opportunities in cities, increase access to income, education, and employment opportunities, decolonize our institutions, and repair our treaty relationships will be essential to maintaining and improving mental wellness for urban Indigenous peoples in Canada.

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APPENDIX A First Set of Treaty Categories

CITY (ncmaca)	TREATY	TYPE
Abbotsford - Mission	None	No treaty
Alma	None	No treaty
Baie-Comeau	None	No treaty
Bay Roberts	None	No treaty
Chilliwack	None	No treaty
Corner Brook	None	No treaty
Cowansville	None	No treaty
Cranbrook	None	No treaty
Dolbeau-Mistassini	None	No treaty
Drummondville	None	No treaty
Granby	None	No treaty
Grand Falls-Windsor	None	No treaty
Joliette	None	No treaty
Kamloops	None	No treaty
Kelowna	None	No treaty
Lachute	None	No treaty
Montréal	None	No treaty
Ottawa - Gatineau (Quebec Part)	None	No treaty
Penticton	None	No treaty
Rouyn-Noranda	None	No treaty
Saint-Hyacinthe	None	No treaty
Saint-Jean-Sur-Richelieu	None	No treaty
Salaberry-de-Valleyfield	None	No treaty
Salmon Arm	None	No treaty
Sept-Îles	None	No treaty
Sherbrooke	None	No treaty
Sorel-Tracy	None	No treaty
St. John's	None	No treaty
Trois-Rivières	None	No treaty
Val-D'or	None	No treaty
Vernon	None	No treaty
Victoriaville	None	No treaty
Amos	Eeyou Marine Region Lands Claims Agreement	Indigenous land title

Brantford	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Indigenous land title
Centre Wellington	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Indigenous land title
Kitchener - Cambridge - Waterloo	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Indigenous land title
Powell River	Tla'amin Nation Final Agreement	Indigenous land title
Prince George	The Lheidli T'enneh Final Agreement	Indigenous land title
Whitehorse	Kwanlin Dun First Nation Final Agreement (2005)/Ta'an Kwach'an Council Final Agreement (2002)	Indigenous land title
Bathurst	Peace and Friendship (1725-1779)	Peace and Friendship
Campbellton (New Brunswick Part)	Peace and Friendship (1725-1779)	Peace and Friendship
Campbellton (Quebec Part)	Peace and Friendship (1725-1779)	Peace and Friendship
Cape Breton	Peace and Friendship (1725-1779)	Peace and Friendship
Charlottetown	Peace and Friendship (1725-1779)	Peace and Friendship
Edmundston	Peace and Friendship (1725-1779)	Peace and Friendship
Fredericton	Peace and Friendship (1725-1779)	Peace and Friendship
Halifax	Peace and Friendship (1725-1779)	Peace and Friendship
Kentville	Peace and Friendship (1725-1779)	Peace and Friendship
Matane	Peace and Friendship (1725-1779)	Peace and Friendship
Miramichi	Peace and Friendship (1725-1779)	Peace and Friendship
Moncton	Peace and Friendship (1725-1779)	Peace and Friendship
New Glasgow	Peace and Friendship (1725-1779)	Peace and Friendship
Rimouski	Peace and Friendship (1725-1779)	Peace and Friendship
Rivière-du-Loup	Peace and Friendship (1725-1779)	Peace and Friendship

Saguenay	Peace and Friendship (1725-1779)	Peace and Friendship
Saint John	Peace and Friendship (1725-1779)	Peace and Friendship
Summerside	Peace and Friendship (1725-1779)	Peace and Friendship
Truro	Peace and Friendship (1725-1779)	Peace and Friendship
Québec	Nionwentsio (1670 Murray Treaty)	Peace and neutrality
Saint-Georges	Nionwentsio (1670 Murray Treaty)	Peace and neutrality
Shawinigan	Nionwentsio (1670 Murray Treaty)	Peace and neutrality
Brandon	Treaty 2 (1871)	Ceded land
Brooks	Treaty 7 (1877)	Ceded land
Calgary	Treaty 7 (1877)	Ceded land
Camrose	Treaty 6 (1876/1889)	Ceded land
Canmore	Treaty 7 (1877)	Ceded land
Cobourg	Williams Treaties (1923)	Ceded land
Cold Lake	Treaty 6 (1876/1889)	Ceded land
Dawson Creek	Treaty 8 (1899)	Ceded land
Edmonton	Treaty 6 (1876/1889)	Ceded land
Elliot Lake	Robinson-Huron (Treaty 61, 1850)	Ceded land
Estevan	Treaty 4 (1874)	Ceded land
Fort St. John	Treaty 8 (1899)	Ceded land
Grande Prairie	Treaty 8 (1899)	Ceded land
Greater Sudbury	Robinson-Huron (Treaty 61, 1850)	Ceded land
Guelph	Williams Treaties (1923)	Ceded land
High River	Treaty 7 (1877)	Ceded land
Kenora	Treaty 3 (1873)	Ceded land
Lacombe	Treaty 6 (1876/1889)	Ceded land
Leamington	Treaty 2 (1871)	Ceded land
Lethbridge	Treaty 7 (1877)	Ceded land
Lloydminster (Alberta Part)	Treaty 6 (1876/1889)	Ceded land
Lloydminster (Saskatchewan Part)	Treaty 6 (1876/1889)	Ceded land
Medicine Hat	Treaty 7 (1877)	Ceded land
Moose Jaw	Treaty 4 (1874)	Ceded land
Nanaimo	Douglas Treaties (1850-1854)	Ceded land
Norfolk	Treaty 3 (1873)	Ceded land
North Battleford	Treaty 6 (1876/1889)	Ceded land

North Bay	Robinson-Huron (Treaty 61, 1850)	Ceded land
Okotoks	Treaty 7 (1877)	Ceded land
Orillia	Williams Treaties (1923)	Ceded land
Oshawa	Williams Treaties (1923)	Ceded land
Parksville	Douglas Treaties (1850-1854)	Ceded land
Petawawa	Williams Treaties (1923) and Robinson-Huron Treaty	Ceded land
Port Hope	Williams Treaties (1923)	Ceded land
Portage La Prairie	Treaty 1 (1871)	Ceded land
Prince Albert	Treaty 6 (1876/1889)	Ceded land
Red Deer	Treaty 7 (1877)	Ceded land
Regina	Treaty 4 (1874)	Ceded land
Saskatoon	Treaty 6 (1876/1889)	Ceded land
Sault Ste. Marie	Robinson-Huron (Treaty 61, 1850)	Ceded land
Steinbach	Treaty 1 (1871)	Ceded land
Strathmore	Treaty 7 (1877)	Ceded land
Swift Current	Treaty 4 (1874)	Ceded land
Sylvan Lake	Treaty 6 (1876/1889)	Ceded land
Temiskaming Shores	Robinson-Huron (Treaty 61, 1850)	Ceded land
Thompson	Treaty 5 (1875/1908)	Ceded land
Timmins	James Bay Treaty, No.9 (Adhesions in 1929 and 1930)	Ceded land
Victoria	Douglas Treaties (1850-1854)	Ceded land
Wetaskiwin	Treaty 6 (1876/1889)	Ceded land
Winnipeg	Treaty 1 (1871)	Ceded land
Wood Buffalo	Treaty 8 (1899)	Ceded land
Woodstock	Treaty 3 (1873)	Ceded land
Yellowknife	Treaty 11 (1921)	Ceded land
Yorkton	Treaty 4 (1874)	Ceded land
Barrie	Lake Simcoe-Nottawasaga Treaty, No. 18 (1818)	Purchased land
Belleville	Crawford Purchases (1783)	Purchased land
Brockville	Crawford Purchases (1783)	Purchased land
Chatham-Kent	McKee Treaty, No. 2 (1790)	Purchased land
Collingwood	Lake Simcoe-Nottawasaga Treaty, No. 18 (1818)	Purchased land
Cornwall	Crawford Purchases (1783)	Purchased land
Hamilton	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Purchased land
Hawkesbury (Ontario Part)	Crawford Purchases (1783)	Purchased land
Ingersoll	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Purchased land
Kawartha Lakes	Rice Lake Treaty, No. 20 (1818)	Purchased land
Kingston	Crawford Purchases (1783)	Purchased land

London	London Township Treaty, 6	Purchased land
Midland	Lake Simcoe Treaty, No. 16 (1815)	Purchased land
Ottawa - Gatineau (Ontario Part)	Crawford Purchases (1783)	Purchased land
Owen Sound	Saugeen Treaty 45 1/2, 1836	Purchased land
Pembroke	Rideau Purchase, No. 27¼ (1822)	Purchased land
Peterborough	Rice Lake Treaty, No. 20 (1818)	Purchased land
Sarnia	Huron Tract, No. 29 (1827)	Purchased land
St. Catharines - Niagara	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Purchased land
Thunder Bay	Robinson-Superior Treaty (1850)	Purchased land
Tillsonburg	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Purchased land
Toronto	Johnson-Butler Purchase/ Williams Treaties (1923)/Toronto Purchase	Purchased land
Windsor	McKee Treaty, No. 2 (1790)	Purchased land

APPENDIX B Second Set of Treaty Categories

CITY (ncmaca)	TREATY	TYPE
Abbotsford - Mission	None	No treaty
Alma	None	No treaty
Baie-Comeau	None	No treaty
Bay Roberts	None	No treaty
Chilliwack	None	No treaty
Corner Brook	None	No treaty
Cowansville	None	No treaty
Cranbrook	None	No treaty
Dolbeau-Mistassini	None	No treaty
Drummondville	None	No treaty
Granby	None	No treaty
Grand Falls-Windsor	None	No treaty
Joliette	None	No treaty
Kamloops	None	No treaty
Kelowna	None	No treaty
Lachute	None	No treaty
Montréal	None	No treaty
Ottawa - Gatineau (Quebec Part)	None	No treaty
Penticton	None	No treaty
Rouyn-Noranda	None	No treaty
Saint-Hyacinthe	None	No treaty
Saint-Jean-Sur-Richelieu	None	No treaty
Salaberry-De-Valleyfield	None	No treaty
Salmon Arm	None	No treaty
Sept-Îles	None	No treaty
Sherbrooke	None	No treaty
Sorel-Tracy	None	No treaty
St. John's	None	No treaty
Trois-Rivières	None	No treaty
Val-D'or	None	No treaty
Vernon	None	No treaty
Victoriaville	None	No treaty
Amos	Eeyou Marine Region Lands Claims Agreement	Modern Treaties

Brantford	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Modern Treaties
Centre Wellington	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Modern Treaties
Kitchener - Cambridge - Waterloo	Crown Grant to the Six Nations or The Haldimand Tract, No. 4 (1793)	Modern Treaties
Powell River	Tla'amin Nation Final Agreement	Modern Treaties
Prince George	The Lheidli T'enneh Final Agreement	Modern Treaties
Whitehorse	Kwanlin Dun First Nation Final Agreement (2005)/Ta'an Kwach'an Council Final Agreement (2002)	Modern Treaties
Bathurst	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Campbellton (New Brunswick Part)	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Campbellton (Quebec Part)	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Cape Breton	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Charlottetown	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Edmundston	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Fredericton	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Halifax	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Kentville	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Matane	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Miramichi	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality

Moncton	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
New Glasgow	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Québec	Nionwentsïo (1670 Murray Treaty)	Peace and Friendship/ Neutrality
Rimouski	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Rivière-du-Loup	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Saguenay	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Saint John	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Saint-Georges	Nionwentsïo (1670 Murray Treaty)	Peace and Friendship/ Neutrality
Shawinigan	Nionwentsïo (1670 Murray Treaty)	Peace and Friendship/ Neutrality
Summerside	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Truro	Peace and Friendship (1725-1779)	Peace and Friendship/ Neutrality
Barrie	Lake Simcoe-Nottawasaga Treaty, No. 18 (1818)	Historic Treaties
Belleville	Crawford Purchases (1783)	Historic Treaties
Brandon	Treaty 2 (1871)	Historic Treaties
Brockville	Crawford Purchases (1783)	Historic Treaties
Brooks	Treaty 7 (1877)	Historic Treaties
Calgary	Treaty 7 (1877)	Historic Treaties
Camrose	Treaty 6 (1876/1889)	Historic Treaties
Canmore	Treaty 7 (1877)	Historic Treaties
Chatham-Kent	McKee Treaty, No. 2 (1790)	Historic Treaties
Cobourg	Williams Treaties (1923)	Historic Treaties
Cold Lake	Treaty 6 (1876/1889)	Historic Treaties
Collingwood	Lake Simcoe-Nottawasaga Treaty, No. 18 (1818)	Historic Treaties

Cornwall	Crawford Purchases (1783)	Historic Treaties
Dawson Creek	Treaty 8 (1899)	Historic Treaties
Edmonton	Treaty 6 (1876/1889)	Historic Treaties
Elliot Lake	Robinson-Huron (Treaty 61, 1850)	Historic Treaties
Estevan	Treaty 4 (1874)	Historic Treaties
Fort St. John	Treaty 8 (1899)	Historic Treaties
Grande Prairie	Treaty 8 (1899)	Historic Treaties
Greater Sudbury	Robinson-Huron (Treaty 61, 1850)	Historic Treaties
Guelph	Williams Treaties (1923)	Historic Treaties
Hamilton	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Historic Treaties
Hawkesbury (Ontario Part)	Crawford Purchases (1783)	Historic Treaties
High River	Treaty 7 (1877)	Historic Treaties
Ingersoll	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Historic Treaties
Kawartha Lakes	Rice Lake Treaty, No. 20 (1818)	Historic Treaties
Kenora	Treaty 3 (1873)	Historic Treaties
Kingston	Crawford Purchases (1783)	Historic Treaties
Lacombe	Treaty 6 (1876/1889)	Historic Treaties
Leamington	Treaty 2 (1871)	Historic Treaties
Lethbridge	Treaty 7 (1877)	Historic Treaties
Lloydminster (Alberta Part)	Treaty 6 (1876/1889)	Historic Treaties
Lloydminster (Saskatchewan Part)	Treaty 6 (1876/1889)	Historic Treaties
London	London Township Treaty, 6	Historic Treaties
Medicine Hat	Treaty 7 (1877)	Historic Treaties
Midland	Lake Simcoe Treaty, No. 16 (1815)	Historic Treaties
Moose Jaw	Treaty 4 (1874)	Historic Treaties
Nanaimo	Douglas Treaties (1850-1854)	Historic Treaties
Norfolk	Treaty 3 (1873)	Historic Treaties
North Battleford	Treaty 6 (1876/1889)	Historic Treaties
North Bay	Robinson-Huron (Treaty 61, 1850)	Historic Treaties
Okotoks	Treaty 7 (1877)	Historic Treaties
Orillia	Williams Treaties (1923)	Historic Treaties
Oshawa	Williams Treaties (1923)	Historic Treaties
Ottawa - Gatineau (Ontario Part)	Crawford Purchases (1783)	Historic Treaties
Owen Sound	Saugeen Treaty 45 1/2, 1836	Historic Treaties
Parksville	Douglas Treaties (1850-1854)	Historic Treaties
Pembroke	Rideau Purchase, No. 27¼ (1822)	Historic Treaties
Petawawa	Williams Treaties (1923) and Robinson-Huron Treaty	Historic Treaties

Peterborough	Rice Lake Treaty, No. 20 (1818)	Historic Treaties
Port Hope	Williams Treaties (1923)	Historic Treaties
Portage La Prairie	Treaty 1 (1871)	Historic Treaties
Prince Albert	Treaty 6 (1876/1889)	Historic Treaties
Red Deer	Treaty 7 (1877)	Historic Treaties
Regina	Treaty 4 (1874)	Historic Treaties
Sarnia	Huron Tract, No. 29 (1827)	Historic Treaties
Saskatoon	Treaty 6 (1876/1889)	Historic Treaties
Sault Ste. Marie	Robinson-Huron (Treaty 61, 1850)	Historic Treaties
St. Catharines - Niagara	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Historic Treaties
Steinbach	Treaty 1 (1871)	Historic Treaties
Strathmore	Treaty 7 (1877)	Historic Treaties
Swift Current	Treaty 4 (1874)	Historic Treaties
Sylvan Lake	Treaty 6 (1876/1889)	Historic Treaties
Temiskaming Shores	Robinson-Huron (Treaty 61, 1850)	Historic Treaties
Thompson	Treaty 5 (1875/1908)	Historic Treaties
Thunder Bay	Robinson-Superior Treaty (1850)	Historic Treaties
Tillsonburg	Between the Lakes Purchase and Collins Purchase, No. 3 (1792)	Historic Treaties
Timmins	James Bay Treaty, No.9 (Adhesions in 1929 and 1930)	Historic Treaties
Toronto	Johnson-Butler Purchase/ Williams Treaties (1923)/Toronto Purchase	Historic Treaties
Victoria	Douglas Treaties (1850-1854)	Historic Treaties
Wetaskiwin	Treaty 6 (1876/1889)	Historic Treaties
Windsor	McKee Treaty, No. 2 (1790)	Historic Treaties
Winnipeg	Treaty 1 (1871)	Historic Treaties
Wood Buffalo	Treaty 8 (1899)	Historic Treaties
Woodstock	Treaty 3 (1873)	Historic Treaties
Yellowknife	Treaty 11 (1921)	Historic Treaties
Yorkton	Treaty 4 (1874)	Historic Treaties

APPENDIX C Self-Perceived Mental Health by Cultural Engagement, Structural Determinants, Colonialism, and Demographics with First Set of Treaty Categories as the Residential Geography

Variable	Model 1			Model 2			Model 3			Model 4		
	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value
Hunting/Fishing/Trapping Done in the Last Year (reference: Not at all this year)												
At least once this year	-0.048	0.063										
At least once a month	-0.004	0.060										
At least once a week	0.103	0.064										
Wild Plant Gathering Done in the Last Year (reference: Not at all this year)												
At least once this year			*	-0.163	0.072							
At least once a month				-0.088	0.068							
At least once a week				-0.049	0.075							
Arts/Crafts Made in the Last Year (reference: Not at all this year)												
At least once this year				-0.072	0.096							
At least once a month				-0.218	0.096	*						
At least once a week				-0.035	0.066							
Ability to Speak an Aboriginal Language (reference: Does not speak an Aboriginal language)												
Speaks only a few words/speaks with effort												
Speaks relatively/very well												
Total Household Income (reference: Less than \$15,000)												
\$15,000 to \$29,999	0.014	0.109		0.011	0.109		0.012	0.107		0.008	0.110	
\$30,000 to \$44,999	0.245	0.095	**	0.243	0.095	**	0.251	0.095	**	0.250	0.096	**
\$45,000 to \$59,999	0.328	0.111	**	0.321	0.109	**	0.330	0.112	**	0.320	0.111	**
\$60,000 and over	0.328	0.080	***	0.327	0.079	***	0.322	0.080	***	0.328	0.080	***
Highest Level of Education Attained (reference: Less than high school)												
High school or equivalent	0.200	0.081	*	0.201	0.081	**	0.205	0.080	**	0.207	0.082	**
Some postsecondary or higher	0.255	0.055	***	0.264	0.055	***	0.265	0.054	***	0.258	0.055	***
Employment Status (reference: Unemployed)												
Employed	0.358	0.081	***	0.351	0.081	***	0.345	0.081	***	0.333	0.081	***
Not in labour force	0.018	0.088		0.018	0.088		0.006	0.089		0.008	0.089	
Residential School Attendance (reference: Neither respondent nor any family members attended)												
Respondent and/or family member(s) attended	-0.154	0.056	**	-0.141	0.056	**	-0.144	0.056	**	-0.140	0.061	*
First Set of Treaty Categories (reference: No treaty)												
Indigenous land title	-0.172	0.175		-0.164	0.172		-0.174	0.168		-0.175	0.176	
Peace and Friendship treaties	0.095	0.103		0.109	0.102		0.105	0.101		0.095	0.102	
Peace and Neutrality treaties	0.139	0.132		0.143	0.129		0.143	0.137		0.134	0.133	
Ceded land	-0.054	0.049		-0.059	0.049		-0.057	0.049		-0.058	0.050	
Purchased land	-0.023	0.084		-0.027	0.085		-0.016	0.081		-0.026	0.085	
Sex (reference: Male)												
Female	-0.174	0.043	***	-0.177	0.041	***	-0.171	0.041	***	-0.179	0.041	***
Indigenous Identification Group (reference: First Nations)												
Métis	0.015	0.057		0.019	0.058		0.020	0.058		0.008	0.058	
Inuit	0.066	0.151		0.053	0.150		0.054	0.145		0.057	0.150	
Multiple Indigenous identities	-0.313	0.304		-0.323	0.306		-0.308	0.312		-0.362	0.317	
Constant	3.284	0.118	***	3.311	0.118	***	3.320	0.119	***	3.322	0.117	***

Sample size: 6,750 - 6,820
Population size: 343,370 - 343,390
The sample size and population size varies across models. The sample is unbalanced.

APPENDIX D Self-Perceived Mental Health by Cultural Engagement, Structural Determinants, Colonialism, and Demographics with Region as the Residential Geography

Variable	Model 1			Model 2			Model 3			Model 4		
	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value	Coef.	S.E.	P-value
Hunting/Fishing/Trapping Done in the Last Year (reference: Not at all this year)												
At least once this year	-0.055	0.063										
At least once a month	-0.014	0.060										
At least once a week	0.086	0.063										
Wild Plant Gathering Done in the Last Year (reference: Not at all this year)												
At least once this year			*	-0.170	0.072							
At least once a month				-0.096	0.067							
At least once a week				-0.056	0.079							
Arts/Crafts Made in the Last Year (reference: Not at all this year)												
At least once this year				-0.081	0.100							
At least once a month				-0.213	0.095	*						
At least once a week				-0.031	0.066							
Ability to Speak an Aboriginal Language (reference: Does not speak an Aboriginal language)												
Speaks only a few words/speaks with effort												
Speaks relatively/very well												
Total Household Income (reference: Less than \$15,000)												
\$15,000 to \$29,999	0.016	0.108		0.013	0.108		0.014	0.107		0.011	0.109	
\$30,000 to \$44,999	0.244	0.096	*	0.241	0.095	**	0.249	0.095	**	0.248	0.096	**
\$45,000 to \$59,999	0.330	0.111	**	0.322	0.110	**	0.331	0.113	**	0.321	0.112	**
\$60,000 and over	0.328	0.080	***	0.325	0.079	***	0.321	0.080	***	0.327	0.080	***
Highest Level of Education Attained (reference: Less than high school)												
High school or equivalent	0.209	0.079	**	0.210	0.079	**	0.213	0.078	**	0.217	0.079	**
Some postsecondary or higher	0.258	0.055	***	0.267	0.055	***	0.267	0.054	***	0.261	0.055	***
Employment Status (reference: Unemployed)												
Employed	0.357	0.082	***	0.350	0.081	***	0.344	0.081	***	0.331	0.081	***
Not in labour force	0.018	0.088		0.018	0.088		0.007	0.089		0.008	0.090	
Residential School Attendance (reference: Neither respondent nor any family members attended)												
Respondent and/or family member(s) attended	-0.140	0.059	*	-0.125	0.059	*	-0.130	0.058	*	-0.126	0.064	*
Region of Residence (reference: Ontario)												
Atlantic	0.106	0.109		0.127	0.110		0.103	0.107		0.107	0.110	
Québec	0.153	0.084		0.164	0.085	*	0.155	0.082		0.163	0.085	
Prairies	-0.027	0.067		-0.033	0.067		-0.036	0.064		-0.029	0.067	
British Columbia	-0.059	0.072		-0.061	0.071		-0.063	0.071		-0.059	0.072	
Territories	0.021	0.097		0.035	0.098		0.020	0.095		0.030	0.099	
Sex (reference: Male)												
Female	-0.175	0.042	***	-0.175	0.041	***	-0.170	0.041	***	-0.178	0.041	***
Indigenous Identification Group (reference: First Nations)												
Métis	0.021	0.056		0.025	0.057		0.026	0.057		0.014	0.058	
Inuit	0.055	0.158		0.037	0.157		0.043	0.151		0.046	0.156	
Multiple Indigenous identities	-0.332	0.296		-0.341	0.297		-0.327	0.304		-0.386	0.308	
Constant	3.248	0.128	***	3.268	0.127	***	3.284	0.124	***	3.278	0.126	***

* P ≤ 0.05 | ** P ≤ 0.01 | *** P ≤ 0.001
 Source: APS 2012, Statistics Canada
 Sample size: 6,750 - 6,820
 Population size: 343,370 - 343,390
 The sample size and population size varies across models. The sample is unbalanced.

APPENDIX E Measures of Indigenous Cultural Engagement (2010 UAPS)

Cultural Engagement		
Variable	Freq.	Percent
<i>Close Friends in the City Who Are Aboriginal</i>		
None	115	4%
A few	497	19%
Some	675	26%
Many	1,317	51%
<i>Frequency of Use of Aboriginal Services/Organizations in the City</i>		
Never	493	19%
Rarely	637	25%
Occasionally	728	28%
Often	718	28%
<i>Participation in Aboriginal Political Group(s)</i>		
No	2082	81%
Yes	491	19%
<i>Frequency of Voting in Elections for Aboriginal Political Organizations</i>		
Never	1137	44%
Rarely	443	17%
Occasionally	420	16%
Often	571	22%
<i>Importance of Aboriginal Spirituality</i>		
Not at all important	239	9%
Not very important	282	11%
Somewhat important	803	31%
Very important	1,253	49%
<i>Availability of Aboriginal Cultural Activities</i>		
None	306	12%
A few	466	19%
Some	873	35%
A lot	860	34%
<i>Frequency of Participation in Aboriginal Cultural Activities</i>		
Never	178	8%
Rarely	473	22%
Occasionally	877	40%
Often	657	30%
<i>Ease of Access to Aboriginal Healing Practices</i>		
Very difficult	308	13%
Somewhat difficult	555	23%
Somewhat easy	773	32%
Very easy	763	32%

Source: UAPS 2010, The Environics Institute