This study was conducted for Canada Mortgage and Housing Corporation (CMHC) under Part IX of the *National Housing Act.* The analysis, interpretations and recommendations are those of the consultant and do not necessarily reflect the views of CMHC.

La présente étude a été réalisée pour la Société canadienne d'hypothèques et de logement (SCHL) en vertu de la partie IX de la *Loi nationale sur l'habitatio*n. Les analyses, interprétations et recommandations présentées sont celles du consultant et ne reflètent pas nécessairement le point de vue de la SCHL.

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20201203-002

Literature Review for the Congress of Aboriginal Peoples

Off-Reserve Indigenous Housing Needs and Challenges in Canada

Date: June 29, 2020

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Cover Letter

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June 29, 2020

Nazih Nasrallah:

Re: Off-Reserve Indigenous Housing Needs and Challenges in Canada Literature Review

Big River Analytics Ltd. is pleased to submit this literature review pertaining to off-reserve Indigenous housing needs and challenges in Canada. As per our research proposal submitted in February 2020, our objective was to identify the key mechanisms that drive our housing-related outcomes of interest. We trust that this objective has been met, and now look forward to our second research phase. Informed by the literature, this phase will take our research questions to the Census of the Population, the Aboriginal Peoples' Survey, and potentially other novel data sources to develop a deeper understanding of the housing conditions and needs of the Congress of Aboriginal Peoples' constituency.

This literature review was co-developed with the Congress of Aboriginal Peoples (CAP), and funded by the Canada Mortgage and Housing Corporation (CMHC).

Should you have any questions regarding our submission, I can be reached at hannes@bigriveranalytics.com.

Yours truly,

Hannes Edinger

Table of Contents

1.0 Executive Summary

The last five years have witnessed growth in research, policy and programs designed to improve housing and related socioeconomic outcomes for Indigenous people across Canada. These efforts have numerous implications for off-reserve Indigenous people, Indigenous organizations, municipalities, provinces, and federal partners.

Collectively, the literature indicates the interactions between housing and education, health, and labour force participation are generally well understood. Improvements in housing suitability, crowding, adequacy, affordability, and tenure can have either direct or indirect positive impacts on academic achievement, physical and mental health, and employment outcomes.

Researchers caution, however, against definitive conclusions that improvements in housing adequacy, for example, will directly cause an increase in the employment rate. Instead, they focus on demonstrating correlation. They seek to understand the scope, degree, magnitude, and direct or indirect effects of housing on employment, for example, and identifying what other factors, like poverty, may influence this interaction.

The literature also shows that more study is warranted to identify how these factors interact for off-reserve Indigenous people. Canada's historic, political, social, and economic contexts, like healing from the intergenerational impacts of colonialism, may affect how housing interacts with outcomes in education, health, and labour force participation. There may be further interactions unique to off-reserve cultural connection through Indigenous languages.

The need for more study presents an opportunity for further research in the off-reserve Indigenous housing space. Some research avenues include exploring how housing tenure type, crowding or adequacy may be affected by the social support available to off-reserve Indigenous people, or exploring the impact of urban neighbourhood education level on Indigenous languages outcomes. Researchers note that a richer understanding of housing interactions unique to an Indigenous context may be best explored by tracking changes over time and employing sophisticated data analysis methods. By the same token, they also note the need for understanding these types of interactions at a foundational level first, considering data at one point in time. Simply developing a better understanding of these types of interactions, in itself, has the potential to contribute to this research space. Further research could be supported by using existing Statistics Canada data, like the 2017 Aboriginal Peoples Survey and the 2016 Census of Population.

Supporting all this work is a growing community focused on Indigenous housing research and advocacy, like the Congress of Aboriginal Peoples, and Indigenous-determined housing services providers, oftentimes working in partnership with academic, municipal, provincial, and federal partners.

2.0 Introduction

2.1 Background

The Congress of Aboriginal Peoples (CAP) is the national voice of off-reserve status and non-status Indians, Métis, and Southern Inuit Aboriginal Peoples. CAP, which represents the interests of its provincial and territorial affiliate organizations, is one of the five National Indigenous (representative) Organizations recognized by the Government of Canada.

CAP has been a long-standing advocate for the provision of safe, affordable, and accessible housing for Indigenous people living off reserve, and has undertaken or participated in a range of engagements, projects, federal task forces, working groups, and symposiums that have put forward policy and program recommendations to that effect. For example, in September 2016 CAP and the Canada Mortgage and Housing Corporation (CMHC) held a National Housing Symposium that brought together CAP members and representatives from across the country for a daylong engagement process to inform the Government of Canada's National Housing Strategy. Some of the major themes brought forward regarding housing needs for Indigenous Peoples included:

1. The need for a separate stand-alone Indigenous housing strategy, with a separate vision statement;
2. The distinction between on-reserve Indigenous housing and off-reserve Indigenous housing, and the need to conduct consultation on each separately;
3. The importance of Indigenous administration of any Indigenous housing programs; and
4. The requirement of meaningful consultation with Indigenous people to determine priorities in any housing programs or strategies.

Additionally, the nuances of affordability, suitability, accessibility to, and adequacy within the off-reserve Indigenous housing context were brought forward by CAP members and representatives at that time. Discussion around what a well-balanced, holistic, and suitable housing continuum approach would look like was also central to this gathering.

CAP is supportive of the National Aboriginal Housing Association's call for a national off-reserve rights-based housing strategy (2009). Overall, CAP is supportive of calls for a National Off-Reserve Housing Strategy that would address, among other issues, jurisdictional challenges between the federal and provincial governments, insufficient housing stock, and the development of a comprehensive approach to achieving non-shelter outcomes related to poverty, education, health, employment, and household stability. CAP has consistently stressed that off-reserve Indigenous people lack equitable access to safe, affordable housing, thereby impacting all aspects of their lives. In particular and as a result, CAP has consistently advocated for housing solutions that are culturally sensitive and holistic.

CAP has also consistently noted that modern and historical colonialism are the root causes of Indigenous housing and homelessness challenges, with modern-day racism and discrimination continuing to impact the lives of its constituents. The impact of modern and historical colonialism is also apparent in the socio-economic disparities that exist between Indigenous people living off reserve and the non-Indigenous population. In its 2019 Research Report titled "Urban Indigenous People: Not Just Passing Through," CAP speaks in particular to the racism and discrimination faced by Indigenous people who live off reserve and in urban centres, including conscious exclusion, erasure, and neglect on the part of Canadian policy-makers.

2.2 Literature Review Objectives

In September 2018, a resolution was passed at CAP's Annual General Assembly (AGA Resolution #6 2018) titled "Off-reserve housing," calling for data collection and analysis pertaining to the off-reserve housing needs of Indigenous people at the provincial and territorial level (termed "unique housing dilemma or plight"), as well as continued advocacy with the federal government. This literature review is one outcome related to this resolution.

Additionally, CAP's Political Accord with Canada, signed in December 2018 (Political Accord 2018), notes the joint objective of "clos[ing] the socio-economic gap between Indigenous peoples and non-Indigenous Canadians," and the joint policy priority of "research… to help determine needs… and gaps... in such areas as housing, education, health, language and culture." This literature review contributes research to inform this joint objective and policy priority.

The purpose of this literature and document review is threefold. First and foremost, the objective is to identify the relationships, correlations, and possible causations between housing and four socio-economic outcomes. A number of socio-economic outcomes and related housing correlations affect the daily lives of CAP's constituency, each of high priority and warranting further study in their own right. Recognizing there are many more than four priority areas that have an impact on the daily lives of CAP's constituency, this literature review focuses on how housing interacts with the joint policy priority areas of education, health, and Indigenous languages (Political Accord 2018), as well as labour force participation. Focusing the literature review in this way helps maintain a manageable scope, and supports focused consideration of potential data availability and any methodological constraints related to future study in these areas. The correlations between housing and these four socio-economic outcomes is explored both in the context of the general population, as well as for off-reserve Indigenous households and individuals in Canada and internationally.

Second, the objective is to identify and consolidate potentially applicable published recommendations from a range of actors in the off-reserve Indigenous housing, short-term shelter, and social housing spheres. Developing an initial, non-exhaustive list of the range of stakeholders operating in this space and related recommendations may assist with the ongoing identification, building, and maintenance of research partnerships wherein CAP might leverage the findings from this literature review and future potential research to support continued housing advocacy and policy development efforts.

Finally, the intent of this literature review is to inform data analysis research that can support ongoing joint efforts in line with resolutions passed at CAP AGAs, Political Accord, and continued advocacy, policy, and partnership development in the housing space. Specifically, this literature review allows for the identification of existing and emerging methodologies, data sources, variables, and other considerations that can subsequently serve as a blueprint for a future data analysis project informed by the literature.

Eight research questions were initially proposed as guides in the achievement of these objectives. These questions are listed in full in Appendix A1. The overarching aim is to uncover opportunities and options for specific further housing research that may be applicable to the off-reserve Indigenous population in Canada. Of these eight questions, one has not ultimately been addressed by this report, as it would warrant its own separate study. More details are available in Appendix A1.

To set the stage, Section 3.0 provides targeted definitions and terminology. Section 4.0 follows, and outlines the process used to conduct this literature and document review, including considering stakeholder recommendations. Section 5.0 summarizes recent data available about the off-reserve Indigenous housing situation.

Section 6.0 focuses on understanding correlations between housing and each of the four priority areas (education, health, labour force participation, and Indigenous languages) in the following way:

1. **Measuring the Priority Area**

   - Methods for measuring the priority area as described in the literature are presented, as well as any measures uncovered that are unique to the Indigenous context. This may provide guideposts of the types of indicators, variables, or other measures that might be applicable for further research.
   - Data sources used to understand correlations between housing and the priority area are outlined, both in the general context and, where literature exists, in the Indigenous context. Identifying the range and types of data used in existing research may help inform data considerations for future potential research.
   - Summary observations are provided on the range of methodologies applied throughout the literature reviewed, both in a general context, and, where possible, in an off-reserve Indigenous context.

2. **General Correlations**

   - Findings uncovered across literature in the general context are considered, with a particular focus on what contributes to correlations between housing and each priority area, the strength of the correlations (if possible), and any confounding factors that should also be considered. Understanding correlations from the general literature may uncover mechanisms that might be testable through further

research unique to an Indigenous context, especially if research in this space is currently limited.

3. **Correlations in an Indigenous Context**

   - Where the literature exists, these correlations are considered unique to the off-reserve Indigenous context, with summary observations around broad avenues for potential future research.

Section 7.0 then presents a summary of stakeholder recommendations gathered throughout the document review process, in addition to culturally appropriate and responsive housing approaches uncovered while conducting the literature review. This section is intended to situate the academic literature within some of the realities of the Indigenous housing sphere in Canada.

Informed by these findings, Section 8.0 consolidates a range of possible housing research options, with an eye to feasibility and relevance to CAP's off-reserve context, as well as consider potential data sources and methodologies that might be applicable for future housing research.

The appendices conclude this report with the list of research questions that guided this report, the search terms used to conduct the literature review, and a listing of 2017 Aboriginal Peoples Survey Sections that may be potentially relevant for future research. The last appendix is a select annotated bibliography of those studies unique to the Indigenous context that informed this literature review.

2.3 Objectives Warranting Separate Study

Employment and Social Development Canada has found that Indigenous Peoples "are 10 times more likely to access homeless emergency shelters than non-Indigenous people, representing approximately 30% of all shelter users in 2014, while only representing approximately 5% of the Canadian population" (Employment and Social Development Canada 2018).

Homelessness as experienced by urban Indigenous people is uniquely affected by colonial policies and laws put in place by the Crown. Homelessness research led by Jesse Thistle with Indigenous community members between 2016 and 2017 found that:

> Being disconnected from the holistic web of "All My Relations" (an Indigenous worldview common in First Nations, Métis and Inuit societies that sees all things in existence as interconnected) by Canadian colonization was cited again and again as the root cause of homelessness in Canada (2017, 13).

Thistle's team, working with Indigenous community members, confirmed the broader-ranging individual, family, community, and intergenerational impacts of homelessness on Indigenous culture, language, and traditions, among other dimensions. The 12 dimensions of Indigenous Homelessness as articulated by Indigenous Peoples across Canada (Thistle 2017) include:

1. Historic Displacement Homelessness

2. Contemporary Geographic Separation Homelessness
3. Spiritual Disconnection Homelessness
4. Mental Disruption and Imbalance Homelessness
5. Cultural Disintegration and Loss Homelessness
6. Overcrowding Homelessness
7. Relocation and Mobility Homelessness
8. Going Home Homelessness
9. Nowhere to Go Homelessness
10. Escaping or Evading Harm Homelessness
11. Emergency Crisis Homelessness
12. Climate Refugee Homelessness

Bearing all of this in mind, it is worth noting that this present literature review focused on housing is already decidedly ambitious. It seeks to explore correlations between housing and four priority areas in an off-reserve Indigenous context. Most, if not all, academic literature reviewed here tended to focus uniquely on the correlation between housing and only one priority area. Furthermore, academic research studies reviewed or considered here tended to focus on either housing or homelessness, given the degree of methodological rigour required to study either aspect comprehensively.

We recognize it is crucial and necessary to consider conducting further research into the socioeconomic impacts of homelessness as experienced by off-reserve Indigenous people. In order to fully understand the scale, scope, and complexity of how homelessness interacts with socioeconomic outcomes in an off-reserve Indigenous context, additional, separate research beyond this present literature review would be warranted, especially as CAP's policy approaches continue to be refined in response to evolving constituency priorities.

3.0 Definitions and Terminology

The term **Indigenous** is used primarily throughout this report and refers widely to the original peoples of North America and their descendants, including First Nations, Métis, and Inuit Peoples. Where **Aboriginal** is used, it refers specifically to the constituency represented by CAP and reflects the term as used in the Constitution of Canada. It will be used throughout this report in these capacities, as well as to reflect terminology used in federal documents and data products, like the Canadian Census of Population (Census).

Where **off-reserve** is used, it refers to a person's usual place of residence being in a census subdivision (CSD) that is defined as 'off reserve' (Statistics Canada, 2017c). While often conflated with urbanism, off-reserve residence includes rural and remote areas.

The definition of **housing** that informs CAP's approach is the basic human need for safe, accessible, affordable, permanent housing provided in a healthy environment free of racism and discrimination. Housing is also a fundamental human right as per Article 25 of the United Nations Universal Declaration of Human Rights (United Nations General Assembly 1948).

There are many ways one can make sense of *why* housing is considered a fundamental human right, and a basic human need. From an economic perspective, stable housing (or shelter) is a key determinant to an individual's ability to "strengthen the middle class" and "fuel the economy" (Canada Mortgage and Housing Corporation 2017, 4). Additionally, one can view housing as foundational to an individual's sense of home and, in turn, their sense of belonging (Walsh 2004). It is worth noting that "housing" and "home" are not synonymous. Where housing is a structure (and "household" is a unit of measurement), "home is a relationship that is created and evolved over time" (Dovey 1985, 57). In euro-western worldviews, the former tends to be prioritized (if not in language, then in action), and housing is typically measured according to indicators like ownership, crowding, affordability, and others. These measures are all valid and useful, and simultaneously, it is important to create space to consider the existence of alternative ways to measure the successes or opportunities to improve housing systems and programs, as well as if current models or indicators like homeownership "reflect colonial frameworks" (NWAC 2019, 24). This becomes particularly important when considering housing within an Indigenous context.

With that being said, we note that the set of indicators considered throughout this literature review stem from a euro-western theoretical perspective on housing, as this is the perspective that informs Canada's statistics, and most of the housing literature. In order to acknowledge and create space for some alternatives, however, we also consider Indigenous housing conceptions within the context of Indigenous language in section 6.4.

A **Household** is "a person or group of persons who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada or abroad" (Statistics Canada, 2019).

Throughout this report, **housing conditions** are measured according to the following set of indicators:

1. Suitability
2. Crowding
3. Adequacy
4. Affordability
5. Ownership

Suitability is based on whether a dwelling has enough bedrooms given the household's size and composition (CMHC 2019b). The term is from the National Occupancy Standard (NOS) developed by CMHC, which determines suitability based on the number of bedrooms and household composition.

An alternative standard of suitability is **crowding**, which is a measure of persons per room. Crowding is a simpler calculation than NOS suitability in that it only compares the number of rooms in the dwelling (bedrooms and otherwise) with the number of people in the household.

Crowded housing is categorized into dwellings that have a one- bedroom shortfall, a two- bedroom shortfall or a shortfall of three or more bedrooms. Therefore a house with a one- bedroom shortfall would require a single extra bedroom in order to adequately house the number of people who live there (Statistics Canada 2017).

The concept of **adequacy** has to do with a dwelling's livability. If a dwelling does not require major repairs, it is considered adequate (CMHC 2019b). An adequate dwelling may be in need of regular maintenance or minor repairs, which may include cosmetic repairs or desired renovations.

Affordability considers the income required by a household to cover shelter costs. The CMHC notes that "[a] conventional measure of housing affordability is the shelter-cost-to-income ratio [STIR], which most commonly sets the affordability threshold at 30% of before-tax household income" (CMHC 2019a).

Ownership pertains to the type of tenure held by an individual. Tenure refers to whether a principal residence is owned or rented (CMHC n.d.).

4.0 Methodology

4.1 Literature Review Approach

While the literature review was not conducted as a pure Health or Medical review, it drew broadly on some elements from those disciplines, including the PRISMA-P (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols) 2015 checklist and frameworks like PICO (Population, Intervention, Comparators, and Outcome). These frameworks helped inform the development of selection criteria (i.e., inclusion/exclusion criteria) that narrowed and refined the scope of review. The use of these commonly-accepted frameworks is intended to contribute to the degree of replicability of this literature review.

Given CAP's mandate, the population of interest was Aboriginal people living off-reserve, including status and non-status Indians and Métis, as well as Southern Inuit. Geographies of interest ranged from the municipal, to the national, to the international level.

The search strategy included a mix of academic and grey literature. Academic literature was selected according to a set of criteria that included date of publication, type of research, themes explored, study design, language of publication, and quality assessment. A paper or a study was deemed of quality if it was peer reviewed and methodologically sound. Research was prioritized if it pertained to correlations between housing and the four priority areas: education, health, labour force participation, and Indigenous languages.

Grey literature was included if it was:

- Produced in partnership between an academic researcher or institution and a service provider, community organization, or similar;
- Produced by an academic researcher and published in publicly-available media sources or organizational websites;
- Produced by a service provider, organization, or similar working in the Indigenous housing sphere;
- Reported in the media focused on themes, findings, and outcomes in the Indigenous housing sphere; or
- A government report and publication, both national and international.

A list of key search terms is included in Appendix A2.

Table 4.1 illustrates the number of academic studies or research syntheses reviewed, by priority area, both in a general context and in an off-reserve Indigenous context.

Table 4.1 - Number of Studies or Syntheses Reviewed by Priority Area

Priority Area	General Context	Indigenous Context
Education	15	3
Health	11	1
Labour Force Participation	12	2
Indigenous Languages	N/A	1

Additional searches were conducted related to the experience of homelessness borne by Indigenous people. We recognize homelessness as a part of the housing spectrum, and are keenly aware of the overrepresentation of Indigenous people in Canada's homeless population (Employment and Social Development Canada 2018). As important as this dimension is, off-reserve Indigenous homelessness was excluded from our analysis in order to maintain an achievable scope. That said, this presents an opportunity for future targeted research.

Academic literature was accessed through a range of electronic databases housing academic journals, like JSTOR, as well as Google Scholar and ResearchGate. Grey literature was accessed on government websites, academic, and quasi-academic organizational websites, and Indigenous housing stakeholder organizational and community organizations/service providers, or similar websites.

We note that this review was ambitious, and sought to meet multiple objectives. Simply examining correlations and teeing up future data-driven research could be an entire undertaking on its own. This review drives towards additional outcomes in an effort to increase the usability and potential applicability of the findings for Indigenous organizations, like CAP, operating in the off-reserve housing advocacy and service delivery space.

4.2 Document Review Approach

The purpose of the document review was to identify and consolidate potentially applicable published recommendations from a range of actors in the off-reserve Indigenous housing, short-term shelter, and social housing spheres. Documents were prioritized if they were government reports, research produced by academics in partnership with service providers/community organizations, or if they included recommendations developed by established organizations, bodies, tables, service delivery providers, or similar. Given these criteria, sources were by and large credible, nonetheless, every document's timing, relevance, authority, authenticity, accuracy, purpose, and representativeness were also considered. Prioritized recommendations included those developed within the last four years by Indigenous people, Indigenous organizations providing or coordinating housing services, or organizations working closely with or supporting the work of Indigenous housing service providers.

5.0 Current Indigenous Off-Reserve Housing Circumstances

Housing is traditionally viewed as part of a continuum, with private homeownership often held as the ideal. In an Indigenous off-reserve context, however, a more holistic approach may be more reflective of Indigenous lived experiences and realities. For example, with input from Indigenous stakeholders, the City of Kelowna developed "The Wheelhouse" in 2017 to guide their housing strategy (see Figure 5.1).

The Wheelhouse promotes equity and inclusion, recognizing that the housing stock needs to reflect diverse needs, both socioeconomic and demographic, and that people may move around the Wheelhouse throughout their lives (City of Kelowna 2019). As a broad conceptual frame, this holistic approach supports an exploration of correlations between housing and socioeconomic indicators, like education, health, and labour force participation, in an Indigenous context. This holistic framework underpins the approach to housing throughout this report.

Figure 5.1: The Wheelhouse

EMERGENCY SHELTER
Non-profit providers offer temporary shelter, food and other supportive services.

SHORT-TERM SUPPORTIVE HOUSING
Non-profit housing providers offer stable housing as a step between shelters and long-term housing. Stays are typically 2-3 years, with supportive services aligned with need.

LONG-TERM SUPPORTIVE HOUSING
Housing providers offer long-term housing with ongoing supports aligned with need. The level of support varies in this category from supportive (low support), to assisted living (minor support) to residential care (full support).

OWNERSHIP HOUSING
Home ownership can be fee simple, strata ownership or shared equity (ie. mobile home park, cooperatives) and includes multi-unit and single detached housing.

RENTAL HOUSING
Primary market: 5+ purpose built units constructed for the purpose of long-term rental tenure, typically in apartments or townhomes
Secondary market: private housing also contributes to the rental market and can include many forms of housing such as apartments, townhomes, secondary suites, carriage homes and single-family dwellings.

SUBSIDIZED RENTAL HOUSING
Operated by non-profit housing providers, BC Housing and cooperatives. These organizations provide subsidized rents through a) monthly government subsidies or b) one time government capital grants for low to moderate income households.

= supportive services   = financial support

Source: City of Kelowna (2019)

Off-reserve Indigenous households in Canada consistently experience worse housing conditions than their non-Indigenous counterparts. Again, we stress the fact that these disparities are underpinned by historical and modern colonialism that creates and upholds systemic and institutional barriers for Indigenous people, including Indigenous people living off reserve. Some of the barriers faced by Indigenous Peoples in accessing housing include "racial profiling and discrimination by landlords, employers, police, and social service agencies" (Brandon and Peters 2014, 9). Although the most recent data indicates that housing conditions for off-reserve Indigenous households improved generally, disparities still persist across all housing indicators.

In 2010, 10.5% of off-reserve Indigenous households lived in dwellings that were considered not suitable, compared to 5.7% of non-Indigenous households (Figure 5.2). In 2015, disparities persisted, with 8.7% of off-reserve Indigenous households living in unsuitable conditions compared to 4.7% of non-Indigenous households.

Figure 5.2 — Housing Suitability, Off-Reserve Indigenous and Non-Indigenous Households in Canada, 2010–2015
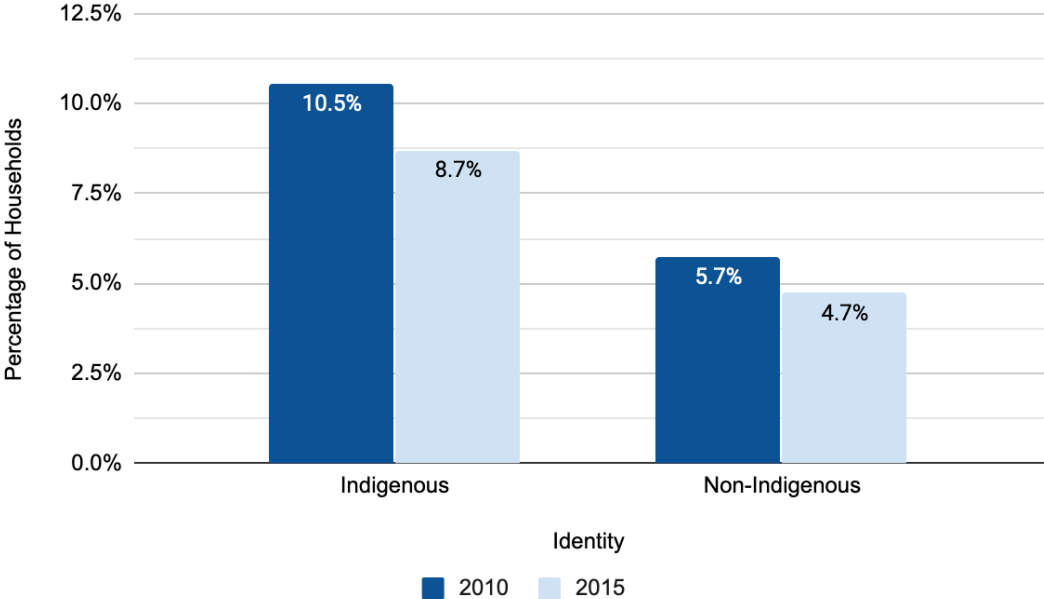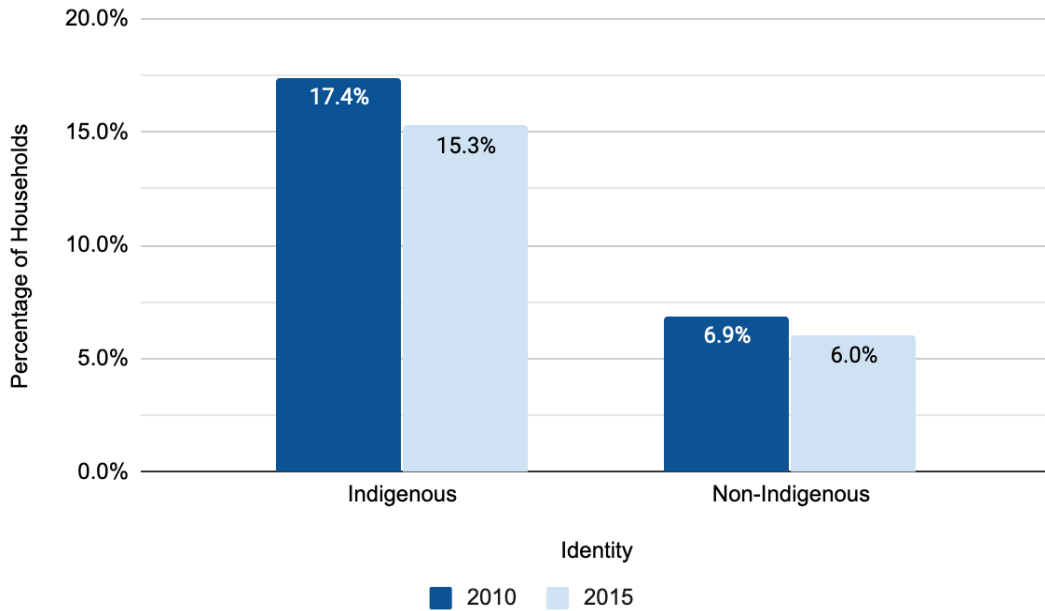

Source: Statistics Canada (2013a; 2013b; 2018a)

In 2010, 17.4% of off-reserve Indigenous households lived in dwellings in need of major repairs compared to 6.9% of non-Indigenous households (Figure 5.3). In 2015, disparities continued, with 15.3% of off-reserve Indigenous households living in dwellings in need of major repairs, compared to 6.0% of non-Indigenous households.
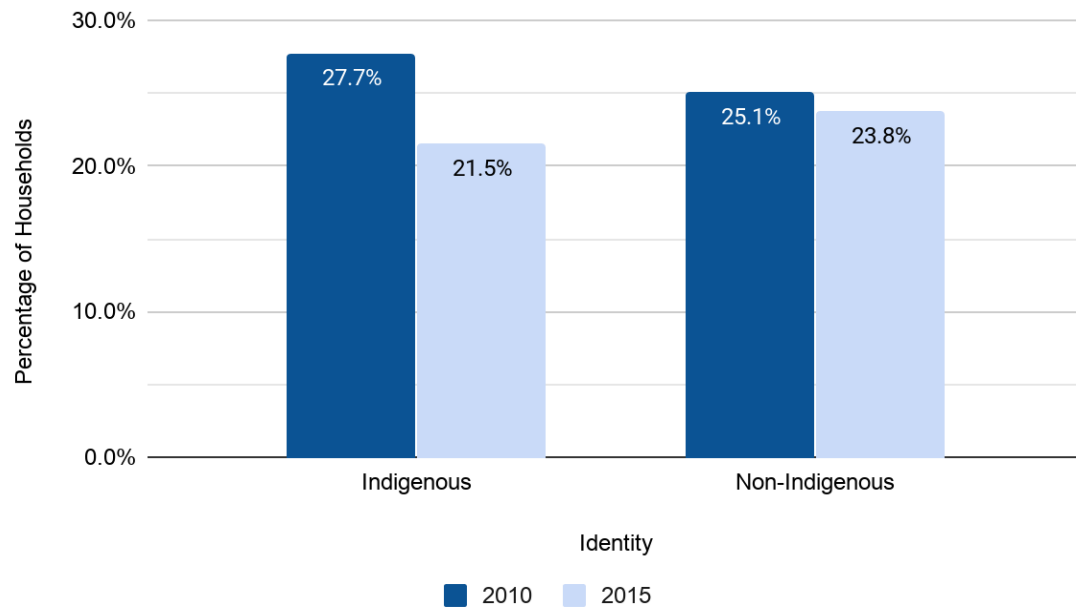
In 2010, 27.7% of off-reserve Indigenous households spent more than 30% of their before-tax income on shelter costs, compared to 25.1% of non-Indigenous households (Figure 5.4). By 2015, these rates fell to 21.5% for off-reserve Indigenous households and 23.8% for non-Indigenous households. This suggests that housing affordability improved considerably for off-reserve Indigenous households between 2010 and 2015.

Figure 5.3 — Housing Adequacy, Off-Reserve Indigenous and Non-Indigenous Households in Canada, 2010–2015

Source: Statistics Canada (2013a; 2013b; 2018a)

Figure 5.4 — STIR, Off-Reserve Indigenous and Non-Indigenous Households in Canada, 2010–2015
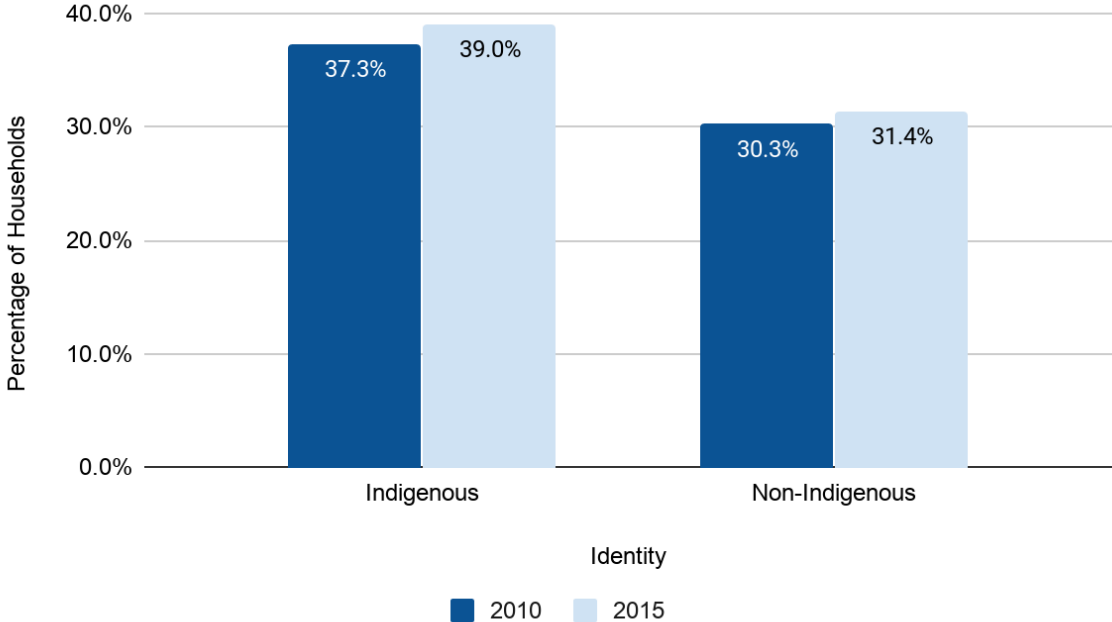

Source: Statistics Canada (2013a; 2013b; 2018a)

Considering tenure, in 2015, 39.0% of off-reserve Indigenous households lived in a rented dwelling, compared to 31.4% of non-Indigenous households, up from 37.3% and 30.3%, respectively, in 2010 (Figure 5.5). With regards to ownership, the percentage of off-reserve

Indigenous households that owned a dwelling stayed stable at just over 53% in both 2010 and 2015. In comparison, 68.6% of non-Indigenous households owned a dwelling in 2015, down from 69.7% in 2010.[1]

**Figure 5.5 — Rented, Off-Reserve Indigenous and Non-Indigenous Households in Canada, 2010–2015**

Source: Statistics Canada (2013a; 2013b; 2018a)

Finally, we consider access to subsidized housing in Figure 5.6. In 2015, 22.8% of off-reserve Indigenous tenant households lived in subsidized housing, compared to 12.3% of non-Indigenous tenant households.

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[1] Statistics Canada (2013a; 2013b; 2018a).

Figure 5.6 — Tenant Households in Subsidized Housing, Off-Reserve Indigenous and Non-Indigenous Households in Canada, 2010–2015
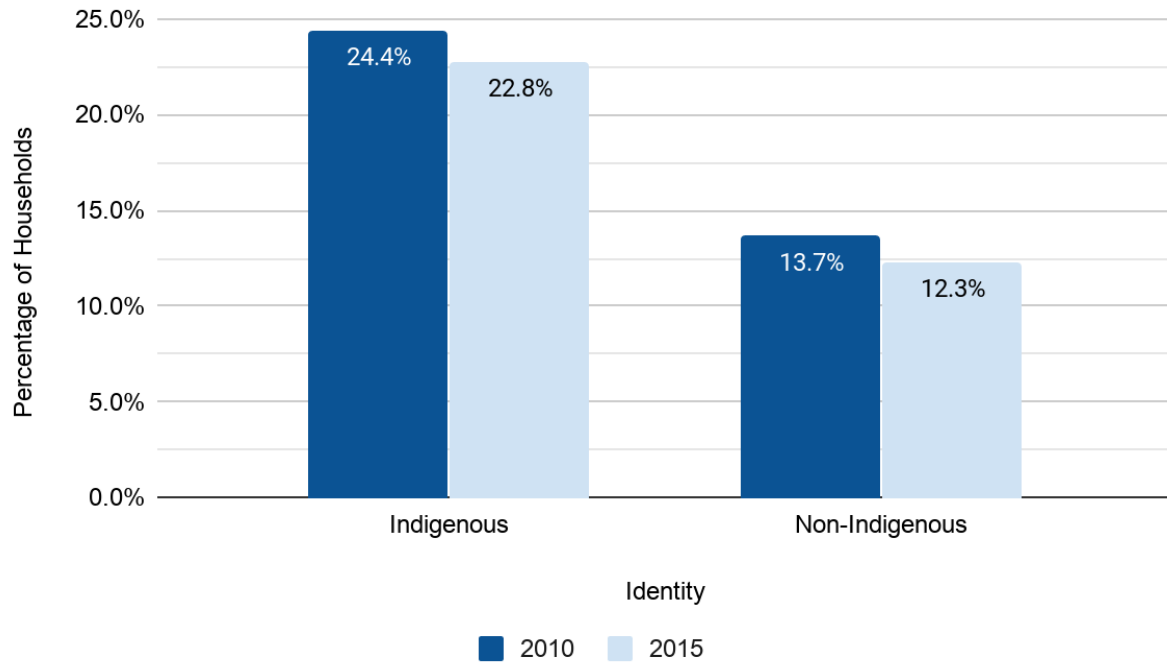
Source: Statistics Canada (2013a; 2013b; 2018a)

6.0 Priority Areas

We consider four areas in their intersection with housing: education, health, labour force participation, and Indigenous languages. For the purposes of this report, these areas are referred to as "priority" areas. The priority areas outlined in this report were selected according to a number of factors:

First, as described in Section 2.2, education, health, and Indigenous languages are all listed as joint policy priority areas in CAP's Political Accord with Canada (Political Accord 2018), with labour force participation aligning under the Political Accord Objectives umbrella of working to close socio-economic gaps between Indigenous peoples and non-Indigenous Canadians.

Second, CAP's understanding of these areas as priorities is based on their importance within the current socio-economic system in Canada. In effect, colonial policies have and continue to have intergenerational impacts on Indigenous people's health and mental health, on participation in education systems that have a uniquely traumatic legacy, and on subsequent labour force participation. These three pillars are widely understood in their relation to poverty, which influences housing conditions, and fuels a violent child welfare system that serves only to disconnect youth from their culture and language, pushing them towards what has been termed "spiritual homelessness" (Young 1998; Christensen 2016). The priority areas we consider are useful because they are sufficiently broad to encapsulate what would otherwise be separate themes.

And finally, more practically, focusing the literature review on these four priority areas helps maintain a manageable scope. It was expected that education, labour force participation, and health would be areas that have been the subject of baseline research that would allow this project to build upon. The risk in this approach was to ignore areas that may be more specific or culturally relevant to CAP's constituents. This understanding further confirmed the importance of considering correlations between housing and Indigenous languages, an area of study that is emerging in comparison to the rest, and the importance of presenting stakeholder recommendations (included in Section 7.0). Notwithstanding, we acknowledge that a number of alternative, equally important areas could have been selected, including access to the justice system, for example, and these would have resulted in pertinent research findings. These exist as opportunities for further research, and are presented in Section 8.5.

The correlations that exist between each priority area and housing, both in general and in an Indigenous context, are presented in Sections 6.1 to 6.4. Where relevant, we indicate whether a study was specific to the off-reserve Indigenous context, or whether that distinction was not specified or applicable. Generally, our need to rely on studies that focus on the Indigenous context more broadly is a reflection of limited research pertaining to this report's guiding questions.

6.1 Education

We first consider housing in its relationship to education. In general, there is consensus in the literature that housing is a determinant of educational attainment, which in turn is a strong

determinant of an individual's health and well-being, as well as a strong determinant for improved socio-economic outcomes across their lifespan. On the other hand, socio-economic marginalization is considered to be a leading factor associated with poorer educational attainment, and poverty is associated with a number of factors that influence children's physical and mental well-being and ability to learn (NCCIH 2017a). Poverty then, of course, plays a role in the accessibility of stable and suitable housing.

The impacts of housing on education have particular implications for off-reserve status and non-status Indians, Métis, and Southern Inuit Aboriginal Peoples of Canada.

In 2017, 19% of 25-to-64-year-old off-reserve Indigenous people in Canada had less than a high school diploma, compared to 9% of the non-Indigenous population in the same age bracket (Figure 6.1.1). Considering the off-reserve First Nations population separately, in 2011 "NHS results show that 31% of 25-to-64-year-old off-reserve First Nations people did not have a high school diploma, compared with 15% of the non-Aboriginal population in the same age group" (Turner and Thompson 2015).

Figure 6.1.1 — Educational Attainment Less than High School, Off-Reserve Indigenous and Non-Indigenous Adults in Canada, 2011–2017
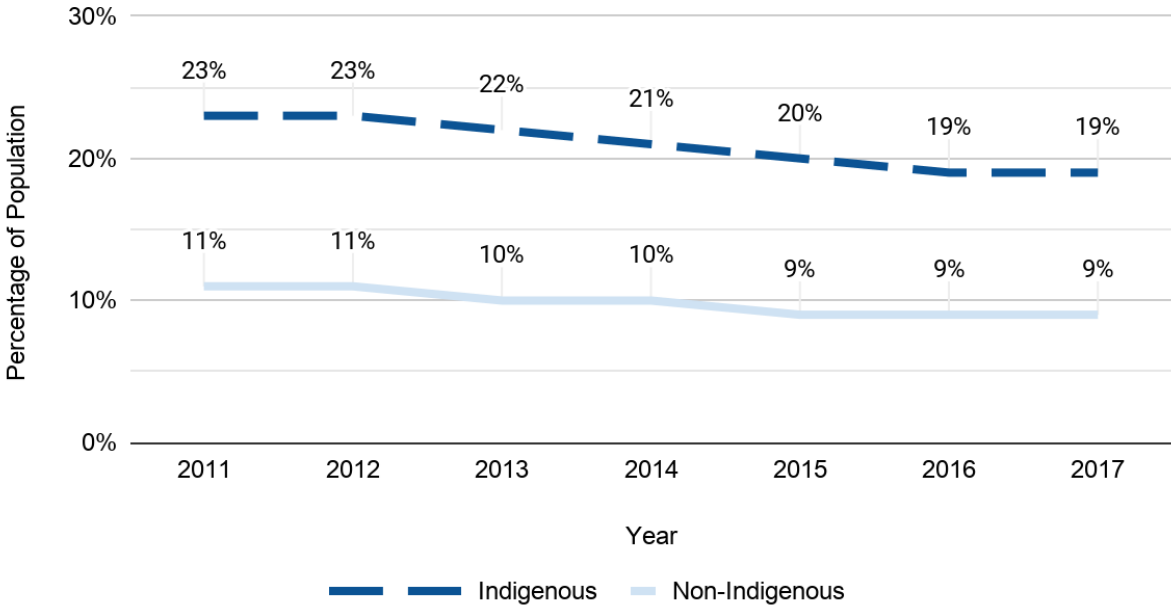
Source: Statistics Canada (2018b)

In 2011, 29% of off-reserve Indigenous people ages 25 to 64 had 'no certificate, diploma or degree', compared to 12% of non-Indigenous people (Statistics Canada 2015). In 2011, almost half (48%) of Indigenous people aged 25 to 64 reported they had a postsecondary qualification. By comparison, about two-thirds (65%) of non-Indigenous people in the same age group had a postsecondary qualification, a difference of 17 percentage points (Statistics Canada 2015). By

2017, this increased to 52% of all Indigenous people over age 15 in Canada achieving some form of post-secondary qualification (Figure 6.1.2), however the gap was still 17 percentage points.

Figure 6.1.2 — Achievement of Post-Secondary Certificate, Diploma, or Degree, Off-Reserve Indigenous and Non-Indigenous Adults in Canada, 2011–2017
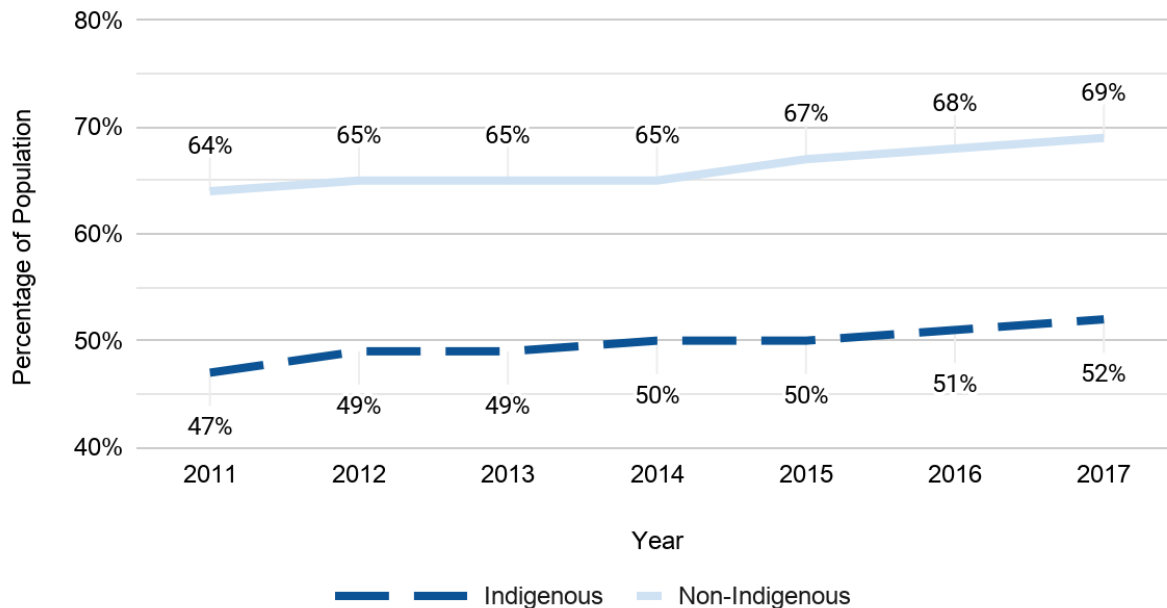
In their 2017 report *Education as a Social Determinant of First Nations, Inuit, and Métis Health*, the National Collaborating Centre for Indigenous Health (NCCIH), formerly the National Collaborating Centre for Aboriginal Health (NCCAH), echoes these findings, highlighting that, while "rates of educational attainment among Indigenous peoples have improved over recent decades (...), a number of educational gaps remain across gender, age, Indigenous groups and geography" (NCCIH 2017a, 8).

To be appropriately understood, these gaps need to be considered within their broader societal and historical contexts:

> A wide range of factors can affect learning for Indigenous peoples across all life stages, from early childhood education, kindergarten to Grade 12 (K-12), and post-secondary education. These factors operate from the individual to broader societal and environmental levels, and are primarily associated with historic and contemporary impacts of colonialism, including socio-economic marginalization, inappropriate education systems, and inequitable funding for education. (NCCIH 2017a, 2)

Despite the gaps in educational attainment between Indigenous and non-Indigenous people in Canada, our review found limited academic literature exploring housing and education specifically

within an Indigenous context in Canada, or an off-reserve Indigenous context. Our review did identify numerous summaries prepared by Indigenous-focused research bodies, like the NCCIH, that consolidate studies on the social determinants of Indigenous health, including housing and education. As instructive as these summaries are, they may draw from academic studies conducted in a non-Indigenous or international context, or from qualitative studies and anecdotal or lived-experience reports. Additionally, this review was unable to identify direct evidence linking housing and Indigenous post-secondary education in the Canadian context. This presents an opportunity for further research.

To investigate the topic in more depth, we first consider the ways in which educational attainment has been measured in section 6.1.1. Research presenting general correlations between housing and education in a non-Indigenous context is then explored in Section 6.1.2. Finally, we explore the literature on housing within an Indigenous context in Section 6.1.3.

6.1.1 Measuring Educational Attainment

Educational attainment is measured differently across the literature. Haurin, Parcel, and Haurin (2002) consider academic achievement as measured by standardized test scores in math and reading. (2015) measure school success according to four outcomes: grade average on last report card, whether the student ever repeated a grade, whether the student was receiving additional help or tutoring (not including help from family members), and whether the student was happy at school. Bougie and Senécal (2010) rely on parental perceptions of how well their child is doing in school (from "very well" to "very poorly"). Kim (2010) looks at high school dropout rates, high school graduation rates, college attendance, and college degree attainment. Green and White (1997) focus on whether a youth is still in school or has graduated from high school. Finally, Lopoo and London (2016) examine whether the individual graduated from high school by age 19 and the individual's maximum level of education achieved by age 25.

In terms of data sources, the studies coming from the United States largely rely on the National Longitudinal Survey of Youth 1979 (NLSY79) (Kim 2010; Haurin, Parcel, and Haurin 2002; Blau, Haskell, and Haurin 2019). In considering dwelling characteristics, Blau, Haskell, and Haurin (2019) merge public records to the NLSY79 to capture a dwelling's size, number of bedrooms, year built, and type (single family, mobile home, multi-family). Green and White (1997) use three data sources for their study: the Panel Study of Income Dynamics (PSID), the Public Use Microsample of the 1980 US Census of Population and Housing (PUMS), and High School and Beyond.

In Canada, Bougie and Senécal (2010) and Turner and Thompson (2015) rely on the 2006 Aboriginal Peoples Survey (APS). Bougie and Senécal further supplement information with data from the Canadian Census, the National Population Health Survey, and the First Nations Regional Longitudinal Health Survey 2002/03.

The studies considered employed a range of methodological approaches. Lien, Wu, and Lin (2008) compared the chance of general high school or general college enrollment for Taiwanese youths of the same age and in the same neighbourhood. They controlled for neighbourhood

factors that don't typically change over time to account for any unobserved differences between families and that might affect high school or college enrollment. These factors included neighbourhood effect, quality of schooling, and parental incomes and preferences. Recognizing there may be more possible unobserved differences between families, they considered interacting factors like the number of siblings and a child's education that might also indirectly affect the chance of a youth's enrollment in high school or college. After controlling for unobserved factors in these two ways, they found evidence of strong correlation between educational outcomes and housing variables like tenure status and house floor space.

In their study examining how homeowning benefits children, Green and White (1997) tested whether children of homeowners stay in school longer than children of renters. To understand this, they looked at the probability of children staying in school in relation to whether their parents owned or rented their home. Recognizing that there may be some unobserved or implicit characteristics of homeowning parents that might help them raise children more likely to stay in school, Green and White also accounted for this potential selection bias. Even after controlling for this potential selection bias, they found that homeownership did, indeed, have a positive effect on a child's likelihood of staying in school.

Haurin, Parcel, and Haurin (2002) also considered the impact of homeownership on child outcomes, employing a different methodology than Green and White (1997). Haurin, Parcel, and Haurin looked at educational outcomes of children over time and in relation to many social, demographic, and economic variables previously found to influence child outcomes. Like Green and White, they also recognize selection bias might be present in the parent's choice to own or rent and to invest in their children. To control for selection bias, Haurin, Parcel, and Haurin consider what impact these types of parental choices have on children's outcomes. In each case, and after controlling for possible selection bias, they find evidence that homeownership does lead to better educational outcomes.

6.1.2 General Correlations

6.1.2.1 General Correlations Summary

The impacts of homeownership and housing characteristics on educational attainment, as described in sections 6.1.2.2 and 6.1.2.3, are extensively studied in the literature. Overall, findings suggest that homeownership, residential stability, and floor space are positively related to educational attainment. That said, a causal relationship has yet to be convincingly established, in part due to the difficulty in controlling for the extensive observed and unobservable variables at play.

In their assessment of the homeownership and education literature, Green highlights the methodological hurdles that every one of their reviewed studies faces:

> All the papers agree on a stylized fact—that using simple econometric models, homeowning, after controls are in place, predicts child outcomes. If all we were

worried about was prediction, we could stop the argument at that point. To say one thing predicts another is, however, different from saying that one thing causes another. If something we observe is highly correlated with something we do not observe, and that observed thing predicts an outcome, we can not say whether it is the observed thing or the unobserved thing that is causing the outcome. All papers attempt to control for unobserved characteristics; results across papers vary. (2013, 283)

This consideration was kept in the forefront as we examined the literature at hand. To the extent possible based on the literature, we looked for clear evidence of causation. In most cases, as Green notes, we found most researchers provided evidence of correlation, with summary statements around any confounding factors or variables they encountered.

Finally, we note that, in addition to homeownership and housing characteristics, the literature widely explores the so-called "neighbourhood effect". Though not expanded upon in this review, the neighbourhood effect, in a nutshell, suggests that higher-socioeconomic-status neighbourhoods may be correlated with higher rates of homeownership, better schools, availability of parks and playgrounds, better air quality, and other variables that may affect school performance (Blau, Haskell, and Haurin 2019; Steele and Kreda 2017). This variable, which is difficult to control for, accounts for many of the literature's limitations in attempting to establish a causal relationship between housing and education.

6.1.2.2 Homeownership

Overall, much of the literature on housing and education considers the effects of homeownership on educational attainment (Boehm and Schlottmann 1999; Green and White 1997; Kim 2010; Whelan 2017; Haurin, Parcel, and Haurin 2002; Aaronson 2000). In general, the literature suggests that homeownership during childhood is positively associated with the increased educational attainment of the child (Boehm and Schlottmann 1999; Blau, Haskell, and Haurin 2019; Kim 2010; Green and White 1997) and with other young adult outcomes such as "employment and normative behaviors (abiding by the law, and delaying pregnancy, for example)" (Blau, Haskell, and Haurin 2019 sec. 1).

The housing and education correlation literature attempts to control for selection bias by controlling for race, gender of the child, family income, the "neighbourhood effect", and other variables that are understood as having significant impacts on children's educational attainment. In other words, the literature is in pursuit of the so-called "pure tenure effect" or "homeowner effect" on education, separate from other observed or unobserved compounding factors, including and in particular that of poverty. Results, however, vary among studies (Ma'rof and Redzuan 2012; Green 2013).

For example, Green and White (1997) found that homeownership during childhood is positively associated with increased educational attainment, but they also found that longer tenure mitigates the effects of renting. This could suggest, among other interpretations, that residential stability and the reduced frequency of moving are associated with educational attainment, rather than or

in addition to homeownership per se (Aaronson 2000).[2] Similarly, Blau, Haskell, and Haurin argued that the literature "is not clear whether homeownership per se is beneficial or whether the higher quality dwelling characteristics associated with homeownership account for the positive association between homeownership and young adult outcomes" (2019 sec. 1).

Ma'rof and Redzuan further mitigate the homeownership effect, by noting that,

> Despite the abundance of evidence in favor of the links between homeownership and child outcomes, estimating the true effect of homeownership is not an easy task due to its endogeneity. Homeownership is often associated with a collection of parental and neighborhood characteristics that are difficult to disentangle. Instead of benefiting from growing up in an owned house itself, children might benefit from the factors often accompanying homeownership. (2012, 834)

The effect of homeownership on children's educational outcomes is reduced or eliminated by a couple of studies that control for a suite of covariates. These include residential mobility (Aaronson 2000), wealth, dwelling type, and vehicle ownership (Barker and Miller 2009). Ma'rof and Redzuan conclude that while there may be correlations between homeownership and educational attainment, more sophisticated data analysis methods would be needed "in order to obtain an unbiased estimate of homeownership effect" (2012, 839).

6.1.2.3 Housing Characteristics

In addition to homeownership, the impacts of housing characteristics on educational attainment are also considered in the literature. Household crowding is the housing characteristic that is most thoroughly examined in its relationship to educational attainment specifically and child well-being more generally (Blau, Haskell, and Haurin 2019; Goux and Maurin 2005; Solari and Mare 2012; Lien, Wu, and Lin 2008; Lopoo and London 2016). Building age is also studied in a few instances (Blau, Haskell, and Haurin 2019; Lien, Wu, and Lin 2008), as is housing floor space (Lien, Wu, and Lin 2008). These studies all attempt to control, to the extent that is possible, for socioeconomic status.

Overall, the studies reviewed conclude that children's educational achievement is negatively related to an increase in housing crowdedness. Solari and Mare (2012) look beyond education to wellbeing, and find that crowding also has impacts on children's behaviour and physical health. On the flip side, Lien, Wu, and Lin (2008) find that an increase in housing floor space is positively related to educational achievement.

The degree to which housing characteristics are more or less related to educational achievement than homeownership is difficult to discern. Lien, Wu, and Lin (2008) find that homeownership and residential stability are the most important determinants of a child's educational attainment, compared to "sharing a room with sibling" (2). That said, this could be attributed to their measure of crowdedness, which "compares the number of bedrooms in a house with the number of children

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[2] Though out of scope for this review, there is a large body of research that explores the negative relationship between school mobility and educational outcomes that might support this interpretation.

in a family" (7). This is, arguably, too simple of a measure to adequately capture and make sense of the impacts of housing crowdedness (Lopoo and London 2016).

In seeking an explanation to the impact of housing characteristics on children, many hypotheses are proposed, two of which are summarized by Blau, Haskell, and Haurin: "Gove et al. (1979) and Goux and Maurin (2005) argue that crowding causes a lack of privacy and may impair a child's development. Lien et al. (2008) argued that overcrowding affects children's ability to study and thus their cognitive outcomes" (2019).

6.1.3 Correlations in an Indigenous Context

This review identified a gap in the literature on housing and education within an Indigenous context in Canada, or an off-reserve Indigenous context more specifically. The general correlation findings outlined in section 6.1.2, while interesting, fail to account for ways in which housing and education might differentially affect or relate to the experiences of First Nations, Inuit, or Métis children living off-reserve in Canada. The literature further fails to account for the regional differences that may impact these correlations within an off-reserve Indigenous context. For instance, it is likely that correlations between education and housing in an urban off-reserve Indigenous context would differ from correlations in a rural or remote off-reserve Indigenous context. No studies exploring these nuances were identified.

In their 2010 study, Bougie and Senécal use the APS to investigate the association between off-reserve registered Indigenous children's school success (as perceived by parents) and a number of family and household, student, and demographic characteristics. They consider two indicators of housing conditions: household size (as a proxy for crowded living conditions) and whether or not the dwelling was in need of repairs (as a measure of adequacy of housing conditions). Homeownership is not taken into account. They conclude that household income, housing conditions, and household size are significantly associated with off-reserve registered Indigenous children's school success, as perceived by their parents. And yet they stress that, more so than housing, socio-economic background might best serve to explain educational attainment.

In a 2015 study for Statistics Canada,[3] Turner and Thompson consider school mobility and educational outcomes of off-reserve First Nations students. They highlight the fact that the off-reserve First Nations population has comparatively high residential mobility and less favourable educational outcomes than the general population, and set out to understand how changing schools for reasons other than regular progression is related to the academic outcomes of off- reserve First Nations students. The study is not directly related to housing, yet its treatment of selection bias may be worthy of consideration. Nevertheless, it does capture a negative correlation between residential moving on school performance specifically for the off-reserve First Nations population, and in so doing provides a potential blueprint for further research.

Finally, in their 2017 report, Brackertz and Wilkinson examine housing and education in the Indigenous Australian context. Similarly to Canada, the link between Indigenous housing and

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[3] This study has been archived.

education outcomes in Australia has yet to be studied in depth, but they find that there is "a large body of circumstantial evidence that points to the impacts of housing on Indigenous children's wellbeing and associated education outcomes" (24). In considering the ways in which the education of Australian Indigenous children might be differentially impacted by housing, they pay particular attention to the indicators of mobility, overcrowding, neighbourhood effects, and remoteness.

6.2 Health

Next, we consider the correlations between health and housing, both generally and in the off-reserve Indigenous context in Canada. While it is widely recognized that housing is a social determinant of physical and mental health, some of the exact mechanisms underlying this relationship remain only partially understood.

Substantial differences in health outcomes exist between Indigenous and non-Indigenous peoples in Canada. In 2012, the most recent year for which comparative Indigenous health data appears to be available, half (49%) of off-reserve First Nations people aged 15 and older reported excellent or very good health (Figure 6.2.1), compared to 62% of the general population (Statistics Canada 2016a). Three in five (60%) off-reserve First Nations people aged 15 and older reported excellent or very good mental health, compared with 72% of the total Canadian population (Statistics Canada 2016a). In addition, three in five (63%) of off-reserve First Nations people aged 15 and older reported having at least one chronic condition, compared with 49% of the total population (Canadian Community Household Survey 2012).

After controlling for multiple social factors, Statistics Canada (2016a) found that variables predictive of a poor health outcome include daily smoking; being overweight or obese; living in a home in need of major repairs; having less than a high school education; being unemployed; having an annual household income in the lowest tercile; experiencing food insecurity; having unmet health needs; and having no one to turn to for support in a time of need.[4]

Based on the 2012 APS, Statistics Canada (2016a) also found that off-reserve Indigenous people who reported living in a dwelling where major repairs were needed were significantly more likely than those whose homes needed only minor or no repairs to report any of three negative health outcomes: "at least one chronic condition," "fair or poor self-rated general health," or "fair or poor self-rated mental health."

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[4] A poor health outcome is defined as reporting at least one chronic condition, or self-rating one's general or mental health as fair or poor.

Figure 6.2.1 — Health Measures, Off-Reserve Indigenous and non-Indigenous People in Canada, 2012
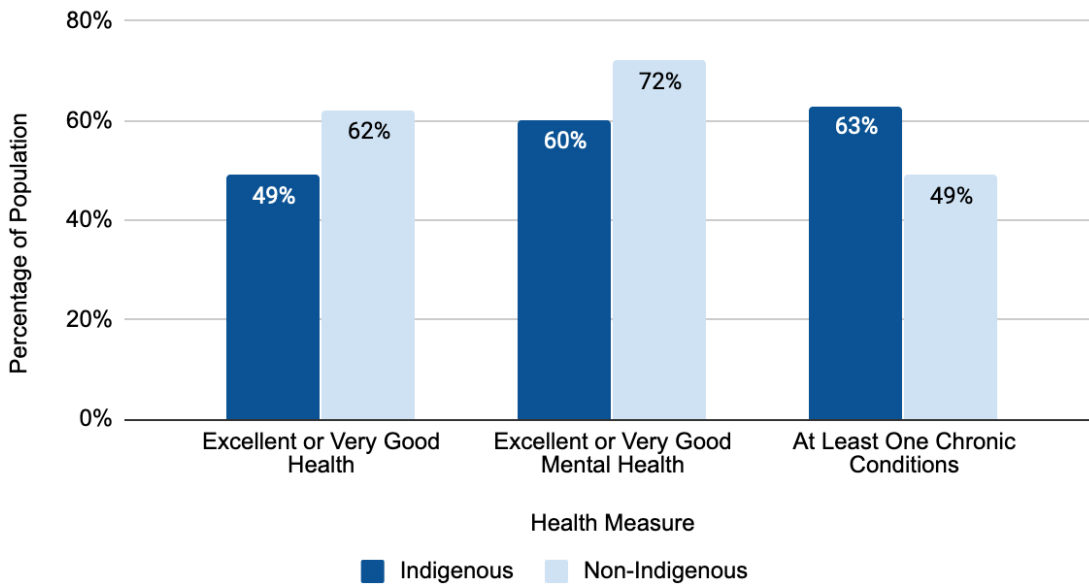
Source: Statistics Canada (2016a)

It is widely recognized that measures of health intersect and are interrelated. As a result, should the number of social determinants of poor health increase, then the likelihood of poor health outcomes also increases (Statistics Canada 2016a). This is paramount when considering the correlative relationships between housing and health, as well as any confounding factors.

Section 6.2 starts by considering the ways in which health is measured, broadly, in the literature, as well as in an Indigenous context. Commonly applied methodologies and data sources are subsequently presented. This section ends by showcasing the correlations uncovered in the literature between various dimensions of housing and health generally, as well as in an Indigenous context specifically.

6.2.1 Measuring Health

Health has traditionally been defined as the absence of illness, but the World Health Organization and others have since used a more holistic definition of health that includes physical, psychological, social, and spiritual well-being (World Health Organization 1946). This expanded definition aligns more closely with Indigenous approaches, which include maintaining physical, mental, emotional, and spiritual well-being and connecting to one's family and community (Adelson 2005).

The "Integrated Life Course and Social Determinants Model of Aboriginal Health" consolidates this approach into three categories: proximal, intermediate, and distal. Proximal social determinants of health (SDH) "have a direct impact on physical, emotional, mental or spiritual health" (10) and include health behaviours, physical environments (like housing), employment

and income, education and food security (C. Reading and Wien 2013). These may be the easiest to target and impact with policies and programs. Intermediate SDH include health care systems, education systems, community infrastructure, resources and capacities, environmental stewardship and cultural continuity (C. Reading and Wien 2013). Distal SDH can be the most challenging to target directly with policies and programs, as they refer to historic, political, social and economic contexts. Distal SDH include colonialism, racism and social exclusion, and self-determination (C. Reading and Wien 2013).

Bearing in mind this holistic understanding of health, outcomes in relation to housing have been measured in a variety of ways. Some UK researchers exploring the links between the physical aspects of housing (like mold or crowding) and physical health measured incidence of chronic diseases and infections, like respiratory illness, stomach infections, childhood meningitis and tuberculosis, and environmental factors like exposure to secondhand smoke (Blau, Haskell, and Haurin 2019). Measures may be actual incidence and diagnosis, or self-reported perceptions of physical health.

In an Indigenous context, housing and physical health studies have measured incidence of tuberculosis, respiratory illnesses, asthma, gastrointestinal illnesses and injury, particularly on-reserve and in remote and rural areas (J. Reading and Halseth 2013; NCCIH 2017b). Measures of mental health used in the literature range from self-reported physical or mental health in a general sense, to incidence of self-reported or diagnosed mental disorders, depression, anxiety, and stress (Pevalin et al. 2017; Baker et al. 2017; Mason et al. 2013; Steele and Kreda 2017). Some studies also measured broader health in terms of self-reports of children taking a day off school, or adults taking a day off work due to housing challenges (Ige et al. 2019). Researchers exploring mental health outcomes in an off-reserve Indigenous housing context in Canada used measures from assessments of addictions, depression and trauma, like the Addiction Severity Index, or ASI, administered and gathered in an intervention-based setting (Hamdullahpur, Jacobs, and Gill 2017).

Data sources used ranged from panel data sets to outcomes data captured by researchers in quasi-experimental or intervention-based studies. Particularly in intervention-based studies focusing on building design and physical structures, the data was captured through surveys, focus groups or semi-structured interviews, and typically focused on specific self-reported or diagnosed health outcomes related to the interventions (Thomson et al. 2013). Australian researchers used cross-sectional data from a postal and online survey administered in 2013 to a sample of just over 1,000 low-to-moderate income Australians, including the Health and Wellbeing Survey (a booster sample of households in poor condition dwellings in disadvantaged local areas) (Baker et al. 2017).

Panel data sources used included the Household Income and Labour Dynamics in Australia (HILDA) longitudinal study, the British Household Panel Survey, and the General Health Questionnaire in the UK (Baker, Bentley, and Mason 2013; Pevalin et al. 2017). Specific components from the HILDA used to explore mental health impacts of housing included the Mental Component Summary (MCS) Short Form Measure 36 (SF-36), or SF-12. The SF-36 consists of 36 items measuring various dimensions of health, from which eight sub-scales are

generated. The MCS, in turn, is a summary measure that relates most directly to four of these sub-scales: vitality, social functioning, role limitations due to emotional problems (role-emotional), and mental health.

Methodologies employed to understand the correlations between housing and health are also varied. Studies reviewed by Ige et al. (2019) used a range of methodologies, all typically capturing and comparing baseline and outcomes data to measure the impact of targeted housing improvement interventions across multiple countries.

A team of researchers in the UK (Pevalin et al. 2017) found changes in an individual's mental health over time (1996 to 2008) were due to housing quality, even after controlling for socioeconomic differences between individuals that could also influence mental health outcomes. While they found these impacts could be moderated by tenure type (i.e., owning one's home outright instead of living in social housing), their model showed strong evidence that ongoing poor housing or persistent housing challenges over time did lead to worse mental health, regardless of current housing conditions.

Australian researchers Baker, Bentley, and Mason (2013) used different methods to explore these same links between tenure type and mental health. Using an Australian dataset equivalent to that used in the British context that tracks the same individuals over time, they first looked at the differences in mental health both within and between people over time (2001 to 2007), according to tenure type. Then, they looked at estimated health changes over time within individuals only, so as not to confound the analysis by the composition of people within each tenure type. As strong as the links between housing and mental health were in their study, they noted they did not explore the larger question of how persistent poverty may affect housing options and mental health.

A team of UK and Australian researchers (Baker et al. 2017) used an even more ambitious method drawing from both epidemiology and housing research to first construct an "Index of Health Insults" that condensed a range of housing domains or "housing bundles" down into an index sensitive to differences between individuals. Then, they looked at how this index predicted outcomes for an ordered scale of general self-rated health, ranging from poor to excellent health. They then explored the probability of individuals either having depression or not in relation to this set of housing bundles. They note that while the final orders of estimated magnitude may seem small, changes in these housing bundles can have large impacts when considered at the population level, especially for vulnerable groups who may be experiencing an interacting set of housing and health challenges.

In the Canadian context, Hamdullahpur, Jacobs, and Gill (2017) compared differences in mental health outcomes of inner-city Indigenous and non-Indigenous women in unstable housing. Their method included capturing a range of baseline socioeconomic data through interviews with women seeking social services or staying in shelters. They also captured baseline data on addictions, mental health challenges, and trauma through clinically-proven assessment questionnaires completed in discussion with the women. Using this consolidated baseline data, they compared socioeconomic indicators and health outcomes between Indigenous and non-Indigenous women to identify differences unique to each population. While they found that, on

the whole, Indigenous women in unstable housing reported worse health outcomes, following these women over time would help better understand the underlying mechanisms and any additional contextual factors (poverty, social or family support in the city, and number of children, among others) that may affect these observed differences.

6.2.2 General Correlations

6.2.2.1 General Correlations Summary

While there is well-documented evidence for a causal relationship between housing condition (like state of repair) and health outcomes, research spanning the late 90s to present day has consistently produced no compelling evidence of causation between the other dimensions of housing (i.e., affordability, stability or overcrowding) and non-housing outcomes (S. Hwang et al. 1999; Pomeroy and Marquis-Bissonnette 2016; Steele and Kreda 2017). Efforts to identify a single mechanism by which social, economic, and cultural housing factors exert an influence on a specific health outcome is extremely challenging (S. Hwang et al. 1999). The literature has confirmed, however, that there are a range of intervening factors that mediate the relationship between housing and non-housing outcomes like education, health, and employment, as well as child development, family stability, and crime and safety (Steele and Kreda 2017).
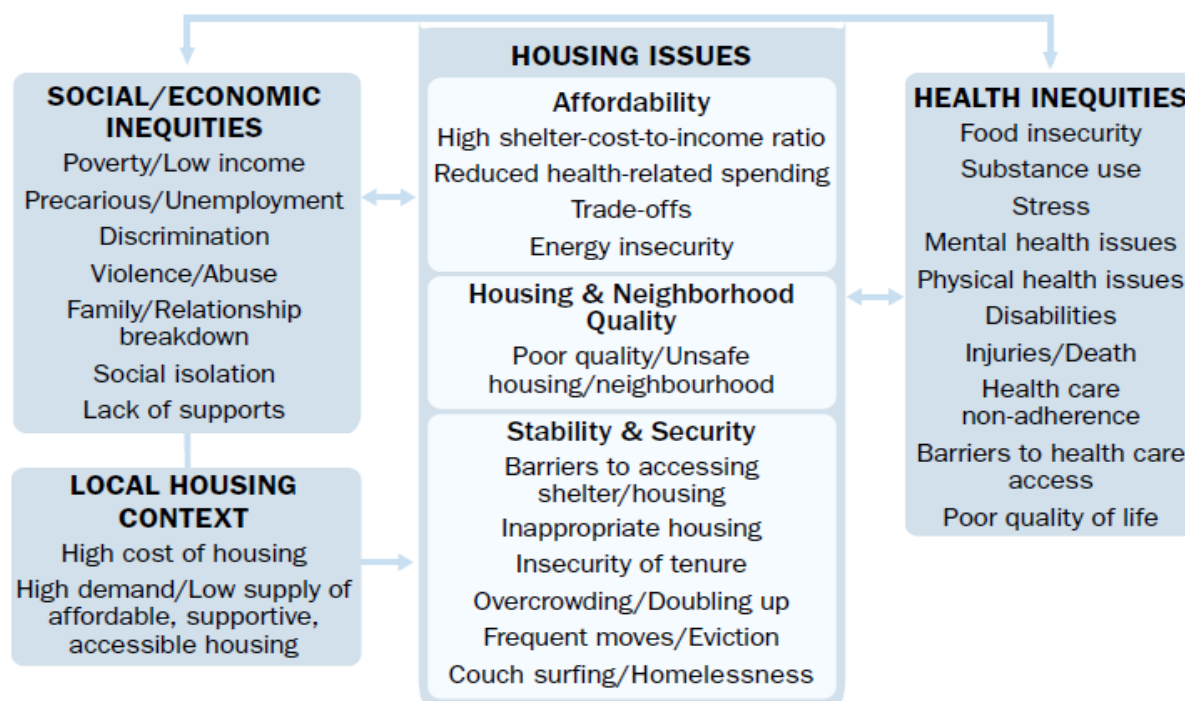
These intervening factors include:

- household socioeconomic characteristics and capacities;
- housing tenure;
- housing location;
- neighbourhood conditions; and
- the overarching government policy framework (which includes health system, education system, social safety net, employment initiatives, crime prevention strategies, early childhood development programs etc.). (Steele and Kreda 2017)

In the case of housing tenure and health, Baker, Bentley, and Mason note that associations "would be subject to residual confounding even after adjustment for a range of characteristics including age, socioeconomic position and socio-demographic characteristics" (2013, 427). While stable, affordable housing is helpful, it will not, by itself, lead directly to improvement in non-housing outcomes, like health (Steele and Kreda 2017).

Figure 6.2.2 from Toronto Public Health seeks to simplify the complex relationship between housing and health. Many of the factors within each of the boxes can be interrelated, however, and the list of health inequities are a mix of both health-related behaviours and health outcomes. Additionally, different housing dimensions are associated with different health-related behaviours and outcomes (Toronto Public Health 2016).

Figure 6.2.2: How are Housing and Health Related?

SOCIAL/ECONOMIC INEQUITIES
Poverty/Low income
Precarious/Unemployment
Discrimination
Violence/Abuse
Family/Relationship breakdown
Social isolation
Lack of supports

LOCAL HOUSING CONTEXT
High cost of housing
High demand/Low supply of affordable, supportive, accessible housing

HOUSING ISSUES
Affordability
High shelter-cost-to-income ratio
Reduced health-related spending
Trade-offs
Energy insecurity

Housing & Neighborhood Quality
Poor quality/Unsafe housing/neighbourhood

Stability & Security
Barriers to accessing shelter/housing
Inappropriate housing
Insecurity of tenure
Overcrowding/Doubling up
Frequent moves/Eviction
Couch surfing/Homelessness

HEALTH INEQUITIES
Food insecurity
Substance use
Stress
Mental health issues
Physical health issues
Disabilities
Injuries/Death
Health care non-adherence
Barriers to health care access
Poor quality of life

Source: Toronto Public Health (2016)

Recognizing that interrelated variables may confound the relationship between health and housing, Baker et al. (2017) approach this from the holistic perspective of "housing bundles" to develop an "Index of Housing Insults" (IHI), instead of examining separate housing elements (like tenure, affordability, housing quality, or "neighbourhood effects"). After controlling for confounders, the IHI does have predictive power for mental health, general health, and clinical depression, beyond the more traditional measures like tenure or income. The IHI provided no additional predictive power in the case of physical health, however. Based on their findings, they observe that "for many lower-income people, housing bundles act alongside and in addition to broader poverty, exposing them to the double disadvantage from both poverty and accumulated housing problems" (2017 sec. 5).

Figure 6.2.3 from CMHC describes a causality chain or conceptual framework to understand the linkages in the relationship between a housing intervention and health outcomes. This framework considers intermediate effects and mediating factors which, taken together, may lead to indirect non-housing outcomes like improved health.

Figure 6.2.3: Causality Chain
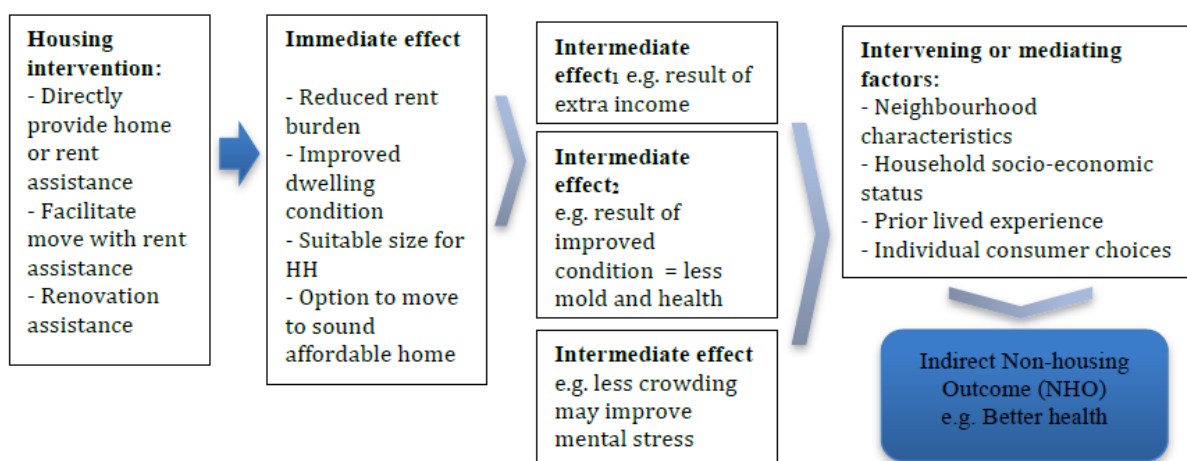
Source: Pomeroy and Marquis-Bissonnette (2016)

6.2.2.2 Crowding

The links between crowding and health outcomes are well-established in the literature. In their review of the literature, Blau, Haskell and Haurin write the following:

> Living in crowded conditions with little play space has been argued to increase a child's level of stress (Ineichen and Hooper, 1974; Saegert,1982). In the medical literature, Mann et al. (1992) found that overcrowding is associated with a higher incidence of respiratory illness, Galpin et al. (1992) argued that crowded living conditions were related to a higher rate of stomach infections, and Prescott and Vestbo (1999) noted that crowding is related to stress, more easily transmitted infections, and secondary cigarette smoke. (2019 sec. 2)

A recently-updated review of the housing literature conducted by the CMHC found that crowding and housing conditions both have negative impacts on the mental health of occupants, while the links between stable, affordable housing, and mental health were found to be dependent upon mediating influences like neighbourhood context or characteristics, and housing tenure (Steele and Kreda 2017).

6.2.2.3 Adequacy

A meta-analysis of international literature to assess changes in health following housing improvement by Thomson et al. (2013) found that improving the thermal comfort in the home can lead to health improvements, especially when targeted at those with inadequate warmth and those with chronic respiratory disease. Additionally, across the 39 qualitative and quantitative studies they considered, there is some suggestion that provision of adequate, affordable heating may reduce absences from school or work. Confounding factors in this meta-analysis included baseline housing quality, eligibility for housing improvement (if part of a neighbourhood renewal or improvement program), socio-economic status, and health status.

A more recent (2019) UK-based systematic review of 39 international studies on the relationship between buildings, housing and health at a population level also found that adequate housing quality was associated with improved respiratory outcomes, quality of life, and mental health (Ige et al. 2019). Further, this review confirmed that providing affordable housing of good quality to vulnerable groups is important for addressing health inequality gaps. The reviewers noted, however, that while several features of housing and health are related, the relationship may not necessarily be causal. Confounding factors could include multiple interventions conducted in one study (heating improvements and ventilation). Further, the reviewers noted that reverse causality could not be ruled out, with poor health negatively affecting housing opportunities.

British researchers found that persistent housing problems are associated with poor mental health, and that social renters and owners are affected by housing problems the most (Pevalin et al. 2017). Irrespective of current housing conditions, poor housing was predictive of worse mental health.

6.2.2.4 Ownership and Tenure

Studies exploring housing tenure and mental health have identified five main underlying mechanisms of impact: prestige of homeownership, burden of debt, affordability, residential instability, and housing condition (Baker, Bentley, and Mason 2013). Home ownership or housing tenure may increase one's sense of self-esteem and prestige, however, this may be diminished by the financial strain of mortgage debt, and stress and anxiety related to affordability. Rental instability may contribute to a fracturing of social assistance networks, and contribute to negative mental health outcomes if renters need to move often or their housing is otherwise insecure (Baker, Bentley, and Mason 2013). The link between housing tenure and mental health may be confounded by broader social disadvantage (or poverty), and compositional selection bias (healthier and wealthier individuals can buy a home, while those struggling with poverty may only have the choice of renting) (Baker, Bentley, and Mason 2013). Other studies also concluded that poor mental health among renters was more a reflection of the composition of the population than an effect of being in that tenure type (Mason et al. 2013). This outcome may be compounded by cumulative disadvantage (social housing may be located in less desirable neighbourhoods), and is sensitive to contextual factors, like the structure and nature of social housing programs.

6.2.3 Correlations in an Indigenous Context

Links between some aspects of Indigenous health and housing are well-established in Canadian literature, particularly for the on-reserve context and in remote, northern or isolated areas. In particular, research demonstrates the relationship between overcrowded living conditions, housing quality, accessibility and affordability, and health outcomes like tuberculosis, respiratory illnesses, gastrointestinal illnesses, and homelessness (J. Reading and Halseth 2013). Also, a systematic review of social determinants of Indigenous health in the Canadian context found that inappropriate living conditions and quality are linked with health issues such as unintentional injuries, respiratory and infectious diseases, mental and psychological challenges, and domestic violence (Kolahdooz et al. 2015).

As helpful as these studies are, there appears to be little research work undertaken in an off-reserve or urban Indigenous context beyond useful summaries produced by Indigenous research bodies and federal publications outlining the gaps in health outcomes or housing. Canadian researchers have found that few formal Canadian studies deeply examine the correlations between health and off-reserve housing. A Canadian Needs, Gaps and Opportunities Assessment (NGOA) conducted in 2002–2003 concluded that, at that point in time, there was a dearth of research on the socio-economic dimensions of housing and health, despite its widely-accepted potential for promoting health (Dunn et al. 2006). Stakeholders consulted during this NGOA were eager to better understand the impact of housing on health for vulnerable subgroups, like Indigenous peoples, representing an opportunity for future research (Dunn et al. 2006). A more recent (2015) systematic review of Indigenous SDH found that there is still limited knowledge of factors contributing to current housing status and impacts on Indigenous health outcomes, as well as a shortage of peer reviewed studies on housing-related Indigenous health challenges (Kolahdooz et al. 2015).

Some Canadian researchers note that lack of affordable and adequate housing contributes to homelessness in urban areas (J. Reading and Halseth 2013), which brings a unique set of challenges for Indigenous people. These studies mention the overrepresentation of Indigenous people in Canada's homeless population, but do not seem to explicitly explore the mechanisms between homelessness and health that may be unique in an urban Indigenous context (S. W. Hwang 2001). This also represents an opportunity for further research. Given there seems to be little to no foundational research exploring housing and Indigenous health specifically in an off-reserve context, any basic research that can serve as a starting point is important.

The literature did reveal, however, one Canadian intervention-based study comparing the socioeconomic status and mental health outcomes of Indigenous and non-Indigenous women that may be instructive for identifying indicators applicable in an urban Indigenous context. Hamdullahpur, Jacobs, and Gill (2017) considered the number of years of education, employment pattern (past 3 years), receipt of social assistance, monthly income, and addiction severity scores. The majority of the 82 Indigenous women interviewed and assessed in the Montreal area that were living in shelters, expressed a need for temporary housing and were fleeing abusive relationships. This study concluded that:

> Aboriginals migrating to the urban environment may be at particular long-term risk for unstable housing and economic disadvantage given their higher number of dependents, higher amounts of money spent on alcohol and cigarettes, higher rates of experiencing violence/crime and their lack of social support (fewer family members in the urban milieu compared with non-Aboriginals). Longitudinal follow-up studies would be required to determine longer-term outcomes for this urban help-seeking population. (Hamdullahpur, Jacobs, and Gill 2017, 6)

6.3 Labour Force Participation

Next, we consider housing in relation to labour force participation. Housing and employment are both part of the set of proximal SDH, or those factors directly affecting physical, emotional, mental, or spiritual health (C. Reading and Wien 2013). Housing may also indirectly affect labour market participation through education and health impacts. While research exists exploring if housing has a negative or positive impact on labour force participation, there seems to be no conclusive evidence of causality (Steele and Kreda 2017). Further, there appears to be little academic research available in Canada examining the underlying mechanisms between housing and labour force participation in an off-reserve Indigenous context. Based on the general literature, however, housing dimensions like crowding, adequacy, tenure, and residential stability may affect labour force participation, and may represent avenues for further research.
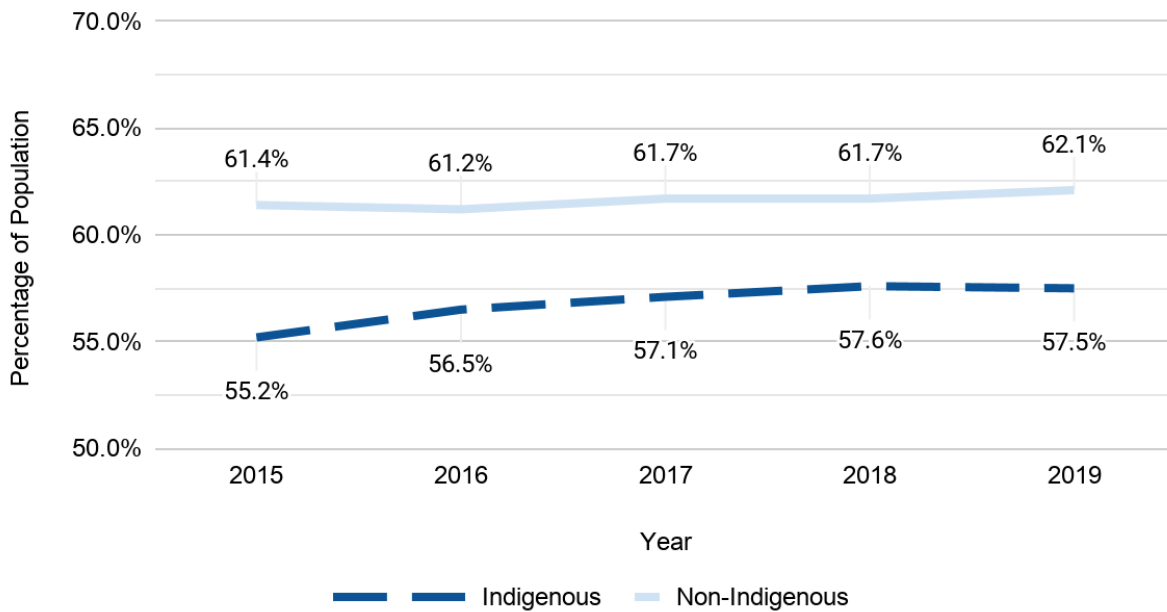
Disparities in labour force participation between Indigenous and non-Indigenous people in Canada are well documented. According to Statistics Canada, in 2019 the unemployment rate for off-reserve Indigenous adults (15 years or older) in Canada was 10.1%, compared to 5.5% for non-Indigenous adults (Figure 6.3.1). The employment rate for Indigenous adults in 2019 was 57.5%, compared to 62.1% for non-Indigenous adults (Figure 6.3.2). Finally, the participation rate in 2019 was 63.9% for Indigenous adults, and 65.7% for non-Indigenous adults (Figure 6.3.3).

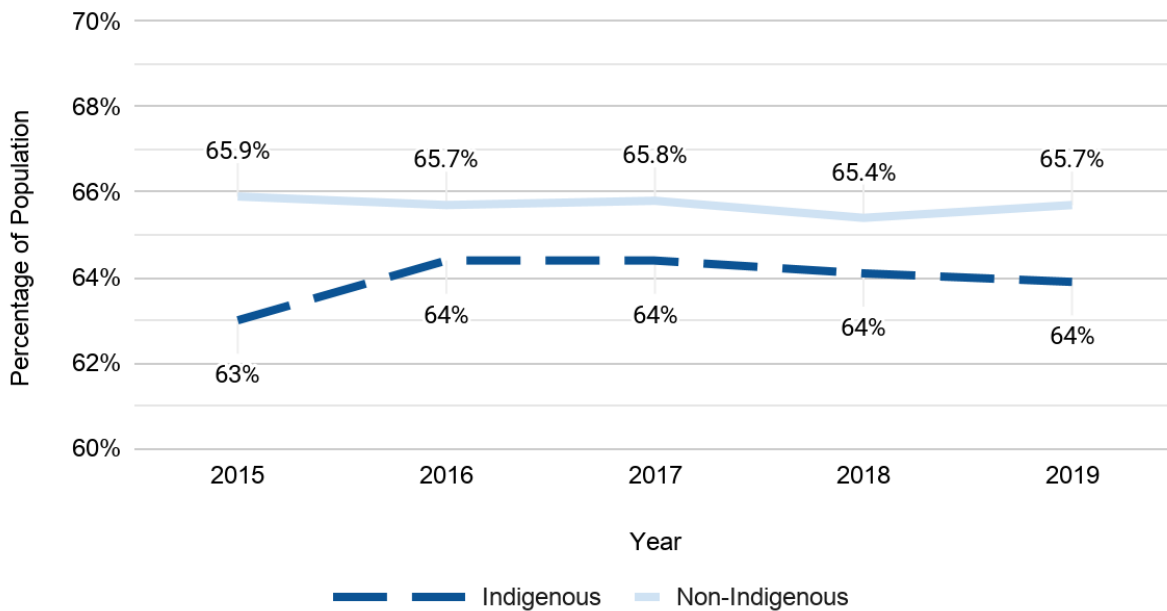**Figure 6.3.1 — Unemployment, Off-Reserve Indigenous and Non-Indigenous Adults in Canada, 2015–2019**
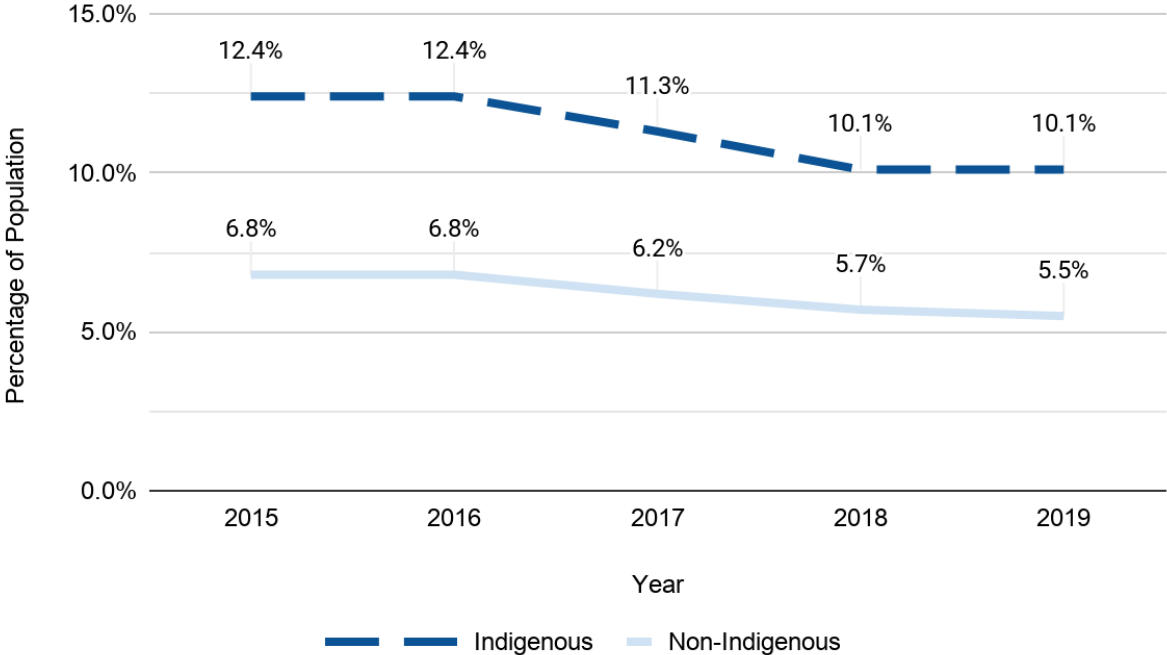
Source: Statistics Canada (2020)

Figure 6.3.2 — Employment, Off-Reserve Indigenous and Non-Indigenous Adults in Canada, 2015–2019

Percentage of Population vs. Year

Non-Indigenous: 61.4% (2015), 61.2% (2016), 61.7% (2017), 61.7% (2018), 62.1% (2019)

Indigenous: 55.2% (2015), 56.5% (2016), 57.1% (2017), 57.6% (2018), 57.5% (2019)

Legend: Indigenous, Non-Indigenous

Figure 6.3.3 — Labour Force Participation, Off-Reserve Indigenous and Non-Indigenous Adults in Canada, 2015–2019

Percentage of Population vs. Year

Non-Indigenous: 65.9% (2015), 65.7% (2016), 65.8% (2017), 65.4% (2018), 65.7% (2019)

Indigenous: 63% (2015), 64% (2016), 64% (2017), 64% (2018), 64% (2019)

Legend: Indigenous, Non-Indigenous

Section 6.3 summarizes how labour force participation is measured in the general literature. This section also summarizes some standard methodologies and the range of data sources used

across the general literature. Lastly, this section explores how various housing dimensions affect labour force participation, broadly, and, as literature exists, in the Indigenous context internationally, and in Canada.

6.3.1 Measuring Labour Force Participation

Generally in the literature reviewed, labour force participation is measured according to three main indicators:

1. Employment
2. Unemployment
3. Not in the labour force

Wages are also used as an indicator of labour force outcomes by Coulson and Fisher (2002), while Stephens (2010) and Thapa, Shah, and Ahmad (2012), both based in Australia, consider "CDEP employment participation."[5]

A range of data sources were used across the studies reviewed to explore the links between housing and labour force participation. In the Australian Indigenous context, the 2002 and 2008 waves of the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) were used by two different researchers (Stephens 2010; Thapa, Shah, and Ahmad 2012). The Australian NATSISS is comparable to the APS. In Denmark, Munch, Rosholm and Svarer (2006) used a mix of administrative data capturing a flow of all unemployment spells from 1997 to 2000 for individuals in a 10% random sample of the Danish population. They further linked this administrative data to demographic and socioeconomic variables at the individual level. In the United States, Green and Hendershott (2001) obtained homeownership and unemployment rates data from the *Statistical Abstract* of the US, and used the 5 in 100 samples of the 1970 and 1990 US Census to compute variations in these series by age-class and by headship status.

In considering the labour market itself, some variations are noted. First, Munch, Rosholm and Svarer (2006) separate the labour market in two: the local labour market and the national labour market (between which commuting is not possible), in a bid to better capture the relationship between homeownership and labour market outcomes explored in Section 6.3.2.2. Second, Stephens (2010) suggests the application of Segmented Labour Market (SLM) theory. Indeed, Stephens proposes that much of the literature reviewed assumes a neoclassical human capital framework by which employment and labour supply are expected to respond positively to increased human capital such as education or improved health. In contrast, SLM theory "contends that human capital may have only a limited role in determining an individual's labour force status relative to the dominant effect of socio-cultural or institutional factors" (Cain 1976; Stephens

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[5] CDEP, or Community Development Employment Projects, was a program established in 1977 in Australia to replace the unemployment benefits for Aborigines and Torres Strait Islanders living in remote areas (Hudson 2008).

2010). As a result, SLM theory and its most common model, "dual market theory," could account for social, cultural, and institutional factors that impact labour market outcomes (Stephens 2010). This type of model may be instructive in the off-reserve Indigenous context, as it may broadly align with the distal SDH definition that includes historic, political, social and economic contexts (C. Reading and Wien 2013).

In terms of methodologies, international researchers, including those working in the Australian Indigenous context, use a range of approaches. Recognizing broader socio-cultural or institutional factors may have a greater impact on employment status for Indigenous Australians than individual-related factors like years of schooling, researchers Stephens (2010) and Thapa, Shah, and Ahmad (2012) each apply methods in line with SLM theory to understand what other factors may influence Indigenous employment. Both studies include cultural dimensions, like participating in cultural activities. While Stephens includes a range of housing domains in his model, like overcrowding and adequacy, Thapa's team chose not to include housing domains because housing choices may be more a consequence of employment status and income levels. Munch, Rosholm, and Svarer (2006) look at housing and employment from the perspective of competing risks, where homeowning individuals consider the risk of moving elsewhere in the hopes of finding work, compared to the risk of trying to find a local job and staying put. Lastly, Green and Hendershott (2001) look at changes in unemployment rates in the United States between 1970 and 1990 in relation to changes in home ownership rates. They posit that unobserved characteristics of homeowners more interested in having a stable home than moving for a new job might have more to do with any negative relationships between homeownership and unemployment.

6.3.2 General Correlations

6.3.2.1 General Correlations Summary

Similar to the literature exploring housing and education, most of the literature that considers housing and labour force participation explores the question using the type of tenure as the primary determinant. In this case, homeownership and housing assistance are the two most commonly considered indicators.

Overall, there is limited evidence of a direct relationship between housing and labour force participation, both in general and in an Indigenous context. The evidence that is presented has more to do with the indirect relationships already explored in this review, namely, the impact of housing on education and health, which then in turn influence labour force participation. More research, especially in the Indigenous context specific to Canada, is suggested.

6.3.2.2 Homeownership

A considerable amount of the literature exploring the relationship between housing and labour force participation focuses on housing tenure and homeownership (Oswald 1997; Green and Hendershott 2001; Munch, Rosholm, and Svarer 2006; Coulson and Fisher 2002; Hajer and

Canadian Centre for Policy Alternatives--Manitoba 2009; Dietz and Haurin 2003; Coulson and Li 2013).

Surprisingly, much of the literature provides evidence of a positive relation between homeownership and unemployment rates (Oswald 1997; Green and Hendershott 2001). Originally presented by Oswald, the argument is that homeowners are less mobile than private-sector renters, and are less willing to move to jobs when they become unemployed. This in turn, might translate into longer spells of unemployment compared to more mobile renters.[6] Counter-evidence to Oswald's theory negates not the mechanism by which homeownership hampers mobility, but rather suggests that there are countervailing effects at play, including the positive effect homeownership has on finding employment in the local labour market (Munch, Rosholm, and Svarer 2006; Coulson and Fisher 2002).

As a reminder, findings from Section 6.1 suggest a positive relationship between homeownership, residential stability, and educational attainment. In turn, education is considered to be one of the most significant determinants of improved labour market outcomes. This would suggest, at least in theory, that if homeownership is positively associated with unemployment for homeowners, it is negatively associated with unemployment for homeowners' children over the course of their lifespan.

6.3.2.3 Housing Assistance and Spatial Inequality

The relationship between housing assistance and labour market outcomes is also explored in the literature, though to a lesser degree than homeownership. Literature reviews conducted in Australia and in Canada suggest that, in theory, housing assistance (Bridge et al. 2003; Pomeroy and Marquis-Bissonnette 2016) or affordable housing (Steele and Kreda 2017; Steele, Pomeroy, and Kreda 2018) may generate (unearned) income and substitution effects on labour supply, as well as provide incentives to maintain low incomes over time. This would suggest that housing assistance would exhibit a negative relationship with labour force participation. Further, a report by Brackertz and Wilkinson contends that, similarly to homeowners, "[p]ublic housing tenants frequently have lower levels of geographic mobility, which can affect their ability to access paid employment" (2017, 35).

On the other hand, the literature suggests that housing assistance may translate into new household formation and lower crowding, provide stability, better education and improved health outcomes (Bridge et al. 2003; Pomeroy and Marquis-Bissonnette 2016; Steele and Kreda 2017). In turn, improved health outcomes due to housing adequacy and suitability may translate into reduced absenteeism (in other words, increased labour force participation). Further, stability and better education would, in theory, translate into inter-generational improvements in labour market participation.

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[6] The research on homeownership and labour mobility reviewed includes foundational works spanning the last two decades. As a result, we suspect that these models did not consider remote work as a variable worthy of consideration, and these findings should be considered with caution.

Overall, there is not enough empirical evidence to affirm whether housing assistance enables increased employment. This situation is exacerbated when considering that the majority of the empirical evidence on the subject comes from the United States, and may have little connection to the Canadian context. This gap provides an opportunity for further research.

Beyond housing assistance, Bridge et al. (2003) additionally colour our understanding of housing and labour force participation by underscoring the spatial dimensions of both housing and employment. In effect, they note that individuals or households generally reside in locations that are distinct to those where employment is undertaken. As a result, this creates the risk of a mismatch between the location of people and the location of jobs (recall Oswald's (1997) theory on homeownership and unemployment). Bridge et al. then draw our attention to the concept of locational inequality, which, in short, suggests that "not all locations are equal in terms of the environment they offer for human capital formation or for job opportunities" (2003, 24). This point would imply that labour market opportunities differ depending on the neighbourhoods individuals reside in. The authors further note the potentially detrimental impacts on children if parents have limited employment opportunities due to the location of public housing.

6.3.3 Correlations in an Indigenous Context

This review uncovered studies and reports exploring housing and Indigenous employment within an Australian context, but limited results were found for Canada. Overall, it seems there is limited evidence on the links between housing and Indigenous employment or economic development outcomes (Brackertz and Wilkinson 2017). The evidence that does exist suggests that 'crowding' and 'structural problems' have a statistically significant negative association with labour force status (Stephens 2010).

It is unclear from the literature, however, if the relationship between labour force outcomes and crowding and structural problems (which we take to be a proxy for housing adequacy) is direct or indirect. The indirect relationship is captured by Stephens when he notes that "[a] number of studies have suggested that poor housing may affect Indigenous Australian's labour market outcomes through its negative implications for health and educational attainment" (2010, 300). We understand the implications of housing on educational attainment from Section 6.1, as well as the correlations between housing and health from Section 6.2. But Stephens also suggests a possible direct relationship between crowding and structural problems and employment prospects after controlling for both health and education. More research would be necessary to affirm any conclusions, particularly any that would pertain to the Canadian context.

Finally, remoteness is raised as a consideration, and some findings suggest that "[h]olding other things constant, living in remote areas is known to have a significant negative effect on employment" (Stephens 2010, 290). However, this effect is yet to be demonstrated by a systematic analysis, and may simply be due to the higher prevalence of poor housing conditions in remote areas (Stephens 2010).
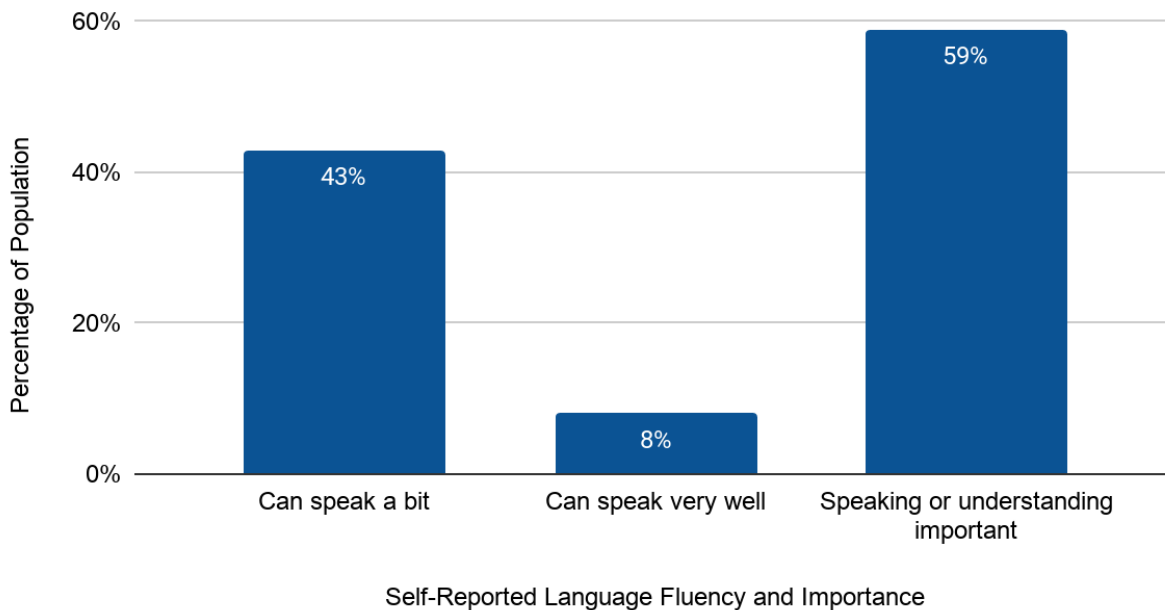
6.4 Indigenous Languages

Lastly, we will explore any links between housing and Indigenous languages that may be documented in the literature. As previously mentioned, exploring the relationship between housing and Indigenous languages may not align with euro-western considerations of housing, its uses, and its downstream impacts. This section serves as an opportunity to create space for considering novel housing indicators and measures, stepping beyond the paradigms that we might be accustomed to.

Considerable research exists exploring the links between Indigenous culture, broadly, and health outcomes (Walters, Simoni, and Evans-Campbell 2002; Stone et al. 2015; Rieckmann, Wadsworth, and Deyhle 2004; Gonzalez et al. 2018). There appears, however, to be little research looking at the underlying mechanisms between Indigenous languages, as a proxy for cultural connection, and housing. Canadian researchers note the opportunity to explore the links between Indigenous language learning and the impacts of suitable housing, among other culturally appropriate factors (Ball 2009; Duff and Li 2009), as well as the impact of urban neighbourhood education level on Indigenous language outcomes (Findlay and Kohen 2012).

Indigenous languages are inherently valuable and linked, among other things, to individual and community connection, identity, cultural practices, and intergenerational cultural knowledge transmission (Chandler and Lalonde 2016; Gonzalez et al. 2018). Given Canada's history of separating Indigenous children from their homes, families, communities, cultures, and languages (NCCIH 2016), present-day housing and related interventions may support Indigenous language maintenance and revitalization, if even indirectly.

According to the 2012 APS, 43% of off-reserve First Nations people aged 15 and older reported that they could speak an Indigenous language, even if only a few words, while 8% said that they could speak an Indigenous language very well or relatively well (Figure 6.4.1). Despite a low proportion reporting they could speak an Indigenous language very well or relatively well, six in ten (59%) felt that speaking or understanding an Indigenous language was either somewhat or very important to them (Statistics Canada 2016a).

Figure 6.4.1 — Indigenous Language Measures, Off-Reserve Indigenous People in Canada, 2012

Self-Reported Language Fluency and Importance

Source: Statistics Canada (2016a)

Section 6.4 considers how Indigenous languages are measured in all of the Canadian studies uncovered, as well as how they are measured in common Canadian datasets. This section also explores which datasets and methodologies were used in any existing Canadian studies. Lastly, this section uncovers any correlations found in the literature between Indigenous language and housing in a uniquely off-reserve Indigenous context.

6.4.1. Measuring Languages

The measures used in the seemingly sole Canadian study exploring the links between Indigenous languages and housing were:

● parent-reported indicators of children's language outcomes (including expressive language);
● mutual understanding of language;
● storytelling; and
● the presence of any speech or language difficulties. (Findlay and Kohen 2012)

Indigenous languages are measured in the 2016 Census in terms of:

● language spoken most often at home;
● any other languages spoken regularly at home;
● the language first learned at home and still understood; and
● language(s) spoken well enough to conduct a conversation. (Statistics Canada 2016b)

The 2011 National Household Survey (NHS) captures data on the measures of:

- knowledge of non-official languages;
- home language (or language spoken in the home);
- mother tongue; and
- first official language spoken. (Statistics Canada 2013c)

The 2017 Aboriginal Peoples Survey considers the following Indigenous language measures:

- Knowledge of Aboriginal languages;
- Primary Aboriginal language; and,
- Ability to understand this language. (Statistics Canada 2018c)

While the NCCIH notes additional measures of fluency captured in the First Nations and Information Governance Centre's (FNIGC) Regional Health Survey (NCCIH 2016), the on-reserve population captured in this survey may not be directly applicable to CAP's constituency.

In terms of data sources, Findlay and Kohen use the Aboriginal Children's Survey (ACS) to look at the language outcomes of First Nations off-reserve children aged 2-5, and combine this with neighbourhood information based on postal code at the dissemination level from the 2006 Census. The Census, the 2011 National Household Survey, and the FNIGC Regional Health Survey also all include Indigenous language variables (NCCIH 2016).

In terms of methodology, Findlay and Kohen analyzed the strength of the links between Indigenous language and housing. They examined the effects of neighborhood characteristics (structure and organization) on the language outcomes of off-reserve First Nations children, and possible mediation of these effects by family-level socio-economic and neighborhood factors (organization, culture).

6.4.2 Correlations in an Indigenous Context

This review uncovered only one academic study examining the correlations between housing and Indigenous languages in a Canadian context. While some academic studies do broadly consider housing as one factor contributing to language learning, this relationship is not the primary focus. Other studies yield anecdotal findings about the links between intergenerational housing disruption and displacement and limited exposure to Elders, and the ability to learn Indigenous languages in the home.

6.4.2.1 Suitability

Studies tangentially considering housing and Indigenous languages typically refer to suitability in broad terms. Cantoni (2007) notes the central importance of extended family and suitable housing for language learning in traditional Indigenous cultures. With grandparents, aunties, and uncles living in the same household, there are multiple points of contact to directly pass down language and culture to the children. Navajo educators observe that speaking primarily Indigenous

languages in the home also transmits Indigenous family values, as "children who speak Navajo act differently when their grandmother is in the house" (Cantoni 2007, 86). Interestingly, the City of Vancouver has already begun incorporating Indigenous design principles in their most recent housing strategy, recognizing "the fluid family structures and community aspects of Indigenous life" and the need for "innovative design opportunities for intergenerational and spacious and flexible living units" (City of Vancouver 2018, 49).

International findings suggest broad links between the education of Indigenous children in English-dominant schools and "housing problems… and very serious linguistic harm," among other links (Skutnabb- Kangas and Phillipson 2010, 85). This impact may be moderated, however, by using an Indigenous language at home, and living in adequately maintained dwellings, as well as by income levels (Bougie and Senécal 2010). Findings on household size appear to be mixed, as some researchers find it is positively associated with greater use of an Indigenous language in the home (Guèvremont and Kohen 2012), while others find a greater number of children and adults in the household is negatively associated with language outcomes (Findlay and Kohen 2012).

6.4.2.2 Mix of Housing Dimensions

Neighbourhood factors may have an impact on Indigenous languages. Neighbourhoods with high tenancy turnover may disrupt social organization, which can have a negative impact on early language outcomes (Findlay and Kohen 2012). Gonzalez et al. found in the Ojibwe language context that lack of access to cultural and community assets typically found on reserve may "lead to a negative correlation between living off the reservation and language proficiency" (2018). Canadian researchers found this can be mediated, however, by involvement with and access to cultural facilities and language activities in the neighbourhood or broader community (Hallett, Chandler, and Lalonde 2007). Inuit moving south to Ottawa note the importance of neighbourhood cultural and community centres for maintaining social networks and linguistic practices (Patrick and Tomiak 2008). Findlay and Kohen confirm this, noting that "living in a neighborhood with Indigenous activities available was beneficial for both mutual understanding and speech and language difficulties (over and above family-level and other neighborhood variables)" (2012). In this way, Indigenous activities (including languages) may represent a marker for cultural participation within the neighbourhood, and also of neighbourhood cohesion for Indigenous people (Findlay and Kohen 2012). Not only are these Indigenous activities important, according to Findlay and Kohen, but they are independent from other family and neighborhood characteristics such as family income or neighbourhood socio-economic conditions.

Findlay and Kohen (2012) find that a mix of housing-related dimensions, like neighbourhood structural features and neighbourhood organization, have an impact on language learning outcomes of off-reserve Indigenous children. While living in a neighbourhood with a higher proportion of housing in need of repairs is associated with lower mutual Indigenous language understanding, this can be mediated by safety and having Indigenous activities available. Poor housing conditions seem to be associated with reported lower levels of neighbourhood safety and access to Indigenous activities (Findlay and Kohen 2012). While neighbourhood safety perceptions are positively associated with language outcomes, these do not hold when family and

neighbourhood structure factors are considered. It may be that higher ratings of neighbourhood safety are linked to higher incomes and education levels and smaller household sizes, which may explain why children in safe neighbourhoods have better Indigenous language outcomes (Findlay and Kohen 2012). Socio-economic neighbourhood dimensions also have an impact on early language outcomes. The neighbourhood education level (specifically the proportion with less than a high school education) has a negative impact, while the neighbourhood unemployment level has a positive impact, even after taking family-level and neighbourhood organization factors into account (Findlay and Kohen 2012). A higher neighbourhood unemployment level may increase opportunities for Indigenous children to interact with a greater number of adult language speakers more often.

7.0 Document Review Findings

Running parallel to the Literature Review, the Document Review sought to answer the following research question:

> What is the range of potentially applicable and published recommendations from organizations, agencies, providers, tables, bodies and municipalities across the off-reserve Aboriginal housing, short-term shelter and social housing landscape, especially related to culturally responsive and holistic approaches (like socially inclusive housing and a housing continuum), increasing housing stock, housing affordability, and addressing the off-reserve population in core housing need?

We present these findings in Tables 7.1 and 7.2.

7.1 Stakeholders & Recommendations

The following table provides a non-exhaustive overview of the range of publicly-available recommendations from stakeholders operating in the urban Indigenous housing sector. Stakeholders range from the United Nations Special Rapporteur on the right to adequate housing and National Indigenous Organizations, to Indigenous service providers and municipalities. Awareness of the range of stakeholders and recommendations may assist those Indigenous organizations and federal agencies working in the Indigenous housing sphere with identifying potential future research partnership opportunities, or advocacy areas of shared interest.

Table 7.1 — Stakeholders & Recommendations

Stakeholder(s)	Description of Activities	Recommendations (if applicable)
Ontario Federation of Indigenous Friendship Centres Ontario Aboriginal Housing Services Gignul Housing Ottawa Regroupement des centres d'amitié autochtones du Québec Lu'ma Native Housing Vancouver Indigenous Community Advisory	Urban Indigenous housing and homelessness service providers jointly issued a Statement on the National Urban Indigenous Housing Strategy December 2019 following a meeting with the United Nations Special Rapporteur on the right to adequate housing, Leilani Farha.	Recognise that urban, rural and northern Indigenous housing and homelessness conditions are egregious and unacceptable and that these must be addressed on an urgent and priority basis, consistent with international human rights law.
		Recognize the right to adequately resources National Urban and Rural Indigenous Housing Strategy developed and implemented by urban, rural and northern housing and service providers.
		Recognise urban, rural and northern housing and service providers as expressions of Indigenous self-

Board on Urban Indigenous Homelessness		determination, as recognized by the Federal Court of Appeal in Ardoch Algonquin First Nation (Misquadis) and as per articles 4, 21 and 23 of the United Nations Declaration on the Rights of Indigenous Peoples.
Mi'kmaw Native Friendship Centre Aboriginal Council of Winnipeg UN Special Rapporteur on the right to adequate housing **Source:** UN Special Rapporteur on the Right to Housing et al. (2019)		Create new legislation, mirroring the rights and accountability framework articulated in the NHSA, which recognises culturally relevant housing as a human right for Indigenous people in urban, rural and northern areas.
		Domesticate and implement the United Nations Declaration on the Rights of Indigenous Peoples in Canadian law.
Stakeholder(s)	**Description of Activities**	**Recommendations (if applicable)**
Native Women's Association of Canada (NWAC) **Source:** NWAC (2019)	NWAC works to enhance, promote, and foster the social, economic, cultural and political well-being of First Nations and Métis women within First Nation, Métis and Canadian societies.	Women and children should have historical rights to lands. There are issues with shelters and transitioning houses, particularly related to Child and Family Services (CFS). The focus should be on securing housing to keep families together, rather than an environment where women are afraid to access shelters for fear of CFS taking their children.
		There is a need for single housing and older adult housing.
		Statistics and strategies focused on homelessness should be expanded to include housing insecure people who are living in overcrowded housing or staying with friends and family rather than in shelters or on the street.
		Consideration should be given to women who are dependent on partners for income and housing, as they may be unable to leave their situation in cases of domestic violence.
		Address barriers built into programs that impact success of participants, such access to housing and addictions supports for people actively using substances and wanting to address their addictions. Addictions programing and housing for Indigenous women, Two-Spirit and gender-diverse people actively addicted to substances is a recommendation.
		Address barriers accessing resources and housing by extending service centre hours, reducing paperwork and forms, and addressing long waitlists.

		Address housing issues for incarcerated Indigenous women, Two-Spirit and gender-diverse people, who lose housing when incarcerated and need supports for accessing housing upon release.
		Clients need help to access counselling services and other supports; there is an ongoing need for navigation services and supports.
		Supports and living expenses don't account for participation in community events and cultural activities, which is important in cultivating community ties and a sense of belonging.
		Increase long-term stable funding for supports and services.
		Implement low income and affordable housing across middle-class neighbourhoods and higher-income areas.
Stakeholder(s)	**Description of Activities**	**Recommendations (if applicable)**
Canadian Housing Renewal Association (CHRA) and Indigenous Caucus **Sources:** CHRA and Indigenous Caucus (2018; 2019)	The Indigenous Caucus of the CHRA develops and provides Indigenous policy advice on housing and homelessness, in conjunction with service providers.	Consider development of a national, apolitical "For Indigenous, By Indigenous" collaboration of urban, rural and northern Indigenous housing providers to support consolidated advocacy, sharing best practices, capacity building and training, facilitating access to funding, and planning services.
		Support expansion of successful Provincial-Indigenous housing organization partnership funding models across Canada, learning from approaches of BC Housing and the Aboriginal Housing Management Association, or Ontario Aboriginal Housing Services.
National Inquiry into Missing and Murdered Indigenous Women and Girls **Source:** National Inquiry Into Missing and Murdered Indigenous Women and Girls (2018)	The National Inquiry was mandated to look into and report on the systemic causes of all forms of violence against Indigenous women and girls, including sexual violence. Additionally, the National Inquiry was tasked with examining the underlying social, economic, cultural, institutional, and historical causes that contribute to the ongoing violence and particular vulnerabilities of Indigenous women and girls in Canada.	Address the need for properly resourced initiatives and programming to address root causes of violence against Indigenous women and girls, which includes the need to improve access to safe housing (across the housing spectrum from emergency shelters to secure permanent housing).

Stakeholder(s)	Description of Activities	Recommendations (if applicable)
Urban Aboriginal Strategy: British Columbia Regional Plan 2015–16 to 2017–18 **Source:** Indigenous Services Canada, British Columbia Region (2018)	The Urban Aboriginal Strategy (UAS), now Urban Programming for Indigenous Peoples (UPIP), is designed to assist First Nations (status and non-status), Inuit and Métis living in or transitioning to urban centres.	Support CAP regional affiliates in taking part in UPIP (formerly UAS) engagement planning.
		Leverage, where appropriate, regional findings to: ● further evaluate the quality and extent of adequate housing available in cities to better understand related needs among urban Aboriginal populations; and, ● identify potential partnership or programming opportunities to address these needs.
Metro Vancouver Urban Aboriginal Community (MVAEC) **Source:** Wiebe et al. (2015)	MVAEC works with federal, provincial, municipal, First Nations leadership and the private sector to ensure Aboriginal-specific priorities are identified, and helps to plan, advocate and positively influence outcomes that strengthen the service delivery and policies that impact the Metro Vancouver Urban Aboriginal Community.	Strengthen housing leadership and capacity: ● Improve agency collaboration ● Ensure Aboriginal representation at all levels of decision-making ● Explore funding options with municipalities ● Refine and adapt municipal policies ● Develop a long-term urban Aboriginal Housing Strategy
		Increase access and diversity housing options: ● Address the needs of diverse demographics ● Integrate health and wellness ● Meet immediate social housing need and gather clear data ● Maintain and improve existing housing stock ● Build culturally relevant housing ● Diversify new housing stock
Housing Vancouver Strategy **Source:** City of Vancouver (2018)	The City of Vancouver developed the Housing and Homelessness Strategy (2012–2021) to set out a 10-year plan with the goals of ending street homelessness and providing more affordable housing choices.	Supporting strengthened capacity for Indigenous partners working together towards a Regional 10-Year Indigenous Housing and Wellness Plan
		Commitment to deepening urban Indigenous engagement
		Integrating Indigenous design into housing and wellness projects
		Ensure new housing types incorporate design principles that meet the needs of Vancouver's diverse households and populations
Stakeholder(s)	**Description of Activities**	**Recommendations (if applicable)**
Brock University Fort Erie Native Friendship Centre	Fort Erie Native Friendship Centre, an urban Indigenous services provider, partnered with Brock University to learn	Increase allocations to Indigenous organizations to: ● develop culturally-relevant and community-responsive programming according to the needs of the peoples they serve; and,

Source: Jewell et al. (2018)	more about the employment/unemployment engagement experiences of Indigenous people living in the Fort Erie/Niagara region as well as the wider socio-economic, cultural and historical contexts of those experiences.	● support adequate access to Indigenous focused essential services like housing, childcare, education, and training.
Ontario Aboriginal Housing Services (OAHS) **Source:** OAHS (2016)	OAHS works in partnership with Indigenous housing service providers to design and deliver culturally appropriate supportive and transitional services at a community-based level.	Increased resources invested in higher-risk areas, such as homelessness and supportive/transitional housing, to reflect First Nations, Inuit and Métis people who are part of a higher-risk population.
		Targeted Indigenous resources must result in programs that are designed and delivered by community-based organizations who have demonstrated ability to successfully deliver in a culturally appropriate manner and achieve desired outcomes.
Province of Ontario Indigenous Housing Strategy Engagement Table, including: • Gignul Non-Profit Housing Corporation • Métis Nation of Ontario • Miziwe Biik Development Corp. • Nishnawbe Homes Inc. • Ontario Aboriginal Housing Services • Ontario Federation of Indigenous Friendship Centres • Ontario Native Women's Association • Ontario Non-Profit Housing Association, Aboriginal Committee **Source:** "Indigenous Housing Strategy Engagement Table: A Coordinated Vision for Indigenous Housing" (2016)	The Indigenous Housing Strategy Engagement Table is a collective of Indigenous service delivery organizations and Ministry partners working towards the development of a provincial Indigenous Housing Strategy as part of the Province of Ontario's Long Term Affordable Housing Strategy (LTAHS).	Establishment of a specific, proportional, Federal-Provincial allocation in urban Indigenous housing and homelessness supports that would address the four priority areas of the LTAHS by ● extending existing investments in deep-core rental housing; ● delivering new investments in affordable housing; ● expanding the Indigenous Homeownership Program; and ● establishing an urban Indigenous housing trust.

7.2 Culturally Responsive Housing Service Provision

The following table provides a non-exhaustive overview of the range of culturally responsive Indigenous housing approaches uncovered over the course of the document review. Prioritized approaches include those developed and used by service providers and researchers working in the Indigenous housing sphere in Canada. While some additional consideration was given to the cultural applicability of shelters or transitional housing in an off-reserve Indigenous context, initial findings seemed limited; this may present an opportunity for future qualitative research. Awareness of the range of culturally responsive housing approaches may assist Indigenous organizations and federal agencies working in the Indigenous housing sphere in placing quantitative research in a broader context, as well as in identifying avenues for potential future research.

Table 7.2 — Culturally Responsive Approaches

Indigenous Organization(s) / Researchers	Culturally Responsive Housing Service Provision Approaches
Institute of Urban Studies, University of Winnipeg **Source:** Distasio et al. (2019)	The following principles helped frame and ground an urban Indigenous transitional housing service provision model in Winnipeg in a manner that better reflect local Indigenous realities: ● Providing trauma-informed care that recognizes the effect of systems throughout the history of contact, beginning with the impacts of colonization. ● Recognizing culture and diversity in knowing who you are and the methods used for healing throughout generations, such as: 　○ The importance of reclaiming outlawed cultural practices. The loss of these practices has contributed greatly to the way things are today. 　○ Recognizing people's role in the community and how important they are as a whole person. 　○ Working on supporting people in reclaiming an understanding of their role and importance within a social inclusive framework. ● Being strengths-based and emphasizing that people are on this planet for a purpose and everyone has knowledge, gifts, and wisdom to share. Recognizing that we are all in this together, and: 　○ Being honoured when people let us in to walk with them on their journey to a good life. 　○ Recognizing that people don't need to be "fixed" and that they are not the cause of their own demise. ● Ensuring cooperation and collaboration, and acknowledging that Indigenous people and organizations have the skills and knowledge to work with Indigenous people and that we need to expand and grow additional capacity in the community. This must include: 　○ Staff training and having adequate infrastructure and resources to be able to work with people in environments in which they feel most comfortable and at home

	○ Ensuring adequate and long-term funding addressing the fact that part of the reason why we are where we are is that Indigenous organizations are underfunded with little for long-term funding of projects ○ Having monetary resources to support people on their self-identified healing journey (including, for example, reconciliation with family and the ability to support the journey home) ○ Understanding the need to engage non-Indigenous service providers to build relationships and trust to influence the wider system to understand the people they work with as whole people with histories who have negatively been impacted for generations
Indigenous Organization(s) / Researchers	**Culturally Responsive Housing Service Provision Approaches**
Urban Aboriginal Knowledge Network, Prairie Regional Research Centre and Institute of Urban Studies, University of Winnipeg **Source:** Distasio, Zell, and Snyder (2018)	Culturally responsive **principles** used in an urban Indigenous transitional housing service provision model in Winnipeg include: ● Strengths-based – founded on the belief that all individuals have strengths and resilience to survive the streets, which can be built on and enhanced and used to create a plan tailored to the individual's life circumstances ● Client choice – determines who is significant in their family network, including family and friends, and determines who should be enlisted to support the participant ● Respect for the individual, their family, and their culture ● Respect knowledge of the individual/family. The individual and their family know their own person and family history/dynamics better than anyone else ● Individuals need resources, information, and support to implement their plans. Workers, through intensive involvement (home visits, accompanying the person to resources, etc.), know what resources and information can be made available to facilitate solutions ● Solution-focused – solutions to deal with living situations as they arise, utilizing the principles of harm reduction, with recognition that relapse will be a part of the challenge ● Knowledge and skills transfer is ongoing – workers will do with, not for or to, participants, to provide opportunities to grow in capacity and learn to problem solve
	Culturally responsive **practices** used in an urban Indigenous transitional housing service provision model in Winnipeg include: ● Incorporation of values, traditions and beliefs and traditional approaches to healing ● Contact with Elders and Traditional Healers who provided guidance and support, including providing traditional ceremonies and teachings

	- Providing Indigenous-based supports like having a Cultural Resource Specialist to support the spiritual component of wellbeing - Enabling individuals to regain knowledge of history, traditions, and culture, and to provide opportunities to build a greater sense of self, including traditional supports like: - Opportunities to participate in sharing circles - Opportunities to attend community events and celebrations, ceremonies, medicine picking, and naming ceremonies to obtain their spirit names - Opportunities to learn about the impact of colonization, residential schools, and history on self
Indigenous Organization(s) / Researchers	**Culturally Responsive Housing Service Provision Approaches**
Halton Legal Community Services, funded in part by the Government of Canada's Homelessness Partnering Strategy **Source:** Halton Community Legal Services (2018)	Culturally responsive housing supports identified by Indigenous people with lived homelessness experience in the Halton Region of Ontario include: - Treating the provision of a full suite of services and creating safe spaces for Indigenous persons to access culturally responsive services as a justice issue - Access to traditional methods of healing such as medicinal sage, ceremonies like smudging and access to sweat lodges, healers and Elders - Opportunities to attend local pow wows, drumming workshops, craft workshops and community gardens - Dedicated and accessible Indigenous housing, housing search assistance, supportive services to help retain housing, assistance with first and last month's rent, and information on other community services such as food banks or getting proper identification for rental applications.
McMaster University Canadian Aboriginal AIDS Network All Nations Hope Network Shining Mountain Community Living Services University of Victoria **Source:** Ion et al. (2018)	Culturally responsive Indigenous housing service provision includes: - Creating spaces for ceremonial practices and cultural traditions - Integrating processes for community engagement and consultation - Breaking down silos that exist between health, housing, and urban development stakeholders - Providing wrap around support services from an Indigenous perspective.

Indigenous Organization(s) / Researchers	Culturally Responsive Housing Service Provision Approaches
Aboriginal Housing Management Association (AHMA) **Source:** Leach (2017)	Culturally appropriate solutions to Aboriginal housing and homelessness supports Aboriginal values and traditional practices, with a continuum of services that includes: ● Emergency shelter services ● Structured intake ● Client participation in service delivery ● Mental health, physical health, detox and dental services ● Affordable, supportive transitional and permanent housing ● Culturally appropriate staffing and training ● Peer, community and family supports ● Discharge planning at correctional institutions ● Education, skills development, employment and income support services ● Transportation for accessing employment and services
Alberta Interagency Council on Homelessness PolicyWise for Children & Families **Source:** Yerichuk et al. (2016)	Culturally responsive housing services approaches in the context of Indigenous women fleeing domestic violence include: ● Ensuring that services not only have a clear and deep understanding of Indigenous cultures (both broad understandings and locally-specific), but also integrate ceremony, culture and community into services and programs ● Grounding housing and shelter services in ceremony and traditional teachings, providing access to Elders, and focusing on community healing rather than individual healing ● Ensuring Indigenous organizations provide services, but if not possible, then non-Indigenous workers require intensive cultural training ● Housing and shelter services collaborate with other kinds of services that address substance abuse, legal issues, child welfare interactions, and prevent sexual exploitation ● Focusing on Indigenous values, including family and community ● Focusing on healing rather than a singular focus on justice ● Focusing on resilience rather than trauma and case management ● Ensuring meaningful and sustained cultural sensitivity training for non-Indigenous policy makers as well as service providers ● Providing culturally-based services relating to addictions, counselling, cultural teachings, transportation assistance, employment preparation and life skills training ● Shelter staff demonstrate supportive attitudes, creating an empathetic, non-hierarchical and non-judgmental environment ● Integrating Indigenous culture into shelters through:

	○ Increasing access to Elders ○ Providing more and easier access to friends and family ○ Providing space and time dedicated to ceremony (e.g. smudging and praying) and culturally-based activities ○ Education programs to help build parenting skills be offered not just to the women in the shelters, but to whole families (including fathers), extended families, and community members ○ Embedding shelter services embedded in the larger community or involving community members in designing/implementing services so that women may feel more connected to the community upon leaving the shelter setting. ○ Focus on healing rather than trauma, and take the family and community as the unit for healing ○ Involving men in healing programs - Providing shelter services that are informed by an examination of power differentials and operating on the principle of 'doing no harm' - Providing supports to address racial discrimination by landlords, which can be a significant barrier to Indigenous women's abilities to secure housing
Indigenous Organization(s) / Researchers	**Culturally Responsive Housing Service Provision Approaches**
Metro Vancouver Aboriginal Executive Council (MVAEC) **Source:** Wiebe et al. (2015)	MVAEC used the following principles in the development of an urban Aboriginal housing and wellness strategy for Metro Vancouver for 2015–2020, and which were subsequently used by the City of Vancouver to develop the most recent Metro Vancouver Housing Strategy: - There must be recognition of the historical and ongoing effects of colonization in Canada and the resulting systemic discrimination and oppression experienced by all Aboriginal peoples; - Housing and services for Aboriginal persons must be culturally appropriate and respectful; - Housing and services must include some consideration to the social determinants of health and wellness and respond to the additional needs of residents; - Housing and services must be provided to all Aboriginal persons, regardless of their Constitutional status as an Aboriginal person; - Urban Aboriginal peoples must be provided the opportunity and right to be consulted and engaged in developing housing strategies and plans that directly affect the services they access; - Aboriginal organizations or individuals must either be consulted in the development of, or be responsible for delivering, all Aboriginal housing services; - A clear monitoring and evaluation plan is necessary to provide transparency and accountability at all levels of engagement.

Factor-Inwentash Faculty of Social Work, University of Toronto **Source:** Allan and Sakamoto (2014)	Utilizing an Indigenous approach to transitional housing services provision includes: ● Systems and service providers moving away from an individualistic stance (your health and well-being is *your* problem) and moving towards understanding how the illness and marginalization of some affects the health and well-being of all. ● Recognizing and honouring the agency of Indigenous women in determining their own health and well-being and fostering a system in which help seeking does not equate with being helpless.
Social Planning Research Council of British Columbia and Centre for Native Policy and Research **Source:** McCallum and Isaac (2011)	Successful Indigenous-focused housing and short-term housing provision models featured by SPARC include: ● Flexible housing support based on individual need and capacity ● Emergency Shelter Housing ● Long-term Housing Readiness ● Long-term housing ● Cultural and spiritual activities ● Aboriginal staff ● Aboriginal awareness training ● Individual rights ● Community involvement ● Foundations resting on community consultation ● Multiservice delivery ● Holistic, blended services ● Cultural approach to health and healing ● Aboriginal governance

Canadian Centre for Policy Alternatives - Manitoba.
 	
Source: Brandon and Peters (2014)
	Some of the recommendations provided pertaining to general housing recommendations to better support Indigenous Peoples include:
	
	● Increase access to social housing
	  ○ Continue its investments in social housing to ensure an ongoing gain of net new supply.
	  ○ Work with Indigenous housing providers and other housing providers to create housing units that accommodate the intergenerational and fluid family structures that are common for Indigenous cultures. This many involve larger suites with more than three bedrooms. Flexible design can also play a role in designing appropriate housing.
	  ○ Help foster Indigenous owned and operated housing, including both non-profit and coop housing.
	  ○ New housing should consider the needs of Indigenous residents in terms of temporal flexibility, with suites dedicated for migrants who spend only part of the year off-reserve. Housing programs should consider adopting more flexible requirements such as Ontario

	Aboriginal housing co-op, which allows family members to stay for up to 30 days.
	● Intergovernmental Cooperation
	   ○ The federal government should make transition funding available for Indigenous migrants leaving First Nation reserve communities and who are applying for EIA off-reserve for three months, until they are receiving provincial EIA.
	   ○ Streamline process for obtaining identification documents, between Indigenous Services Canada, Vital Statistics and Provincial Health and for inter-provincial migration as well.
	● Increase Settlement and Transitional Supports
	● Decentralize Transition Services
	   ○ establish transition centres in smaller urban communities that are often the first point of migration for Indigenous migrants.
	   ○ Work with Indigenous communities and First Nations reserves to develop educational materials and resources for increasing urban life skills to be provided to residents before they migrate.
	● Increase Financial Resources Available to Migrants

8.0 Further Research Opportunities

The literature review has generated a wealth of information to guide further research into the relationships (i.e., correlations and causal mechanisms) between housing and the priority areas for the off-reserve Indigenous context in Canada, poorly explo. As a starting point, the literature review has identified the key relationships between housing and education and between housing and health in the general context. The literature review has also identified, albeit to a lesser extent, the relationships between housing and labour market outcomes and potential relationships between housing and Indigenous languages. Most importantly, however, the literature review has identified several gaps in past research that provides opportunities for future research.

This section of the report builds off the results of the literature by suggesting a path forward for further research into the relationships between housing and education, health, labour market outcomes, and Indigenous languages for off-reserve Indigenous people in Canada. In particular, this sector lays the foundation for future research that can answer the following research questions and subquestions:

- What are the relationships (correlations and causal mechanisms) between housing and the priority areas for off-reserve Indigenous people and households in Canada?
- Do the relationships between housing and the priority areas for off-reserve Indigenous people and households in Canada match the results of the past research examined within the literature review?
- What institutional, social, demographic, geographic, and neighbourhood factors explain the differences in the relationships between housing and the priority areas for off-reserve Indigenous people and households in Canada in comparison to the results of past research examined within the literature review?

8.1 Summary of Research Opportunities Identified by Literature Review

By and large, the literature review has identified that there is a gap in our understanding of the correlations between housing and several socio-economic outcomes within the Indigenous, and particularly the off-reserve Indigenous, contexts in Canada. This call for additional research pertaining to these relationships.

More broadly, the literature did not distinguish between urban, rural, and remote off-reserve housing experiences and their interactions with the four priority areas. These distinctions were either not mentioned, or the literature focused on urban experiences exclusively. Consequently, additional research is needed based on the assumption that the correlations between housing and the priority areas vary based on geographical location.

Section 8.2 proposes early next steps for further research focused on the off-reserve Indigenous context, and draws from the literature review and Canadian datasets.

With regards to the general population, the literature review has identified several additional gaps that provide opportunities for future research into the relationships between housing and the priority areas. These opportunities are summarized here by each priority area, in order of feasibility within a Canadian context and existing Canadian datasets.

Education

1. Exploring how household socioeconomic characteristics and capacities mediate the relationship between housing and education (Steele and Kreda 2017)
2. Exploring how neighbourhood conditions mediate the relationship between housing and education, like high school completion rates (Brackertz and Wilkinson 2017; Steele and Kreda 2017)
3. Understanding how residential stability and frequency of moves affects education, like primary school attendance rates or high school completion rates (Lien, Wu, and Lin 2008; Turner and Thompson 2015)

Health

1. Exploring how tenure mediates the relationship between housing and physical and mental health outcomes (Kolahdooz et al. 2015; Steele and Kreda 2017).
2. Exploring how household socioeconomic characteristics mediate the relationship between housing and health outcomes (Steele and Kreda 2017).
3. Understanding the relationship between housing affordability and physical and mental health outcomes, with a potential focus on homelessness (S. W. Hwang 2001)
4. Understanding what role social support may play in housing tenure type, crowding or adequacy (Belanger, Weasel Head, and Awosoga 2012; Hamdullahpur, Jacobs, and Gill 2017)

Labour Market Outcomes

1. Examining if there is a possible direct relationship between crowding and structural problems and employment prospects after controlling for both health and education (Stephens 2010)
2. Exploring how housing location mediates the relationship between housing and labour market outcomes, like participation and employment (Steele and Kreda 2017)
3. Exploring if and how housing assistance enables increased employment, and if there are intervening factors in this relationship, like location inequality (Bridge et al. 2003)
4. Exploring the applicability of SLM, particularly dual market theory, to an Indigenous context and accounting for tenure type (Stephens 2010)
5. For both urban Indigenous renters and homeowners, exploring the socio-economic reasons leading to core housing need (Belanger, Weasel Head, and Awosoga 2012)
6. Exploring whether low labour market and educational outcomes are impeding urban Indigenous homeownership (Belanger, Weasel Head, and Awosoga 2012)

Indigenous Languages

1. Exploring the links between Indigenous languages (learning or speaking) and the impacts of suitable housing (Ball 2009; Duff and Li 2009)
2. Understanding if and how household size and composition may be associated with use of an Indigenous language in the home and other language outcomes (Findlay and Kohen 2012; Guèvremont and Kohen 2012)
3. Exploring the impact of urban neighbourhood education level on Indigenous languages (learning or speaking) and related languages outcomes (Findlay and Kohen 2012)

8.2 Econometric Approaches

To engage in further research focused on housing and the four priority areas in the off-reserve Indigenous context, we propose that a correlation analysis is the best first step. While not as useful as causal analysis for policy evaluation and development, correlations still allow for the testing of outcomes, both direct and indirect, identified in, and supported by past research.

Currently, little is known about the strength of the relationships between housing and education, health, labour market outcomes, and Indigenous languages, if present, in the off-reserve Indigenous context in Canada. As a result, correlation analysis will fill many of the gaps in our knowledge that were clearly identified within the literature review.

Our review of the literature uncovered several statistical and econometric approaches that have been used to understand correlations between housing and socio-economic outcomes. These approaches range from the application of basic statistical techniques to more intricate econometric techniques.

Several researchers have successfully employed basic statistical techniques to reveal valuable insights into the correlations between housing and socio-economic outcomes. Hamdullahpur, Jacobs and Gill (2017) used t-tests and ANOVAs for continuous variables and Chi-square tests for categorical variables to make systematic comparisons in mental health outcomes between Indigenous and non-Indigenous women in unstable housing.

In many cases however, the multidimensional relationships between housing and socio-economic outcomes, and between the socio-economic outcomes themselves, needs to be accounted for. Moving beyond bivariate analysis, Green and Hendershott (2001) used multivariate regression to test the Oswald hypothesis that homeowners are less mobile than private-sector renters, and are less willing to move to jobs when they become unemployed. Findlay and Kohen (2012), likewise, used multivariate regression to explore the relationship between housing and Indigenous languages in an off-reserve context.

Another set of authors utilize principal component analysis (PCA) to first construct indexes of background characteristics, and then use those indexes within an econometric framework to explore socio-economic outcomes. Baker et al. (2017), for instance, regressed health outcomes on an Index of Health Insults (IHI), which bundles together several housing domains, including

affordability, security, quality of dwelling, quality of residential area, and access and services and support. Baker et al. use PCA to set an appropriate weighting scheme to dimensions of the IHI.[7]

Probability analysis is also used. Lien, Wu, and Lin (2008) applied a linear probability model to explore the relationship between housing tenure and chance of high school and college enrollment in the Taiwanese context. Green and White (1997) employed a probit model to explain children's outcomes as a function of whether their parents own versus rent.

Baker et al. (2017) used a logit model to investigate the relationship between self-rated health (scaled from 0 to 100) and their Index of Health Insults (IHI). Stephens (2010) and Thapa, Shah, and Ahmad (2012), similarly, applied a logit model to examine the effects of housing on a set of labour market outcomes. Findlay and Kohen (2012) also employ a logit model.

The past literature often recognized a need to adjust for the endogeneity of certain variables and to correct for selection bias, especially housing. These additional considerations have the advantage of allowing for causal interpretations.

The challenge with causal analysis in the case of housing is due, in part, to the difficulty in controlling for the extensive observed and unobservable variables at play. As an example, the past literature indicates several factors that are likely embedded within the neighbourhood effect. Steele and Kreda (2017) list several neighbourhood characteristics that influence (child) education, health, and labour market outcomes, including crime, safety, schools, and employment opportunities. Chandler and Laronde (2016) and Hallett, Chandler, and Laronde (2007), likewise, present several neighbourhood or community characteristics that influence the prevalence of Indigenous language speakers.

Drawing from the policy realm, CMHC's Causality Chain (Pomeroy and Marquis-Bissonnette 2016) in Figure 6.2.3 illustrates the challenge well. Between the housing intervention and the outcome of interest sit several intermediate effects and intervening or mediating factors, with each having the potential to magnify or eliminate the impact on the outcome of interest.

Lien, Wu, and Lin (2008) used an Instrumental Variable (IV) approach to account for any endogeneity between the number of siblings and child's education. Green and White (1997) also used IV, although in this case it serves to correct for selection bias, where the relative cost of owning versus renting was used as an instrument for tenure choice. Building off of Green and White, Haurin, Parcel, and Haurin (2002) also employed IV.

Random and fixed effects models have also been used in past research. Haurin, Parcel, and Haurin (2002) used a random effects model, which allowed them to control for unobserved household- and child-specific factors, while estimating the impact of homeownership on child outcomes. Baker, Bentley and Mason (2013) applied both random and fixed effects models in seeking to understand the strength of the links between tenure type and mental health.

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[7] Biddle (2009) provides another example of the use of PCA within an Indigenous context.

While the past research demonstrates the strength of quasi-experimental approaches in housing (e.g., IV and fixed effects models) (Ma'rof and Redzuan 2012), formal experimental designs and randomized control trials (RCT) remain underutilized. One systematic review of the relationship between buildings and health found only three relevant RCT studies, with each focused on the impact of heating and ventilation on the health and wellbeing of children (Ige et al. 2019).

8.3 Relevant Indicators

Table 8.3.1 lists the range and types of indicators used throughout the literature reviewed to measure outcomes and understand interactions and correlations in each of the four priority areas. Presenting these indicators points to relevant indicators needed to support further research in an off-reserve Indigenous context. The relevant indicators, in turn, points to the datasets required for further research, which is explored in the following section.

Table 8.3.1 — Indicators used in the literature

Potential Priority Area	Indicators
Housing	Suitability
	Crowding
	Adequacy
	Affordability
	Ownership
	Stability
Education	Grade average on last report card, whether the student ever repeated a grade, whether the student was receiving additional help or tutoring (not including help from family members), and whether the student was happy at school.
	Standardized test scores in math and reading
	High school dropout rates, high school graduation rates, college attendance, and college degree attainment
	Youth is still in school or has graduated from high school

	Individual graduated from high school by age 19 (Yes / No) and the individual's maximum level of education achieved by age 25
	Parental perceptions of how well their child is doing in school (from "very well" to "very poorly")
Potential Priority Area	**Indicators**
Health	Physical, psychological, social, and spiritual well-being
	Proximal SDH including health behaviours, physical environments (like housing), employment and income, education and food security
	Intermediate SDH including health care systems, education systems, community infrastructure, resources and capacities, environmental stewardship and cultural continuity
	Distal SDH include colonialism (like residential school attendance), racism and social exclusion, and self-determination
	Incidence or diagnosis of chronic diseases and infections, like respiratory illness, stomach infections, childhood meningitis and tuberculosis, and environmental factors like exposure to secondhand smoke
	Incidence or diagnosis of tuberculosis, respiratory illnesses, asthma, gastrointestinal illnesses and injury in an Indigenous context
	Self-reported general health
	Self-reported mental health
	Incidence of diagnosed or self-reported mental disorders, depression, anxiety, suicidal ideation, and stress

	Self-reported absence of children from school, or adults from work
	Individual assessment tools like the Addiction Severity Index (ASI), Beck Depression Inventory (BDI), and Child Abuse and Trauma Scale (CATS)
Labour	Not in the Labour Force
	Employment rate
	Unemployment rate
	Wages
Indigenous Languages	Parent-reported indicator of children's expressive language
	Parent-reported indicator of children's mutual understanding of language
	Parent-reported indicator of children's storytelling
	Presence of any speech or language difficulties

8.4 Relevant Datasets

The Census and APS are both rich sources of information on Indigenous peoples in Canada. This subsection explores these datasets in reference to the relevant indicators noted in the preceding subsection.

8.4.1 Census of Population

The Census contains a wealth of data to support further research. It covers age, gender, income, labour force participation, education attainment, school attendance, geographic residence, and geographic mobility. In addition, the Census includes variables specifically on Indigenous peoples, such as Aboriginal identity, registration status, Indigenous languages, and on-reserve status.

The Census represents a cross-sectional dataset that can be pooled to generate a time series dataset for each census subdivision across the country.[8] In addition, Census records can be linked over time, under special permission, to generate a longitudinal dataset. Both configurations would allow for fixed effects analysis, albeit with different units of analysis.

The Census also includes variables on household composition and dwellings. Dwelling characteristics are "the physical attributes of the living quarters occupied by the household", and include:

- Number of rooms
- Number of bedrooms
- Period of construction
- Dwelling condition
- Condominium status
- Value (owner estimated) of dwelling

Household characteristics are "characteristics of the person or group of persons occupying the private dwelling." Some information on household maintainers is also useful. Household include:

- Household type
- Household size
- Household living arrangements
- Household maintainer
- Household income
- Shelter Cost
- Tenure

The 2016 Census also enables the examination of core housing need, housing adequacy, suitability, and affordability, all priority areas identified by CAP's stakeholders and constituency. Any correlations-related analysis related to core housing need and housing conditions of off-reserve Indigenous households could be augmented and informed by recent reports and analyses prepared by CMHC (Wali 2019; CMHC 2011). Any potential additional affordability assessments for Indigenous households off-reserve to augment CMHC's findings could only be assessed when the shelter-cost-to-income-ratio (STIR) is applicable.

The statistical units related to housing in the 2016 Census are *Private dwelling*, *Collective dwelling*, and *Usual place of residence*. While collective dwelling includes a category for Shelter, (as in a homeless shelter or similar, very limited data are available for collective dwellings. The small proportion of the total population enumerated in collective dwellings may limit focused data analysis related to shelters, but is still instructive, especially for seeking to better understand emergency shelter and transitional housing needs.

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[8] Although the sampling strategy used for the 2011 National Household Survey (NHS) differs from the 2006 Census and the 2016 Census, the NHS data can be adjusted econometrically to allow for the pooling of data.

One limitation of the Census is that it contains very limited health data. An alternate data source would be required to investigate the relationship between housing and health. An additional limitation of the Census is that it may not capture data on all Indigenous peoples in Canada, as enumeration on some reserves was either not permitted or was interrupted before it could be completed (Statistics Canada 2017a). Given that CAP's constituency is off-reserve, this may only impact data completeness in the case of those Indigenous people who moved from a non-enumerated reserve to an urban or off-reserve area. Further, Statistics Canada noted that the number of incompletely enumerated reserves went down from 31 in the 2011 Census to 14 in the 2016 Census (2017a), representing a potential increase in the number of enumerated Indigenous dwellings. Additionally, a community-based research partnership in 2015-2016 using novel respondent-driven sampling (RDS) approaches found that the 2011 Census "underestimated the size of the Indigenous population in Toronto by a factor of 2 to 4 (Rotondi et al. 2017, 1)." Mitigating this underrepresentation of urban Indigenous people across Canada in more recent Census data might entail a separate, larger-scale RDS-based enumeration project. In absence of a more detailed enumeration of the urban Indigenous population, Census data can still serve for potential data analysis and research, provided findings are reported as potentially underestimating magnitude. One additional potential element of the Census that might be considered a limitation if conducting research in the homelessness sphere is that the Census counts usual residents of private dwelling, collective dwelling, and usual place of residence (Statistics Canada 2017b). For homelessness-specific research, supplementary Statistics Canada data sources that capture homelessness-related experiences might be considered, like the 2014 General Social Survey (GSS) on Canadians' Safety (Victimization) (Rodrigue 2016). Additionally, given that Statistics Canada does not collect data on the current homeless population (Rodrigue 2016), a first step of any homelessness-related research project might entail exploring the range of Point-in-Time homelessness counts conducted by municipalities across the country to gauge applicability, especially considering large enough Indigenous sample sizes upon which to base research.

8.4.2 Aboriginal Population Survey

The Aboriginal Peoples Survey (APS) is a national survey of First Nations people living off reserve, Métis and Inuit aged 15 years and over. The 2017 APS represents the fifth cycle of the survey. This cycle focuses on transferable skills, practical training, use of information technology, Indigenous language attainment, and participation in the economy.

The 2017 APS collected unique and detailed data on employment, education, and health which are not available from any other source. For example, although the 2016 Census collected data on certain aspects of labour market participation, the 2017 APS addresses additional topics such as job satisfaction, multiple employment, past job attachment, and willingness to move to improve career opportunities.

Using the 2017 APS could enable a deeper understanding of Aboriginal self-reported satisfaction with and state of existing housing, as well as access to subsidized housing and wait lists, all priority items identified by CAP in the off-reserve Indigenous context..

As with the Census, each APS (e.g., 2006, 2012, 2017) represents a cross-sectional dataset that can be pooled to generate a time series dataset for each off-reserve census subdivision across the country.[9] In addition, it may be possible to link APS records over time, under special permission, to generate a longitudinal dataset. Again, both configurations would allow for fixed effects analysis, albeit with different units of analysis.

2017 APS Housing questions of particular interest could include:

- How would you rate your level of satisfaction with your housing conditions?
- What are the reasons you are dissatisfied with your housing conditions?
- Is this dwelling in need of any repairs?
- How many rooms are there in this dwelling?
- Is this dwelling owned or rented?
- Is this dwelling subsidized?
- Are you on a waiting list for subsidized housing?
- How long have you been waiting for subsidized housing?

2017 APS survey sections and questions that may be applicable for examining correlations between housing and a range of priority areas are included in Appendix A3.

Table 8.4.2 lists indicators uncovered through a cursory exploration of emerging methodologies currently under development in partnership with some First Nations in western and northern Canada. Some of these indicators may be applicable in an off-reserve context as well. Each of the indicators are attainable under either the Census or APS.

Table 8.4.2 — Indicators Feasible in a Canadian context

Potential Priority Area	Potential Indicators
Housing	Suitability
	Crowding
	Adequacy
	Affordability
	Ownership
Education	Secondary education rate
	Post-secondary education rate
Health	Single parent household

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[9] Some stratification of the data is required to adjust for the different sampling strategy used for the 2011 NHS.

	Oral health
	Addiction
	Food security
Labour	Employment rate
	Occupational skill levels
Indigenous Languages	Knowledge of Indigenous Languages
	Indigenous Language speakers
	Participation in cultural activities

8.4.3 Additional Data Sources

Several other national surveys provide additional data sources to complement the Census and APS. These include the Aboriginal Children's Survey (ACS), the National Longitudinal Survey of Children and Youth (NLSCY), and the Canadian Community Household Survey (CCHS).

8.5 Additional Priority Areas

Further to the four priority areas explored in depth in section 6, we note that additional socio-economic outcomes that interact with housing bear further investigation, especially in the Indigenous context. These additional socio-economic outcomes include:

- Impacts of disconnection from culture, practices, traditions, spirituality, community, family, and the land (Thistle 2017)
- Involvement with the criminal justice system and police (Kauppi and Pallard 2016)
- Racism and access to rental housing or homeownership (Belanger, Weasel Head, and Awosoga 2012; McCallum and Isaac 2011; OFIFC 2018; Indigenous Services Canada, British Columbia Region 2018)
- Housing stability, tenure changes, relocation frequency
- Income
- Poverty (Baker, Bentley, and Mason 2013; City of Vancouver 2018; Green 2013; Indigenous Services Canada, British Columbia Region 2018; Ma'rof and Redzuan 2012; NCCIH 2017b)
- Homelessness, including intergenerational homelessness (Bodor et al. 2011)

- Intergenerational impacts and present-day trauma related to colonization (Bodor et al. 2011; Zupancic and Westmacott 2016)

As intriguing and necessary as it is to explore all of these correlations, each priority area could warrant a separate research project unto itself, depending on the scope and depth required to understand and test the correlation.

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Appendices

A1. Research Questions

Eight research questions were initially proposed as guides for the literature and document review. All but one (#5 below) are addressed in this report. Question #5 would warrant its own separate study, and could form the basis of a potential future data analysis project. The originally-proposed literature review research questions are:

1. What is the current housing situation for off-reserve Aboriginal people across Canada based on most recent data, including affordability, adequacy, suitability, accessibility, satisfaction, subsidized housing access, crowdedness, tenure, core housing need, and shelter-cost-to-income-ratio, among other dimensions?
2. How can existing or emerging methods developed in other Aboriginal contexts for identifying and developing indicators for priority areas of Health, Education, Housing, Aboriginal Languages and Labour Force Participation be modified to develop indicators for priority areas identified by CAP as relevant to Aboriginal people living off-reserve?
3. What are the gaps between off-reserve Aboriginal people and non-Aboriginal people in each of the areas of Health, Education, Housing, Languages, and Labour Force Participation, based on the types of potential indicators identified by CAP in each priority area?
4. What are the direct and indirect correlations or causations between housing and socio-economic outcomes, broadly, and, where evidence exists in the literature, for Aboriginal people specifically, related to: education participation, attendance and attainment; labour market participation; and income, among other outcomes like Health, Education and Aboriginal Languages and any other focused dimensions suggested in the literature and that have been previously explored with data?
5. Are these direct and indirect correlations reflected in most recent Census data, and potentially other data, related to off-reserve Aboriginal people and housing in Canada?
6. What are some initial recommendations flowing from these data-driven findings, potentially including recommendations related to adequacy and availability of housing stock off-reserve?
7. What is the range of potentially applicable and published recommendations from organizations, agencies, providers, tables, bodies and municipalities across the off-reserve Aboriginal housing, short-term shelter and social housing landscape, especially related to culturally responsive and holistic approaches (like socially inclusive housing and a housing continuum), increasing housing stock, housing affordability, and addressing the off-reserve population in core housing need?
8. What are some potential next steps for further data-driven research to deepen understanding of the off-reserve Aboriginal housing gap, needs and potential solutions?

A2. Search Terms

The following search terms were used to identify academic literature through JSTOR, ResearchGate, and Google Scholar. The search terms related to stakeholder recommendations and culturally appropriate housing approaches were applied in Google.

Table A2.1 — General Correlations

Education	● Homeownership and education outcomes correlation ● Home ownership and education outcomes correlation ● Housing and education outcomes correlation
Health	● Homeownership and health outcomes correlation ● Housing and health outcomes correlation
Labour Force Participation	● Homeownership and labour market outcomes correlation ● Housing and labour market outcomes correlation ● Homeownership and employment correlation ● Housing and employment correlation ● Homeownership and employment outcomes correlation ● Housing and labour force participation

Table A2.2 — Correlations in an Indigenous Context

Education	● Housing and education outcomes correlation Indigenous
Health	● Housing and health outcomes correlation Indigenous ● Indigenous housing socio-economic outcomes correlation
Labour Force Participation	● Housing and labour market outcomes correlation Indigenous ● Housing and employment correlation Indigenous ● Housing and employment outcomes correlation Indigenous ● Housing and labour force participation Indigenous
Language	● Housing and Indigenous language
General	● Housing first literature review Indigenous ● Indigenous housing and homelessness ESDC ● Indigenous housing and homelessness Indigenous Services Canada ● Indigenous housing and homelessness CMHC ● Indigenous housing and homelessness Public Safety ● Indigenous housing and homelessness Infrastructure Canada

Table A2.3 — Stakeholder Recommendations and Culturally Appropriate Housing Approaches

- Indigenous housing culturally responsive
- Indigenous housing approaches Canada
- Socially inclusive housing indigenous Canada
- Cultural appropriateness indigenous homeless shelters
- Cultural appropriateness emergency shelters Indigenous
- Cultural appropriateness transition shelters Indigenous

A3. Relevant Aboriginal Peoples Survey Questions

Based on the range of correlations, variables, and potentially confounding factors identified in the literature in both a general and Indigenous context, the following areas, sections and questions from the 2017 APS will inform potential future research.

Table A3.1 — Relevant 2017 APS Questions

Area	2017 APS Sections	2017 APS Questions
Education	Residential School (RS)	RS_Q10A, RSQ_Q10B, RSQ10C, TS_Q10D
	Elementary And High School (EHS)	EHS_Q05, EHS_Q10, EHS_Q15, EHS_Q20, EHS_Q25
	Postsecondary Education Screener (PSS)	PSS_Q05, PSS_Q15
	Postsecondary Credentials (PSC)	PSC_Q05
	Current Postsecondary Attendance (CPSA)	CPSA_Q05. CPSA_Q10, CPSA_Q15
	Some Postsecondary Education (SPS)	SPS_Q20

	Education Not Taken (EDNT)	EDNT_Q05, ENDT_Q10, ENDT_Q15
	Plans For Further Education (NFED)	NFED_Q05, NFED_Q10, NFED_Q20, NFED_Q25
Health	General Health 1 (GH1)	GMH_Q05
	General Mental Health (GMH)	GMH_Q05
	Chronic Conditions (CC)	CC_Q05, CC_Q10, CC_Q15, CC_Q25, CC_Q30, CC_Q65, CC_Q70, CC_Q75, CC_Q80, CC_Q85
	Injuries (INJ)	INJ_Q05, INJ_Q10
	Eating Habits (EH)	EH_Q05, EH_Q10
	Smoking (SMK)	SMK_Q10, SMK_Q20
	Alcohol Use (ALC)	ALC_Q05, ALC_Q10, ALC_Q15
	Drug Use (DU)	DU_Q05, DU_Q10, DU_Q15
	Suicide (SU)	SU_Q05, SU_Q10
Labour Force participation	Labour Market Activities Minimal (LMAM)	LMAM_Q01, LMAM_Q02, LMAM_Q03

	Labour Force Status (LMA2)	LMA2_Q05, LMA2_Q06, LMA2_Q08, LMA2_Q09
	Class Of Worker (LMA3)	LMA3_Q10
	Job Tenure (JT)	JT_Q05, JT_Q10, JT_Q15, JT_Q20
	Industry (LMA4)	LMA4_Q11, LMA4_Q12, LMA4_Q13
	Occupation (LMA5)	LMA5_Q14
	Usual Hours Of Work (LMA6)	LMA6_Q16
	Part-Time Employment (PT)	PT_Q05
	Permanent Work (PW)	PW_Q05, PW_Q10
	Job Satisfaction (JS)	JS_Q05, JS_Q10
	Labour Market Attachment (LA)	LA_Q05, LA_Q15, LA_Q20, LA_Q25, LA_Q30
	Labour Mobility (LM)	LM_Q05, LM_Q10, LM_Q15, LM_Q20
	Other Labour Activities (OLA)	OLA_Q05, OLA_Q15, OLA_Q20, OLA_Q30, OLA_Q35, OLA_Q45, OLA_Q50, OLA_Q60
Language	Aboriginal Language (LAN)	LAN_Q05,LAN_Q15, LAN_Q20, LAN_Q25, LAN_Q30, LAN_Q35, LAN_Q40, LAN_Q50(A, B, C, D, E, F)
Income	Source of Personal Income (SPI)	SPI_Q05, SPI_Q10,
	Total Personal Income (TPI)	TPI_Q05, TPI_Q15, TPI_Q20
Basic Needs	Food Security (FS)	FS_Q05, FS_Q10, FS_Q30
	Basic Needs (BN)	BN_Q05

Mobility and connection	Mobility (MOB)	MOB_Q05, MOB_Q10, MOB_Q15, MOB_Q20, MOB_Q25, MOB_Q30, MOB_Q40
	Community Involvement (CI)	CI_Q05, CI_Q10
	Sense Of Belonging (SB)	SB_Q05, SB_Q10, SB_Q15, SB_Q20, SB_Q25
Household composition	Household Composition (HC)	HC_Q05, HC_Q10, HC_Q15

Source: Statistics Canada (2016c)

A4. Select Annotated Bibliography

The following descriptive annotated bibliography covers those works that either directly explored or tested the correlations between housing and the four priority areas in an Indigenous context. While these are predominantly Canadian studies, applicable Australian and American studies are also included.

Bougie, Evelyne and Sacha Senécal. 2010. "Registered Indian Children's School Success and Intergenerational Effects of Residential Schooling in Canada." *International Indigenous Policy Journal* 1 (1): 43

Using the 2006 Aboriginal Peoples Survey, this study investigates factors associated with school success (as perceived by parents) among off-reserve Registered Indian children aged 6 to 14 in Canada. Holding other factors constant, Registered Indian children were more likely to be doing well at school if they were living in households with high income, were living in adequately maintained dwellings, or spoke an Aboriginal language at home. Boys and older children, on the other hand, were less likely to be doing well at school, as were children who were living in larger households, experienced food insecurity, or had parents who attended residential school. Mediation analyses revealed that the negative intergenerational effect of parental residential schooling on children's school success was partially attributable to household characteristics or economic status. Indeed, former residential school attendees were found to be more likely to live in households with a lower income, live in larger households, and report that their family had experienced food insecurity. These characteristics were, in turn, found to be negatively associated with children's school success.

Brackertz, Nicola, and Alex Wilkinson. 2017. "Research Synthesis of Social and Economic Outcomes of Good Housing for Aboriginal and Torres Strait Islander People." Commonwealth of Australia

This is a research synthesis of the available evidence in Australia, since 2005, that demonstrates the extent to which housing can facilitate non-shelter outcomes (health, education, economic development, safety) for Indigenous individuals and communities, especially (but not limited to) remote Indigenous communities. Overall, the synthesis finds that there is a pressing need for data collection and structured research and evaluation on the links between Indigenous housing and non-shelter outcomes.

Findlay, Leanne C., and Dafna E. Kohen. 2012. "Neighbourhood Factors and Language Outcomes of First Nations Preschoolers Living Off Reserve: Findings from the Aboriginal Children's Survey." *International Indigenous Policy Journal* 3 (2)

This study examines the effects of neighborhood structural and organization features, as well as the mediation of these effects, on the language outcomes of First Nations children aged 2-5 living off reserve. They used data from the Aboriginal Children's Survey. Both neighborhood structure and neighborhood organization were important for language outcomes. In addition, mediation effects were shown, suggesting that family-level as well as neighborhood structural variables are particularly important for the language outcomes of off-reserve First Nation children.

Gonzalez, Miigis B., Benjamin D. Aronson, Sidnee Kellar, Melissa L. Walls, and Brenna L. Greenfield. 2018. "Language as a Facilitator of Cultural Connection." *ab-Original* 1 (2): 176–194

This study explores language as a unique aspect of culture through its relationship to other demographic and cultural variables in American Indian adults drawn from two Ojibwe communities in the United States. They compared language proficiency by demographic groups to examine relationships between language and culture. They found that a higher proportion of those living on reservation lands could use the Ojibwe language, and fluent speakers were most notably sixty-five years of age and older. Regarding culture, they found that those with greater participation and value belief in cultural activities reported greater language proficiency.

Hamdullahpur, Kevin, Kahá:wi J. Jacobs, and Kathryn J. Gill. 2017. "A Comparison of Socioeconomic Status and Mental Health among Inner-City Aboriginal and Non-Aboriginal Women." *International Journal of Circumpolar Health* 76 (1): 1340693

This study explored the mental and physical health of Aboriginal and non-Aboriginal women accessing social services agencies and shelters in the Montreal region. They found that the lifetime rate of physical abuse was significantly higher in Aboriginal women, and they were more likely to have been victims of violence or crime in the past year. Aboriginal women were also more likely to have previously received treatment for a drug

or alcohol problem. Regardless of ethnicity, lifetime rates of anxiety, depression and suicide attempts were extremely high. Opportunities for future research include exploring the effects of individual resources (e.g. social support, family relations) and cultural beliefs on women's ability to cope with the stress of living with adverse events in urban areas.

Stephens, Benjamin J. 2010. "The Determinants of Labour Force Status among Indigenous Australians." *Australian Journal of Labour Economics* 13 (3): 287–312

Recognizing that Indigenous Australians experience disadvantages that can limit their engagement in the labour market, this paper explores the forces which influence the labour market status of Indigenous people. The author models labour force status as a function of factors relating to geography, demographic characteristics, education, health, culture, crime and housing issues. The results demonstrate the relevance of a wide range of factors in determining the probability of employment among Indigenous people, including housing and cultural engagement.

Turner, Annie, and Amanda Thompson. 2015. "School Mobility and Educational Outcomes of Off-Reserve First Nations Students." Statistics Canada.

The aim of this paper is to understand how changing schools for reasons other than regular progression is related to the academic outcomes of off-reserve First Nations students. Using the 2012 Aboriginal Peoples Survey, the authors compare characteristics of movers and non-movers, like student, family and school support characteristics. They also compare school outcomes between movers and non-movers to determine if having one "non-regular" progression school move was negatively related to academic success. They found that movers in elementary school were more likely than non-movers to need or receive help because of behavioural/emotional problems. Movers in high school were more likely to live in lower-income households, to have parents with less than high school graduation, and less likely to have parents who were involved in school activities. Those who had one non-regular progression move were more likely than those who did not change schools to have repeated a grade, even when controlling for other factors.