

# OUR HEALTH COUNTS

## URBAN INDIGENOUS HEALTH DATABASE PROJECT



Tungasuvvingat Inuit  
and  
Well Living House Action Research Centre for Indigenous Infant,  
Child and Family Health and Wellbeing at the  
Centre for Urban Health Solutions,  
St. Michael's Hospital.

Project completed with the assistance of Inuit community members  
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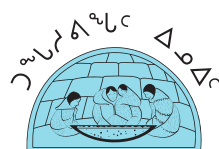
Tungasuvvingat would like to acknowledge Drs. Janet Smylie and  
Michelle Firestone as the lead report authors.

July 2017



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URBAN INDIGENOUS  
HEALTH DATABASE  
PROJECT



Tungasuvvingat Inuit

# OUR HEALTH COUNTS

GOVERNING COUNCIL



the Métis  
Nation of  
Ontario



Tungasuvvingat Inuit



## St. Michael's

Inspired Care.  
Inspiring Science.

We gratefully acknowledge the financial contributions to this project from the Ministry of Health and Long-Term Care, Ontario Federation of Indigenous Friendship Centres and St. Michael's Hospital



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We would like to acknowledge the Canadian Institutes of Health Research (CIHR) who funded Dr. Janet Smylie with a New Investigators Award during the time she worked on this study.

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KEY FINDINGS

## KEY FINDINGS

### EXECUTIVE SUMMARY

Inuit in Ottawa have experienced very high levels of historical trauma due to colonial policies such as residential schools and forced relocation. Current discriminatory practices, including racism in social services, health care and high levels of child protection agency involvement contribute to an ongoing cycle of poverty and trauma. Additional barriers to health care, documented in this report, contribute to a high burden of chronic disease and physical and emotional pain.

These factors both help to contextualize the Our Health Counts findings, and to contribute to what is likely a significant under-reporting of hardship, from physical pain to socio-economic conditions. In addition, there may be cultural norms that discourage direct verbal expression of complaint. As a result, it is likely findings related to rates of chronic disease, mental health and socio-economic hardships are underestimated.

### ABOUT THE STUDY: WHAT IS OUR HEALTH COUNTS?

- There is a lack of information about the size, health, and wellbeing of First Nations, Inuit and Métis populations living in urban areas.
- The Our Health Counts (OHC) study of Inuit in Ottawa was part of a larger project to develop a baseline population health database for urban Indigenous people living in Ontario. OHC also took place for First Nations in Hamilton and Métis in Ottawa.
- Data collection for the Ottawa Inuit arm of the study took place in 2010.
- The OHC study of Inuit in Ottawa was led by Tungasuvvingat Inuit, who worked with a research team led by Indigenous physician, Dr. Janet Smylie from the Well Living House at the Centre for Urban Health Solutions at St. Michael's Hospital in Toronto.
- Our Health Counts was funded by the Ontario Federation of Indigenous Friendship Centres, the Ministry of Health and Long-Term Care Indigenous Health Transition Fund, and the Centre for Urban Health Solutions at St. Michael's Hospital.

### WHAT IS INCLUDED IN THIS REPORT?

- This report focuses on health, wellbeing and access to health services for the adult Inuit population in Ottawa. The community partner for this portion of the Our Health Counts study was Tungasuvvingat Inuit (TI), an organization offering Inuit-specific social support, cultural activities, counselling and crisis interventions across Ontario. TI's work is grounded in the traditional principles of Inuit Qaujimajatuqangit (IQ), the Inuit way of 'knowing.'
- This report shares data from 345 Inuit adults over the age of 18. Due to the methods we used to find participants for the study, called 'Respondent Driven Sampling,' we know that the experiences of these 345 adults can be taken to represent those of the overall adult Inuit population in Ottawa.



This report draws on:

- **Stakeholder input into survey design.** We used a method called ‘concept mapping’ to work with community organizations to collectively generate survey questions.
- **Surveys given to 345 participants.** The survey team consisted of one site coordinator and five survey administrators recruited by and from the local Inuit community. Survey administrators were able to conduct interviews in both English and Inuktitut.
- **Provincial health information** such as Emergency Room admissions and cancer screening data.

## HIGHLIGHTED FINDINGS

### 1) **Large, youthful and majority permanent resident Inuit population with close connections and strong retention of Inuktitut.**

The Inuit adult population in Ottawa:

- The OHC Ottawa Inuit study confirmed Inuit population in Ottawa is four times larger than the Statistics Canada estimate.
- Is both youthful and intergenerational, with more than 40 per cent of adults under the age of 35.
- Is established and long-term. More than half (56 per cent) of Inuit adults in Ottawa report Ottawa as their permanent residence.
- Includes a significant number of people (44 per cent) who are in Ottawa temporarily to access health care, education, employment and other programs.
- Has a strong retention of the Inuktitut language. Twenty-four per cent of Inuit adults in Ottawa speak Inuktitut only, while 38 percent speak both Inuktitut and English.
- Is characterized by strong and inclusive social networks.

*Recommendations:*

- Policy, planning and funding that reflects the current size of the Inuit adult population in Ottawa, the high proportion of young adults, and the need to enhance specific streams for A) Inuit who are permanent residents in Ottawa and B) Inuit who are in Ottawa for a shorter time to access health and other services.
- Policy, planning and funding that prioritizes Inuktitut-specific health and social service programming and Inuktitut language education programming.





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## KEY FINDINGS

- Partnerships with Inuit organizations to ensure that services build on the strengths of Inuit community networks.
- 2) **Striking barriers to income, education, employment, stable housing and food security.** The Inuit adult population in Ottawa experiences extreme disparities in access to income, education, employment, housing stability and healthy food relative to the overall Ottawa population. Of the Inuit adult population in Ottawa:

- Sixty-nine per cent reported an income of less than \$20,000 in the past year.
- Seventy-eight per cent had moved once or more in the past five years, with 26% reporting four moves or more, and 20 per cent lived in crowded housing.
- Twenty nine per cent reported times when their household could not eat healthy food over the last 12 months.
- Fifty-four per cent reported they did not have work that paid wages, an unemployment rate almost nine times higher than the overall Ottawa population.
- Fifty-nine per cent had completed some high school or less, 14 per cent had completed high school, and 27 per cent had completed some college or more.

### *Recommendations:*

A focus by local, municipal, provincial and federal policy-makers on:

- Inuit-specific poverty reduction and income security programming.
- Housing needs for Inuit in Ottawa, including both temporary and permanent residents.
- Inuit-specific food security including Inuit-specific food banks, access and relevance of mainstream food banks for urban Inuit, and nutrition programming.
- Inuit-specific employment opportunities and programming.
- Inuit-specific education strategies to enhance high school success rates – starting with early childhood education programming such as Head Start and following Inuit children through grade school, middle school and high school.

3) **Disproportionate burden of chronic disease, barriers in access to health care and high rates of Emergency Department admissions.**

The Our Health Counts data demonstrates a high burden of chronic disease in the adult Inuit population in Ottawa. In particular, we identified elevated rates of allergies, hypertension and COPD. At the same time, we found a range of barriers in access to health care. These included:



- Cross-cultural barriers. The two most commonly reported were trouble understanding what the health care provider was saying (i.e. they were using technical words and language that didn't make sense) and being uncomfortable because the health care provider was not culturally understanding of Inuit.
- Difficulty accessing traditional Inuit medicine and Inuit midwifery.
- Access issues such as long waiting lists, need for a follow-up/reminder call, inaccessible hours, and lack of ID.

The barriers above are apparent in the ways the adult Inuit population in Ottawa used and experienced health care at the time of our survey. This includes low rates of participation in cancer screening programs, and emergency department visits that were ten times higher than those of the general adult population. Notably, a higher percentage of women (45 per cent) reported emergency department access in the past year as compared to men (23 per cent). At the time of our survey, almost half of Inuit adults in Ottawa (43 per cent) rated their health care access as fair or poor.

*Recommendations:*

Local, municipal, provincial and federal policy-makers work together to ensure:

- Improved and timely access to culturally safe preventative, primary, and specialist health care services that are matched to needs.
- Culturally safe and high quality emergency department services.
- Inuit-specific cultural safety training programs for all health and social service providers working with Inuit.
- Access for all Inuit in Ottawa to trained Inuit cultural interpreters when they are using health and social services.

The Ottawa Hospital and the Local Health Integration Networks work in partnership with Tungasuvvingat Inuit and an appropriate research team to:

- Better understand and enhance the health service use pathways of Inuit accessing emergency departments in Ottawa.
- Help to ensure timely access to culturally safe care across the health care system in Ottawa from primary care to specialists to emergency departments.

4) **Striking burden of trauma, family disruption, discrimination and violence.**

- Historical trauma, child protection and discrimination





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## KEY FINDINGS

- Residential school. Just under one in five Inuit living in Ottawa (18 per cent) reported that they had been a student at a federal residential school, or a federal day school (including schools administered by the church, federal government and provincial government).
- Forced relocation. When asked about forced relocation, 28 per cent of Inuit living in Ottawa reported that they or members of their family were forced by the federal government to move from their community in the North to a new location chosen by the government.
- Child protection involvement. Thirty-eight per cent of Inuit living in Ottawa reported child protection agency involvement with their family.
- Discrimination. Twenty-seven per cent of the adult Inuit population in Ottawa has been treated unfairly or kept waiting because they are Inuk by professionals such as doctors, nurses, social workers or law enforcement personnel.

### *Violence and abuse*

While the circumstances and context surrounding violence and abuse are extremely complex, there are potential links to loss of culture and tradition and intergenerational or historic trauma as well as high rates of incarceration for Inuit men, high rates of shelter use/unstable housing, alcohol and substance use and feelings of mistrust and powerlessness. Currently, however, there is a tremendous shortage of appropriate resources and services available for Inuit to address issues surrounding violence and abuse.

One quarter (25 per cent) of Inuit living in Ottawa reported that someone in their residence had physically hurt them. There was a fairly even split across age and gender for physical abuse. When asked if anyone in their residence had sex when they didn't feel like it, 16.5 per cent answered yes.

### *Recommendations:*

- Local, municipal, provincial and federal policy-makers prioritize the expansion of Inuit-specific programming to address the impacts of residential schools, forced relocation and disproportionate disruption by child protection agencies.
- Local child protection agencies work with relevant Inuit community services to develop Inuit-specific and Inuit community-led child protection services and protocols.
- Local, municipal, provincial and federal policy-makers prioritize the provision of Inuit-specific family violence programming for both victims and perpetrators.

### 5) **Disproportionate burden of mental health challenges.**

Not surprisingly, given the challenges described above, Inuit adults in Ottawa experience a disproportionate burden of depression and anxiety. In addition, more than three quarters

of the Inuit adult population living in Ottawa reported that they had a close friend or family member who had committed suicide (77 per cent).

*Recommendations:*

- Local, municipal, provincial and federal policy-makers prioritize the expansion of Inuit-specific mental health programming.

#### 6) **Opportunities for further Inuit community-directed health assessment and response.**

The Our Health Counts Inuit Ottawa project was a success largely due to the strength of the Inuit community-led project implementation. It has been more than seven years since data collection was completed.

We recommend that local, municipal, provincial and federal policy-makers support Tungasuvvingat Inuit and a research team of their choice to do a follow-up Our Health Counts Inuit Ottawa Health Assessment project.





## PROJECT OVERVIEW

### INTRODUCTION

Over 70% of Ontario's Indigenous population lives in urban areas.<sup>1</sup> Public health assessment data for this population is almost non-existent, despite its size. This is primarily due to the inability of Ontario's current health information system to identify urban Indigenous individuals in its health datasets. Health assessment data that do exist are most often program or non-random survey based, not population based. Existing potential sampling frames are either not accessible (i.e. Statistic Canada Census) or reflect biased, non-random sub-populations (i.e. program/service clients lists, membership lists, and Métis registry). When urban Indigenous people have been included in census based national surveys (such as the Canadian Community Health Survey (CCHS)) these surveys are vastly underpowered (i.e. seven Indigenous participants in the CCHS for Toronto Centre) and First Nations, Inuit, and Métis data cannot be disaggregated.<sup>2,3</sup> We do know from the Canadian Census that First Nations, Inuit, and Métis populations experience ongoing disparities in social determinants of health such as income security, employment, education, food, and adequate housing compared to non-Indigenous Canadians and that these disparities persist with urban residence.<sup>4,5</sup> From a population and public health perspective, this near absence of population based health assessment data is extremely concerning, particularly given the known disparities in social determinants of health. This situation is unacceptable in a developed country such as Canada.

As a result of these deficits in urban Indigenous health information, policy makers in community organizations, small regions, and provincial and federal governments are limited in their abilities to address urban Indigenous community health challenges and aspirations. Without Indigenous health information, effective health policy, planning, program/service delivery, and performance measurement are limited. Moving toward basic population health measures is essential to improve the health status, access to services, and participation in health planning processes affecting Indigenous people.

From 2008 to 2012, the Ontario Federation of Indigenous Friendship Centres (OFIFC), Métis Nation of Ontario (MNO), Ontario Native Women's Association (ONWA), and Tungasuvvingat Inuit (TI) worked with a health research team led by Dr. Janet Smylie based at the Centre for Research on Inner City Health (CRICH), St. Michael's Hospital, on the Our Health Counts Urban Indigenous Health Database project. For the Inuit arm of the project, the community organizational partner was Tungasuvvingat Inuit Family Resource Centre.

The goal of the Our Health Counts (OHC) project was to work in partnership with Indigenous organizational stakeholders to develop a baseline population health database for urban Indigenous people living in Ontario that is immediately accessible, useful, and culturally relevant to local, small region, and provincial policy makers.



The Our Health Counts Urban Indigenous Health Database project was funded by OFIFC, the Ministry of Health and Long Term Care (MOHLTC) Indigenous Health Transition Fund, and CRICH. Organizational partners included OFIFC, MNO, ONWA, TI and Saint Michael's Hospital. Community partners included De dwa da dehs neys Indigenous Health Access Centre in Hamilton, MNO and TI in Ottawa.

There were three project community sites: First Nations in Hamilton, Inuit in Ottawa, and Métis in Ottawa. This report will focus on the Inuit in the Ottawa community site.

## PROJECT OBJECTIVES

### *Formalizing Intersectoral Partnerships and Establishing Priority Measures*

1. To formalize partnerships between the four core urban Indigenous provincial organizations, the multidisciplinary academic team, the Ontario MOHLTC, and the Institute for Clinical Evaluative Sciences (ICES) for this project through research agreements and data management/governance protocols. This will include the establishment of an Indigenous Health Data Governance Council comprised of the four core urban Indigenous provincial organizations.
2. To confirm priority health domains and best indicators for each domain through these partnerships.

### *Knowledge Development through Establishment of a Population Health Database*

3. To generate new health data sets reflective of these priorities for a sample of urban First Nations, Inuit, and Métis adults and children using respondent driven sampling, secure data linkage with ICES and a rapid health assessment questionnaire.

### *Capacity Building, Training and Mentoring*

4. To strengthen capacity and leadership among Ontario's urban Indigenous communities and their policy, program and health service collaborators in the area of Indigenous health information collection, analysis, and application through: a. the involvement of community representatives as active research team members in all aspects of this project; b. a series of community-based health data use workshops.
5. To provide a scientifically excellent and culturally relevant training and mentorship environment for Indigenous health researchers at the undergraduate, graduate, post-doctoral and new investigator level.

### *Knowledge Dissemination, Application, and Contribution to Future Projects*

6. To support community-based, small region, provincial, and federal uptake and application of health data generated through 1-3 above to First Nations, Inuit, and Métis health policies, programs, and services. This will include the establishment of an Indigenous health data users group, which will have open membership and allow diverse stakeholders input and access to data generated by the project.
7. To share study results and adaptation processes with First Nations, Inuit, and Métis stakeholders in other provinces and territories and thereby contribute to the development of urban Indigenous health data enhancement strategies.
8. To share study results and adaptation processes with First Nations, Inuit, and Métis stakeholders in other provinces and territories and thereby contribute to the development of urban Indigenous health data enhancement strategies.





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## PRELIMINARY PROJECT DEVELOPMENT

In 2007-2008, the Ontario Federation of Indigenous Friendship Centres (OFIFC), Tungasuvvingat Inuit (TI), Métis Nation of Ontario (MNO), Ontario Native Women's Association (ONWA) and a research team led by Dr. Janet Smylie, an Indigenous public health research scientist at St. Michael's Hospital, developed a research project to address the gaps in population based data for urban Indigenous populations in Ontario. Dr. Smylie had already worked in partnership with the Tungasuvvingat Inuit Family Resources Centre in Ottawa in the design of an urban Inuit respondent driven sample based health assessment survey, however this project had not been successful in obtaining operational funds. A small grant from the Public Health Agency of Canada was used to fund a research planning meeting in March 2008. At this meeting, research principles, partnerships, and methods were further developed. A full research proposal was submitted by OFIFC on behalf of the research partners to the Indigenous Health Transition Fund, MOHLTC Ontario in June 2008.

The project team was tentatively informed of the success of their application in late 2009, however federal and provincial funding delays resulted in no AHTF monies arriving until the end of March 2009. Fortunately, both OFIFC and CRICH at St. Michael's Hospital were able to identify project start-up funds and the project was formally initiated in January 2009.

## PROJECT GOVERNANCE

All of the core organizations involved in the Our Health Counts Project (OFIFC, MNO, TI, ONWA, and CRICH) agreed upon the following research principles:

- Indigenous Leadership
- Research Agreements and Data Management/Governance Protocols
- Capacity Building
- Respect
- Cultural Relevance
- Representation
- Sustainability

The first principle, Indigenous project leadership was operationalized by the establishment of the Our Health Counts project Governing Council, which was comprised of representatives from OFIFC, MNO, TI, and ONWA as voting members and Dr. Janet Smylie from CRICH as a non-voting governing council participant who was also identified as the scientific director for the project. Monthly Governing Council meetings were held throughout the length of the project.

The second principle, research agreements and data management and governance protocols was operationalized in a way that ensured that the OHC Governing Council as well as the First



Nations, Inuit, and Métis community project partners were able to exercise their rights to govern and manage project data, including the rights to own, control, have access to and possess project data. To start with, the four Governing Council organizational members developed and signed a project MOU (Appendix A). Next, the OHC project team successfully developed and negotiated community research agreements with each of the three community project sites. The Inuit (TI) – SMH research agreement is attached in Appendix B. Finally, a tri-party data sharing agreement was negotiated between the Institute of Clinical and Evaluative Service, the OHC Governing Council (OFIFC, MNO, ONWA and TI) and the CRICH at St Michael's hospital. (Appendix C)

## RESEARCH TEAM

### *Indigenous Governing Council Members:*

Sylvia Maracle (OFIFC), Connie Siedule (TI), Lisa Pigeau (MNO), Betty Kennedy (ONWA)

### *Academic Research Team Members:*

Janet Smylie (Scientific Director), Pat O'Campo, Rick Glazier, Marcia Anderson, Kelly McShane, Roseanne Nisenbaum, Dionne Gesink Law, Michelle Firestone

### *Project Staff:*

Cheryl McPherson, Conrad Prince (CRICH); Deborah Tagornak, Colleen Arngna'naaq, Jessica Demeria, Leslie Cochran (Inuit Community Site Leads); community interviewers (12 plus)

### *Additional Collaborators:*

Vasanthi Srinivasan (Director, Health System Planning and Research Branch, MOHLTC); Fredrika Scarth (Acting Manager, Research, Health System Planning and Research Branch, MOHLTC); Sue Vanstone (Manager, Indigenous Health Strategy Unit, MOHLTC); Don Embuldeniya (Manager, Health System Information and Management Branch, MOHLTC); Kelly Murphy (Director of Knowledge Translation, CRICH); Leslie McGregor, Director, Noojamawin Health Authority, Paula Stewart (Centre for Chronic Disease Prevention and Control, Public Health Agency of Canada)

## INUIT IN OTTAWA AND THE TUNGASUVVINGAT INUIT

According to the 2006 Census, 11,000 (23%) Inuit lived outside of Inuit Nunaat with 17% in urban areas and 6% in rural areas. The cities with the largest Inuit populations outside Inuit Nunaat were Ottawa-Gatineau, Yellowknife, Edmonton and Montreal.

Tungasuvvingat Inuit has identified that Census estimates of the number of Inuit living in Ottawa represents a significant underestimate, drawing on a roster of Inuit with Ottawa addresses using health and social services provided by Tungasuvvingat Inuit which is several times larger than the census population estimate.

Tungasuvvingat Inuit (TI) is a provincial service provider that offers Inuit-specific social support, cultural activities, counselling and crisis interventions that are grounded in the traditional principles of Inuit Qaujimajatuqangit (IQ), the Inuit way of "knowing." The mission of TI is to meet the rapidly growing, complex and evolving needs of Inuit in Ontario by providing interconnected and holistic programs that contribute to the health and wellbeing of Inuit





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across the lifecycle. Now in its 30th year of operation, TI is a well-established and trusted hub for frontline, integrated services and barrier-free referrals centered on the clients' needs.<sup>6,7</sup> As the only agency of its kind in Canada, TI partners with over 60 Inuit and non-Inuit organizations and is recognized as a respected leader, supporter and advocate for Inuit families in Ottawa and throughout the province. A strong indication of TI's success is the large number of requests from other urban Inuit communities across the country, seeking TI's assistance in establishing similar programs. TI is a lead driver in inspiring the revitalization and growth of language and traditional culture as well as supporting the development and implementation of Inuit specific protocols and policies.<sup>6</sup>

TI offers a diverse range of programs to the Inuit community. Some of these services include: The Family Resource Centre focuses on families and promotes healthy development of young children; the Housing Support team assists with clients' housing needs; Employment services provide job and career support; and the Mamisarvik Healing Centre and Transition House provide Inuit specific residential and day programs for individuals suffering from trauma and addictions issues.<sup>6,7</sup>

TI provides culturally appropriate, interdisciplinary primary care to the Inuit community with a focus on identified Inuit population health priorities such as Tuberculosis, Sexually Transmitted Infections, Mental Health, Pre-Post Natal, Hepatitis, Diabetes. In 2014, the Family Health Team was incorporated into an independent, non-profit corporation named the Akausivik Inuit Family Health Team (AIFHT).

**RESEARCH METHODS**

**COMMUNITY BASED PARTICIPATORY RESEARCH**

Community-based research takes place in community settings and involves community members in the design, implementation, and documentation of research projects. Its principles



and methods ensure that processes are relevant and that the outcomes have tangible benefits for the communities involved. It has been widely used and adapted in research with Indigenous communities.

Community-based, participatory research (CBPR) was deemed the most appropriate research methodology for the OHC project because it uniquely emphasizes shared decision making among study partners and because it supported the principles of Indigenous data governance and management. The OHC project's CBPR approach drew on the existing research experiences of the participant core organizations and the project scientific director and successful models of and recommendations regarding community-based participatory Indigenous health research.<sup>8,9</sup> Our approach promoted balance in the relationships between the Indigenous organizational partners, academic research team members, Indigenous community participants and collaborating Indigenous and non-Indigenous organizations throughout the health information adaptation process, from initiation to dissemination. This was achieved through the project governing structure including the project Governing Council and research and data sharing agreements described above as well as ensuring that capacity building, respect, cultural relevance, representation, and sustainability were core features of the project's ongoing overall and day to day implementation.

## CONCEPT MAPPING

According to Trochim and Kane,<sup>10</sup> concept mapping is “considered a structured methodology for organizing the ideas of a group or organization, to bring together diverse groups of stakeholders and help them rapidly form a common framework that can be used for planning, evaluation, or both” (p.1). The OHC research team employed concept mapping in order to create three site specific and culturally appropriate community health survey tools (First Nations, Inuit, and Métis). The method was identified as promising given the long history of using maps as a tool to document traditional land use and knowledge in Indigenous communities.<sup>11</sup>

The OHC concept mapping method involved three main community participatory steps: (1) Group Brainstorming, (2) Group and/or Online Sorting and Rating and (3) Group Map Interpretation.

Key health and social service stakeholders were identified in partnership with TI and invited to attend a group brainstorming session. Participants were purposely selected to ensure that diversity of representation according to organization represented, gender, age, and organizational role (i.e. both staff and clients were included). Thirteen individuals participated in a brainstorming session and responded to the following focal question:

Health and health related issues and topics in the Ottawa Inuit community that are prevalent, serious, have the fewest solutions, or otherwise important include...

The brainstorming session generated 44 statements, which were then sorted into piles that made sense to each participant and were rated according to service availability, need for health information and overall health concern. Concept systems software was used to create preliminary point and cluster maps reflecting the overall group sort and rate. Community stakeholders were then engaged in a final group session to interpret and refine these preliminary maps. Concept mapping findings, including statements, domains and maps are presented in the results section.





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### RESPECTFUL HEALTH SURVEY

It was determined very early in the research process that the needs assessment survey should be renamed and reconceptualized as “respectful” rather than “rapid” as this would be more fitting with community processes and values.

In March 2009, governing council representatives identified priority health and social issues that they wanted to be included in the needs assessment surveys. Drawing on this preliminary list of priority areas and existing survey tools the academic research team developed a bank of questions.

Once the concept mapping processes were complete, the health statements and health domains identified in the Inuit concept mapping were used to develop a community specific adult and child health survey for Inuit living in Ottawa. Survey tools were piloted with Inuit community members who were otherwise ineligible for the survey (i.e. their residence was outside of the city of Ottawa). The final survey tool is attached in Appendix D.

The Research Team implemented the programming of the survey tool using software packages provided by IBM® Statistical Packages for the Social Sciences (SPSS®). Specifically, the SPSS Data Collection Author Professional was used to develop and program the survey tool and the SPSS Data Collection Interviewer package was used to administer the survey. The TI project staff was involved in the piloting and testing of the computer assisted survey tool. Various changes and adaptations needed to be made before the final version was up and running smoothly.

### RESPONDENT DRIVEN SAMPLING

In the absence of an accessible and accurate population based sampling frame for urban First Nations, Inuit, and Métis communities, the academic team and key Indigenous stakeholders selected a respondent driven sampling technique (RDS) to generate representative samples. RDS has emerged as a technique for sampling hard to identify populations and has been used in urban centres across the world. It combines a modified snowball or chain referral sample technique with a mathematical system for weighing the sample based on self-reported social network data to compensate for it not having been drawn as a random sample. Each participant is asked questions regarding their relationship to the person who referred them to the study and the size of their network, which allows the bias in the sampling process to be estimated and unbiased estimates of a population’s composition (e.g., age, gender, birthplace), behaviors and disease prevalence can be obtained.

Sample sizes were calculated using the formula provided by Salgunik for RDS, which recommend sample sizes that are twice as large as those that would be needed under simple random sampling.<sup>12</sup> Based on this formula we originally aimed to recruit 500 Inuit adults and 500 children in Ottawa. This was modified to 500 adults and 250 children as the study progressed as it became apparent that the child sample recruitment was reflecting the age make-up of the Inuit population in Ottawa, and that children would make up one-third of the total sample as opposed to one half.

In RDS, the sampling is done by study participants who are given tickets and asked to recruit other study participant by giving out the tickets. In the OHC Inuit Ottawa RDS each participant

was given 3-5 coupons. For each participant recruited, the person who made the recruit received \$10. An RDS sample is initiated by a limited number of 'seeds' (6-12 individuals) who are provided with coupons for recruitment. In the OHC Inuit Ottawa RDS, the TI staff as well as members of the research team identified potential seeds who represented a diverse demographic of Inuit people living in Ottawa. Gender, age, family size, occupation, and where in the city a person lived were all factors which were considered in seed selection.

Inclusion criteria for participation in the study included adults who were resident within the geographic boundaries of the City of Ottawa and self-identified as Inuit. Adults were defined as persons 18 years of age and older or persons younger than the age of 18 years who were parents. The child survey was completed by parents or custodial relatives/guardians for all children who resided with the adult and were under the age of 14 years. In order not to exclude Inuit children who were living with a non-Inuit biologic or adoptive parent/relative/guardian we additionally allowed coupons to be given to non-Inuit persons who were the custodial parent/relative/guardian of one or more Inuit children.

The Inuit RDS sample began with 8 seeds who each received three coupons to refer a friend, acquaintance or family member into the study. In order to increase the number of completed surveys and diversify the sample, 3 additional seeds were added 1.5 months into the study.

RDS sampling was extremely successful. Over a period of 24 weeks, a total of 501 persons were recruited, including 342 adults and 159 children. We will further detail in the results section how long recruitment chains resulted in departure from the original sampling bias and the achievement of a state of "equilibrium" in which the probability of recruitment into the study reflects the demographics of the population.

Using the RDS stat program we used the self-reported social network and referral information to generate population based estimates of the health and social indicators included in the OHC Inuit survey. These findings are presented in the results section.

### ICES DATA LINKAGE

The Institute for Clinical and Evaluative Sciences (ICES) is an independent, not for profit organization whose core business is to contribute to the effectiveness, quality, equity, and efficiency of health care and health services in Ontario. It is able to anonymously link population health information compiled from a number of sources using a participant's health card number. The opportunity to connect with ICES enabled the OHC research team to produce, for the first time, urban Indigenous population based rates of emergency room use, hospital admission and participation in preventative screening programs, including mammography, PAP testing, and colorectal cancer screening.

Adult participants in the OHC Inuit survey were able to opt in or out of the ICES data linkage for themselves and their children on their consent forms.

Inuit adult and child participants in our sample were identified in the larger ICES database using a deterministic linkage based on their Ontario health card number, date of birth, and name. In order to protect the confidentiality of study participants, this linkage was done internally at ICES, by ICES staff.





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## COMMUNITY IMPLEMENTATION

The survey administration team consisted of one site coordinator and five survey administrators all of whom were recruited by and from the local Inuit community. Survey administrators were able to conduct interviews in both English and Inuktitut. Interviews were conducted at the Tungasuvvingat Inuit Family Resource Centre program and administrative site in Vanier, which was fitted with three private offices to conduct the respectful health surveys. These interview offices were set up by the survey administration team to be comfortable and accommodating for research participants. Off-site interviewing was also available upon participant request.

Survey administrators attended a mandatory 4 day comprehensive training session that included the following topics:

- study overview,
- RDS methods,
- research ethics,
- obtaining consent,
- maintaining confidentiality and privacy,
- conducting face-to-face interviews,
- participant and interviewer safety procedures,
- cultural safety,
- computer assisted personal interview (CAPI) and
- Respectful Health Survey question logic and rationale.

During the RDS recruitment process there were regular weekly meetings between the site coordinator and project research manager. The purpose of these meetings was to identify any issues with the recruitment tracking and interview processes and to find solutions. The academic research team (including an RDS expert consultant) conducted bi-monthly teleconferences with the Inuit community lead and the site coordinator to discuss the progress of the recruitment processes and to adjust RDS recruitment as needed.

Lastly, the site coordinator conducted weekly debriefing sessions for the survey administrators which included access to counselors and traditional knowledge keepers. This was important to support the survey administrators in processing and managing the challenging and at times traumatic narratives which were shared by Inuit community members participating in the study.





**PROJECT  
OVERVIEW**



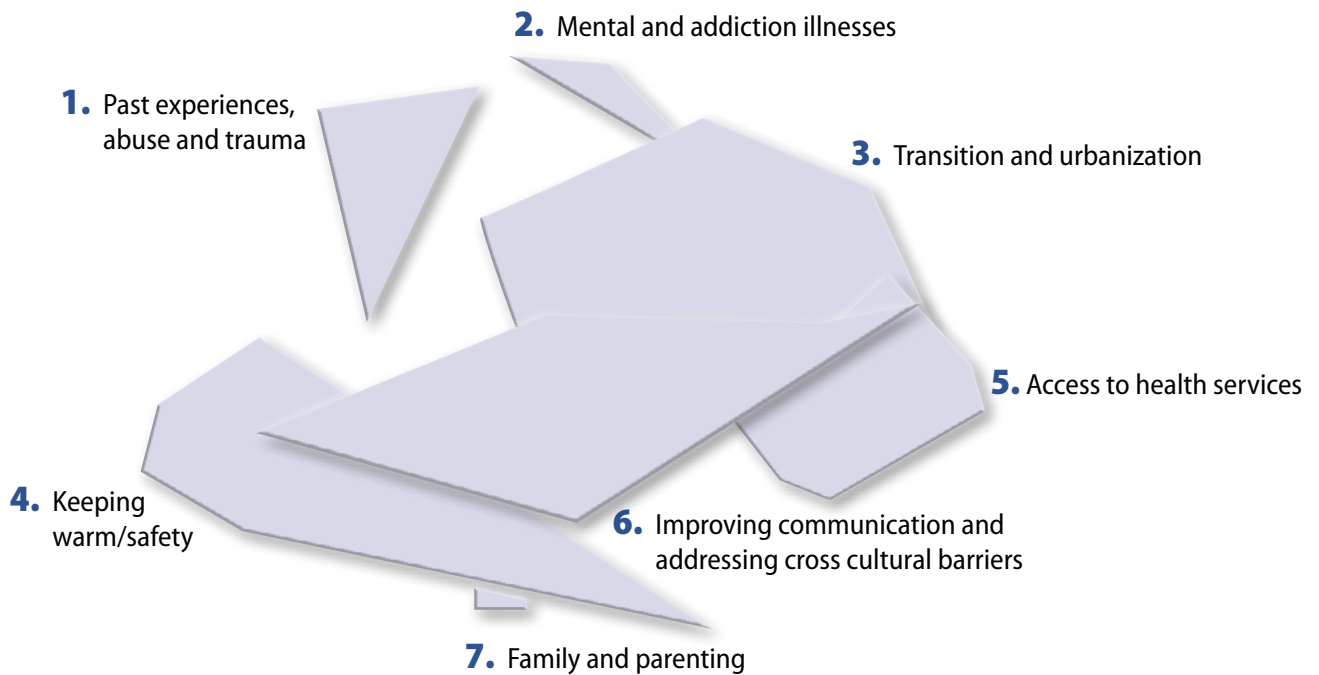


# RESULTS

## CONCEPT MAPPING

Figure 1: Inuit Ottawa Concept Map

*“Health and health related issues and topics in the Ottawa Inuit community that are prevalent, serious, have the fewest solutions, or otherwise important include ...”*



*The initial brainstorming session generated 44 statements, which are attached in Appendix E. The concept mapping process revealed the seven interconnected domains that provided the framework for the Inuit health survey (Appendix D).*

*Socio-demographics: This section addressed age, language, relationship status, Census completion, education and socio-economic status.*

*Keeping Warm and Safety: This section addressed housing and food security.*

*Physical Health (\*This was not a domain that appeared on the map, however physical health issues were prioritized by the community): This section addressed general health, chronic health conditions, injury and acute illness, reproductive health and ability*

*Past Experiences Abuse and Trauma: This section included questions about residential schools, forced relocation, child protection agency involvement, discrimination and violence and abuse, Mental Health and Addiction Illnesses: This section addressed mental and emotional health. Questions around suicide as well as substance abuse appeared in this section.*

*Transition and Urbanization: This section addressed the challenges with moving from the North to Ottawa.*

*Access to Health Services: This section addressed access and availability of health services. Specifically, questions focused on cross-cultural barriers to accessing services, emergency care and hospitalization.*

*Final Questions: This section addressed the strengths and challenges of the community.*

*In addition to the domains described above, we also developed a child specific survey, the results of which will be summarized in a subsequent report.*

## ADULT SURVEY DATA

### Recruitment Dynamics

Respondent-driven sampling was successful for our sample of the Ottawa Inuit population.

Statistically, the following facts show that the respondent-driven sampling method results tell us what is happening in the Ottawa Inuit community as a whole:

- The sample's recruitment patterns matched expectations based on other RDS studies
- Assumptions regarding recruiter-recruit relationships, minimum recruitment chain length, sampling-with replacement, and network segregation were met
- The proportion of the population captured in the sample was not great enough to bias the RDS estimator
- The potential effects of population mobility were avoided through study design.

Among the RDS sample of Inuit in Ottawa, 78.9% of participants were recruited via referral trees originating from 3 seeds (see figure 2). This pattern is expected based on the mathematics of RDS recruitment dynamics.

The average network size varied among study participants, with a mean of 167.8, a median of 50, and a range of [4, 1000].

The relationship between recruiter and recruit (according to recruit) was "friend" in 47.7% of recruitments, "relative" or "boyfriend/girlfriend" in 25.6% of recruitments, "acquaintance" in 19.2% of recruitments, and "stranger" in 7.5% of recruitments.

The relationship between recruiters and recruits in RDS studies is an important one because one assumption required for unbiased RDS estimation is that recruitment relationships be symmetric. That is, for any recruitment by respondent X of respondent Y, we assume that the opposite recruitment by Y of X is equally likely to occur (conditional on each respondent's





network size). When recruits report a relationship to their recruiter other than “stranger”, this assumption is likely to hold. Because the vast majority (92.5%) of recruits had a pre-existing relationship with their recruiter, this assumption is met for our RDS study.

A total of 43.1% of respondents recruited others into the sample. The mean number of recruitments for all sample members is 0.97; the mean number of recruitments among those who recruited is 2.24. This pattern is expected based on the mathematics of RDS recruitment dynamics.

RDS samples begin with a convenience sample of initial respondents (or “seeds”) and rely on long recruitment chains to obtain information unaffected by the choice of seeds. The longest recruitment chain in our study was 11 waves, where the starting seed in a chain is wave 0. This chain length exceeds both the general expectation of needing 3-6 waves for valid RDS samples and the estimated number of waves needed for our sample in particular (all variables examined were estimated to require less than 4 waves).

We estimate that our sample comprises 13.1% of the total Inuit population in Ottawa, which is not greater than the approximately 20% limit for the assumption of sampling-with-replacement to be valid. Therefore, we believe that violation of the sampling-with-replacement assumption did not bias our study’s results.

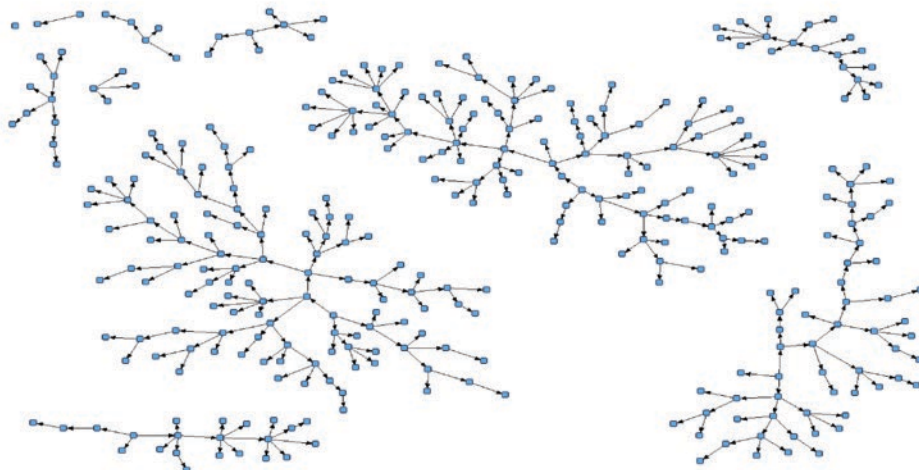
RDS works very well when the population’s social networks are not segregated based on respondent attributes (e.g., age, sex, income) or on population-level factors (e.g., geography). We observed low levels of network segregation based on respondent attributes, with the exception of moderate segregation based on employment status and having participated in the Canadian census. These segregation rates are reasonable and do not pose problems for the RDS estimator.

Some members of the Ottawa Inuit population reside in communities in the Inuit Nunangat (northern Inuit land claim territories) and temporarily reside in Ottawa while receiving health care. To ensure that mobility between these areas did not affect sampling, participants were instructed only to recruit other population members currently residing temporarily or permanently Ottawa, who could complete the survey and recruitment before leaving Ottawa.

*Figure 2. Recruitment Tree of Inuit in Ottawa, Our Health Counts*

*Methodological note regarding the interpretation of self-report data:*

It is important to recognize that the cycle of poverty experienced by this population (i.e. reporting of high mobility, overcrowding and very low income) as well as historic and



current trauma is likely associated with an under-reporting of socio-economic stressors, ill health, and barriers in access to health services (in those communities without targeted/ specific primary care services at the time of survey). This needs to be taken into consideration when interpreting the results of questions such as self-rated health, level of access to health services and barriers to health services for several reasons.

First, there may be some stigma around self-reporting of personal and household income. Secondly there may be cultural norms that discourage direct verbal expression of complaint. Thirdly, individuals in a population that has experienced longstanding adverse conditions may have internalized notions of “not being good enough” and therefore accept what others might perceive as hardship. Fourthly, lowering expectations is a strategy for survival when one faces chronic and recurrent hardship. Finally, multigenerational experiences of adversity may result in the normalization of what outsiders living in more prosperous circumstances might consider unmet needs or ill health.

In summary, the Inuit community may be found to under-report health and socio-economic hardships due to: lowered expectations of health or “what it means to be healthy” and cultural norms that discourage the articulating complaints, including the articulation of physical pain. For example, 10% of all Inuit adults stated there had been a time in the past year when they required health care but didn’t receive it, however the same census revealed much lower rates of contact with a doctor for Inuit adults compared to the general Canadian population (56% compared to 79%). Similarly, the prevalence of self-reported mental health issues was low, however epidemically high rates of suicide were reported for this population.<sup>13</sup>

*Reading the graphs in the next sections:*

The vertical lines running through the top of the bars on the bar graphs are called confidence intervals. The bars on the graph represent our best estimates of what the graph is measuring. The confidence interval lines help us understand the precision of our estimates. For example, in figure 3, the bar graph is showing the breakdown of the total adult Inuit population in Ottawa by age group. The first bar tells us that 40% of the total Inuit population is aged 18 to 34. This is our best estimate. The vertical confidence interval line running through the top of this bar tells us that the actual percentage could be as low as 30% or as high as 46%. We don’t know what the actual numbers are because rather than interviewing every single Inuk person in Ottawa (which would have been too difficult) we interviewed a large sub-sample of the total Inuit population and used statistics to make estimates for the total Inuit population.





# SECTION 1: SOCIODEMOGRAPHICS

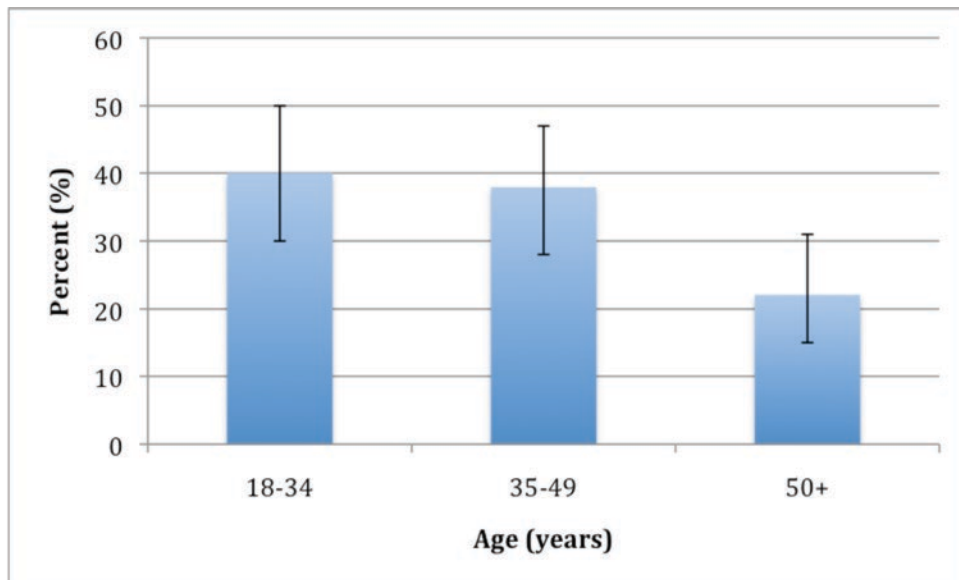
## A. DEMOGRAPHICS

The Our Health Counts (OHC) Inuit adult sample in Ottawa was comprised of a total 345 participants age 18 years and over.

Based on this sample, we were able to determine that the adult Inuit population in Ottawa was comprised of about 43% males and 57% females. The age distribution was similar across both genders. About 40% of the population was between the ages of 18-34 years, 38% between the ages of 35-49 years, and 22% over the age of 50. (See Figure 3).

In comparison, about 27% of the total Ottawa adult population was between the ages of 20-34 years, 32% between the ages of 35-49 years, and 41% over the age of 50.<sup>14</sup> The higher proportion of young adults in the Inuit Ottawa population compared to older adults in the total Ottawa population is consistent with what is known about Inuit and Indigenous populations compared to non-Indigenous populations in Canada. Generally, Indigenous populations in Canada experience higher mortality and lower life expectancy and have higher birth rates compared to the general population.<sup>15-17</sup>

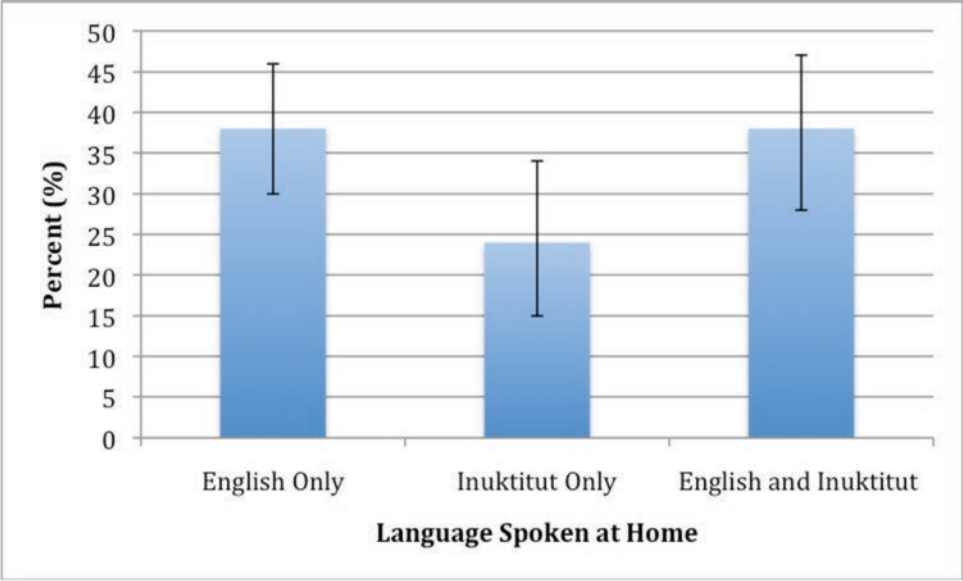
Figure 3. Age Distribution of Inuit Adults, Our Health Counts



When asked what language was spoken most often at home, 38% of the Inuit adult population in Ottawa spoke English only, 24% spoke Inuktitut only, and 38% spoke English and Inuktitut. (See Figure 4). The strong retention of Inuktitut language among the Inuit living in Ottawa is an important finding. It indicates that not only do Inuit living in Inuit land claim territories require Inuktitut-specific services and programs, but that Inuit living in Ottawa require this as well.

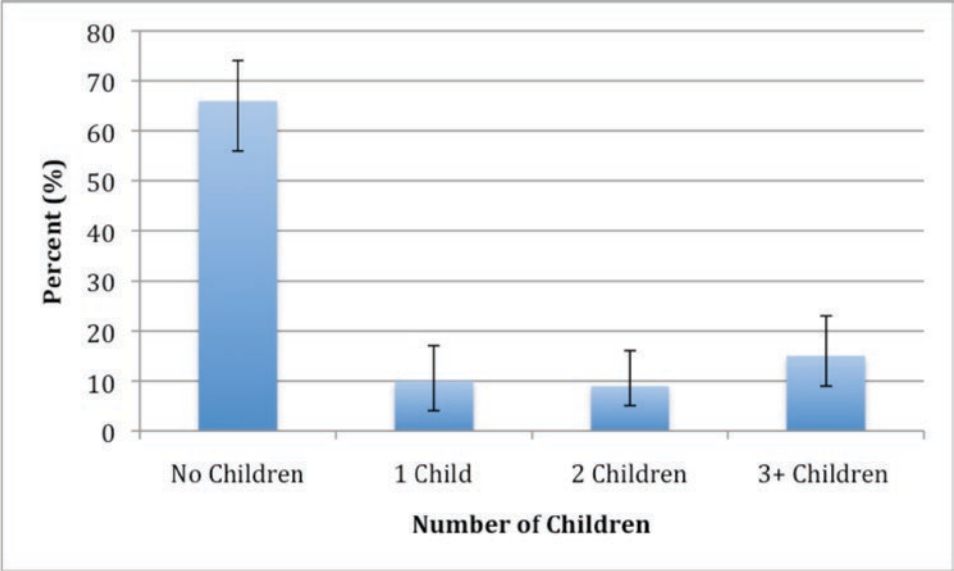


Figure 4. Language Spoken at Home for Inuit Adults, Our Health Counts



Among the Inuit adult population in Ottawa, 66% had no Inuit children living with them at the time of the survey, 10% had one Inuit child living with them at the time of the survey, 8.5% had two Inuit children living with them at the time of the survey, and 15% had three or more Inuit children living with them at the time of the survey. (See Figure 5).

Figure 5. Number of Children Living with Inuit Adults, Our Health Counts



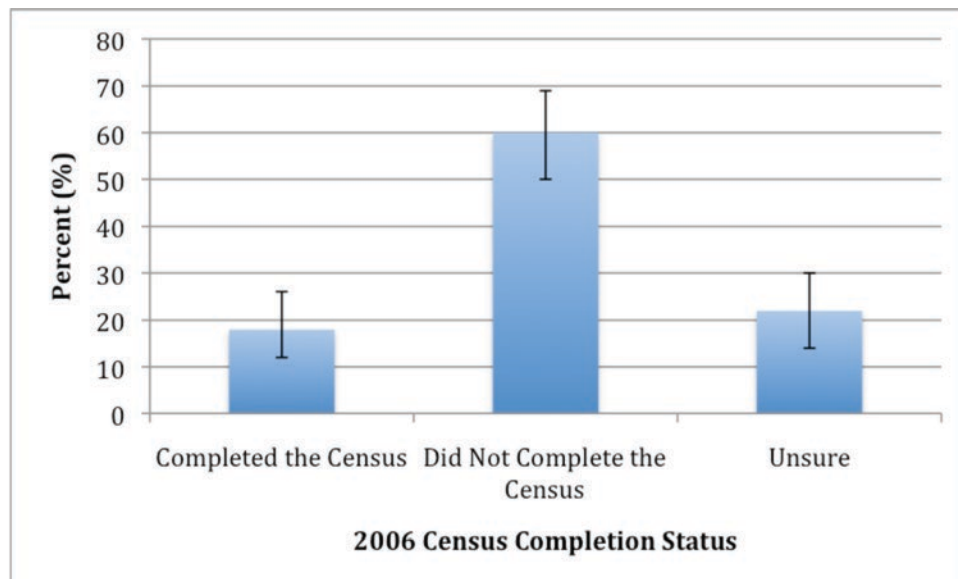


When participants were asked if they had completed the 2006 Canadian Census, 18% of Inuit adults living in Ottawa reported they had, 60% reported they had not, and 22% said they did not know. (See Figure 6). This represents a population under-coverage of at least 60% and up to 82%. It is likely that some individuals that reported that they did not know if they participated in the Census actually had not participated, but did not want to report this due to the mandatory nature of the Census participation.

In contrast, the overall non-response rate for the 2006 long form Canadian census in Ontario was 5.7%, and in Canada was 6.5%.<sup>18</sup>

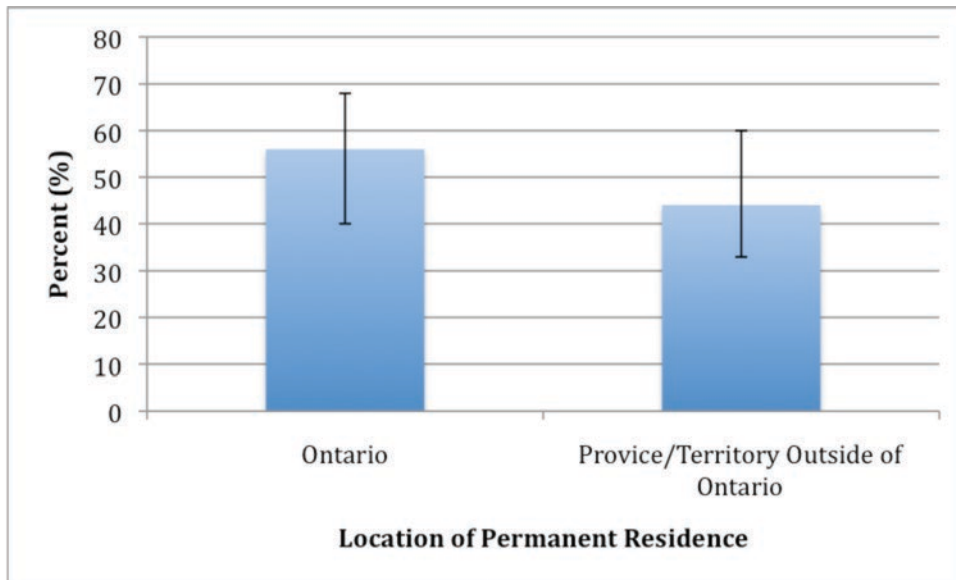
The striking proportion of non-participation of Inuit in Ottawa in the 2006 Canadian Census validated previously articulated concerns from Inuit community organizations that urban Inuit people are under-represented in the Census.

*Figure 6. Participation in the 2006 Canadian Census among Inuit Adults, Our Health Counts*



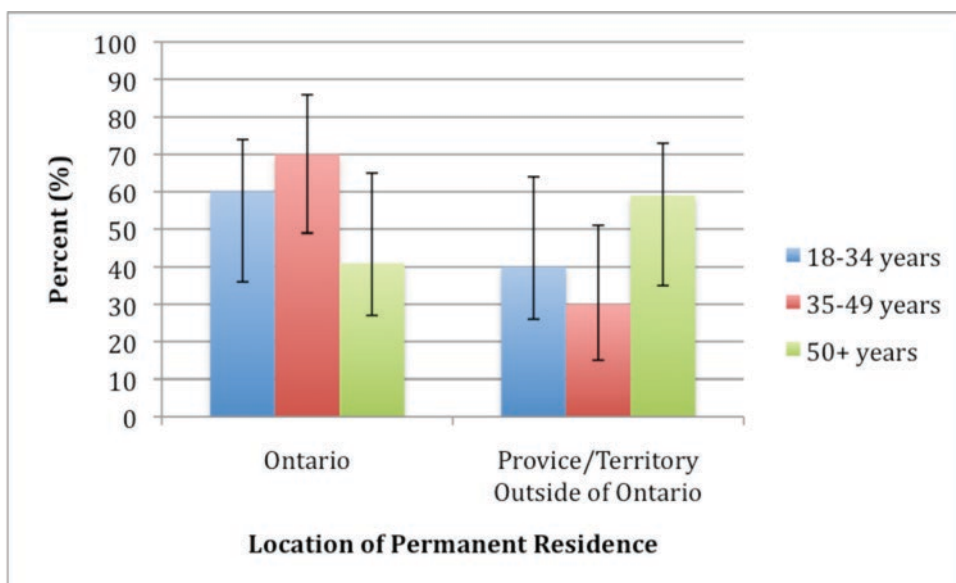
Permanent residence was defined as a place that the participant currently lived in or had lived in for at least 2 months. Overall, 56% of the Inuit adult population in Ottawa reported Ontario as their permanent residence, while the remaining 44% reported a province/territory other than Ontario as their permanent residence. There was no clear difference between gender. (See Figure 7). This highlights the significant proportion of the Inuit population who are non-resident to Ottawa, but require health and social services in Ottawa. This may be because Ottawa is the tertiary health care referral center for Nunavut.

Figure 7. Permanent Residence of Inuit Adults, Our Health Counts



While our study was too small to be certain, the age distribution suggests that a greater proportion of younger Inuit adults have permanent residence in Ontario, while the older Inuit population tend to have permanent residence outside of Ontario. About 60% of individuals between 18-34 years, 70% of individuals between 35-49 years, and 41% of individuals 50+ years reported permanent residence in Ontario. (See Figure 8).

Figure 8. Permanent Residence of Inuit Adults by Age, Our Health Counts.





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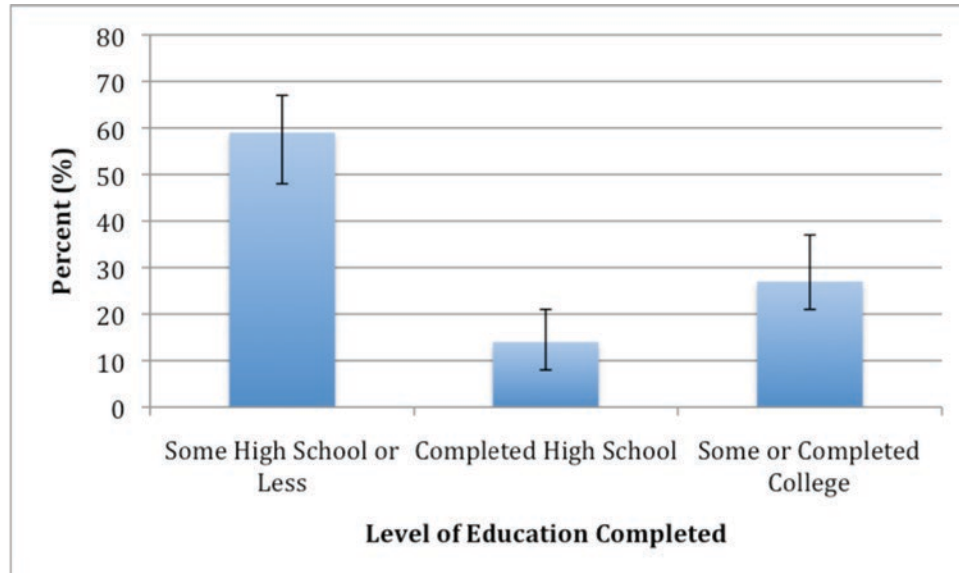
RESULTS

Overall, the Inuit adult population in Ottawa reported low levels of formal education. When asked the highest level of education completed, 59% had completed some high school or less and 14% had completed high school. About 27% of the population had completed some college or more. There were not statistically significant differences in levels of formal educational completion between males and females. (See Figure 9).

In comparison, among Ottawa residents over the age of 15, about 15% had no certificate, diploma or degree, 24% had completed high school, and about 55% had completed some college or more.<sup>14</sup>

It is clear that the Inuit population in Ottawa is experiencing major disparities with respect to access to and completion of formal educational programming compared to the general Ottawa population.

Figure 9. Level of Education for Inuit Adults, Our Health Counts



The OHC Inuit adult population in Ottawa was also asked to indicate their personal income for the past year. Strikingly, 69% of the adult population reported an income of less than \$20,000 in the past year. Furthermore, 54% of the population reported that did not have a wage-earning job.

In contrast, the median income among those 15 years and over in Ottawa was \$32,908 in 2005.<sup>14</sup> Furthermore, the unemployment rate in Ottawa was only 6.6% in 2010.<sup>14</sup>

Based on these findings, the unemployment rate among Inuit living in Ottawa is almost nine times that of the general Ottawa population. The extreme disparities in income and employment between Inuit and general Ottawa populations may partially be explained by the relative youth of the Inuit population compared to the general Ottawa population. Nonetheless,

the burden of low personal income and unemployment is exacerbated in the Inuit population because the majority of adults (54%) had at least one child living with them at the time of the survey. (See Figure 10 and 11).

Figure 10. Annual Personal Income for Inuit Adults, Our Health Counts

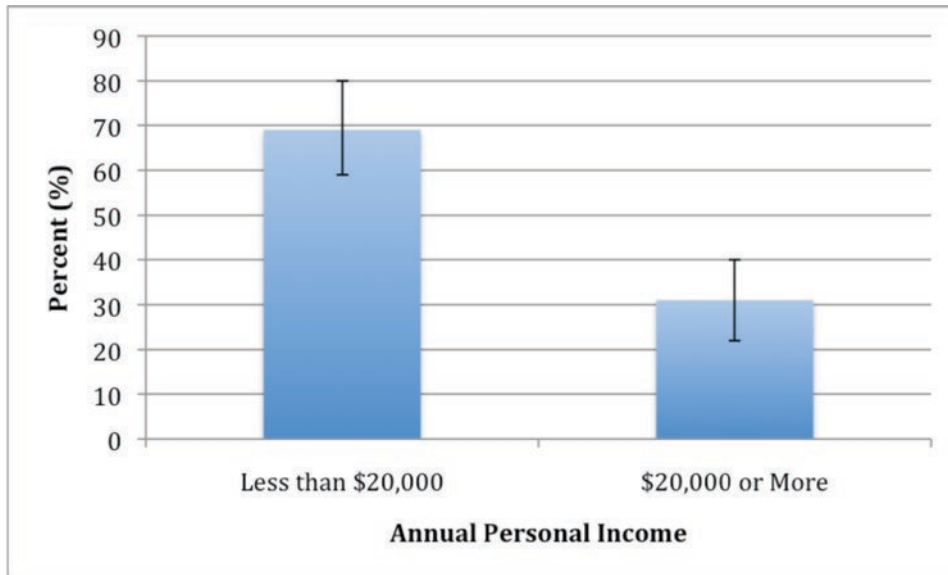


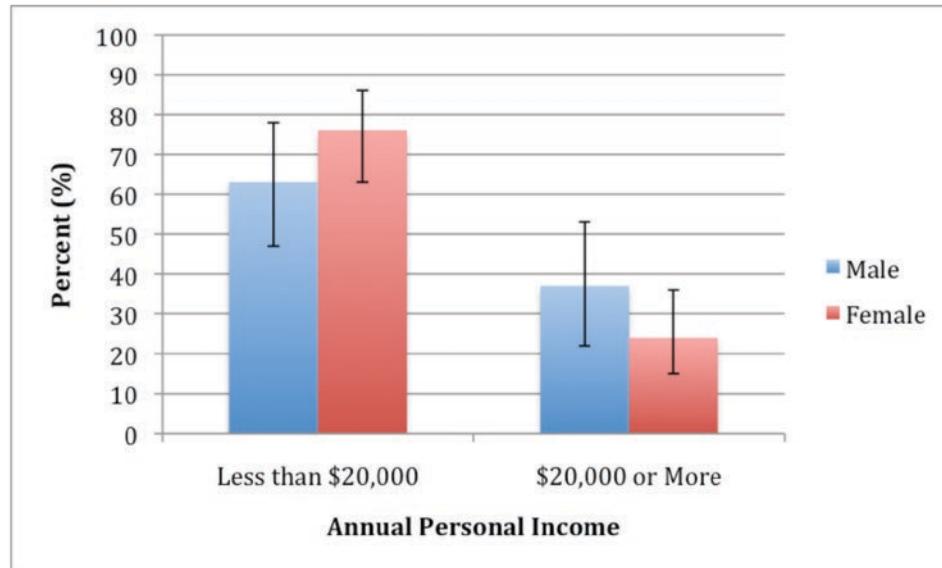
Figure 11. Wage-earning Employment among Inuit Adults, Our Health Counts





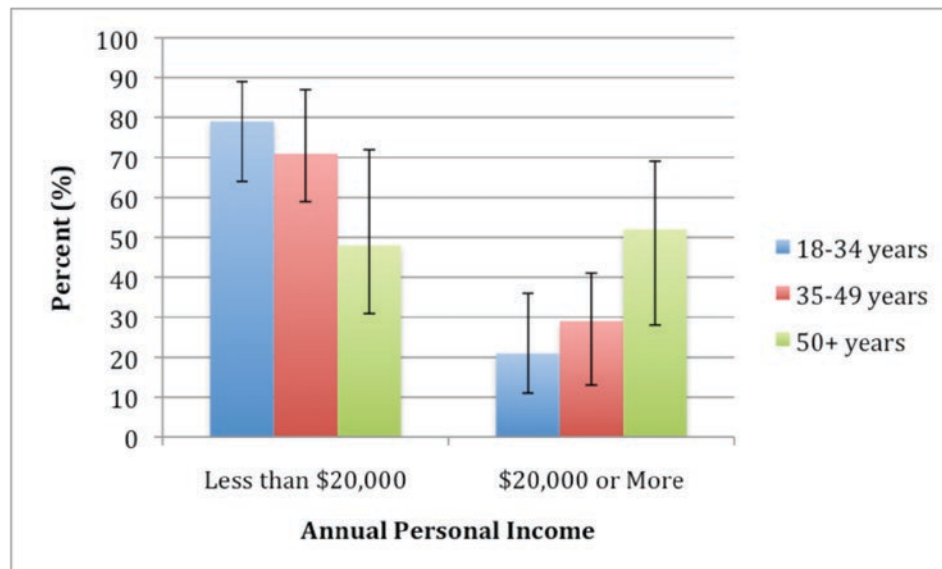
When the Inuit adult population in Ottawa was stratified by gender, we observed a trend towards more women in the lower income bracket. However, our sample was too small to know for certain. (See Figure 12).

Figure 12. Annual Income for Inuit Adults by Gender, Our Health Counts



When stratified by age, there was a trend towards older Inuit individuals earning more than younger individuals. However, again, our study was too small to know for certain. (See Figure 13).

Figure 13. Annual Income for Inuit Adults by Age, Our Health Counts

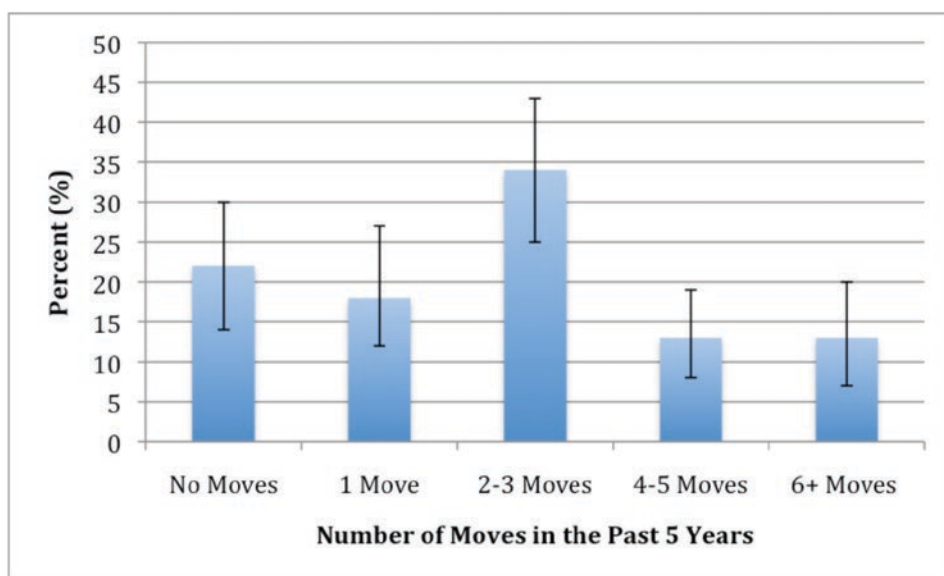


## SECTION 2: KEEPING WARM AND SAFE

### A. HOUSING

When OHC Inuit adult participants were asked how many times they had moved in the past 5 years, the following results emerged: 22% reported zero moves, 18% reported 1 move, 34% reported 2-3 moves, 13% reported 4-5 moves and 13% reported 6 or more moves in the past 5 years. Overall, 78% of the OHC population had moved at least once in the past five years. (See Figure 14). In comparison, only 43% of the Ottawa population over the age of 5 years had moved in the past 5 years.<sup>14</sup>

Figure 14. Number of Moves in the Past 5 Years for Inuit Adults, Our Health Counts



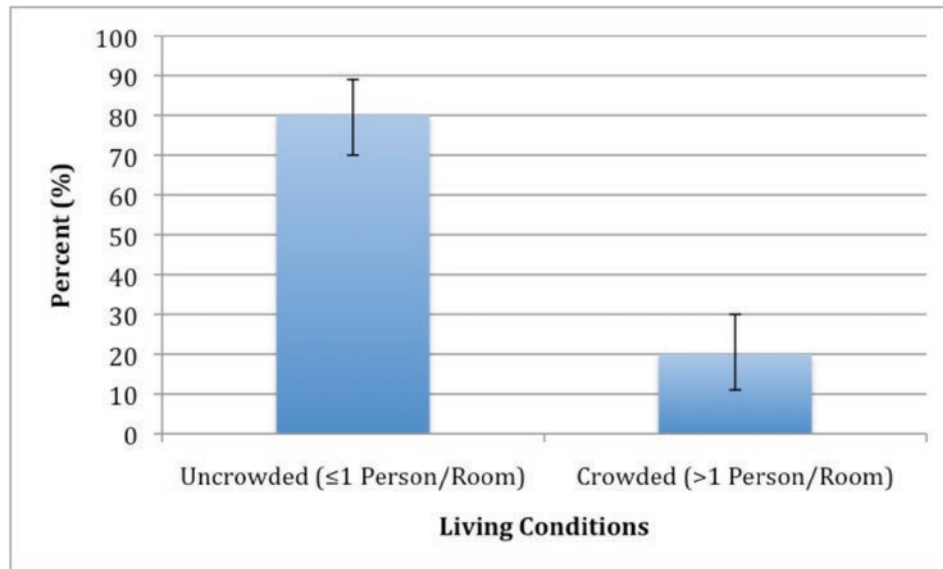
According to Statistics Canada, overcrowding in the population was calculated by dividing the number of rooms in each household by the number of people residing in the home. Crowded housing is defined as having more than one person per room. About 20% of Inuit persons in Ottawa live in crowded houses. (See Figure 15). In contrast, the proportion of individuals in Ottawa living in crowded housing was only 2.5%.<sup>14</sup>







Figure 15. Crowded Housing among Inuit Adults, Our Health Counts

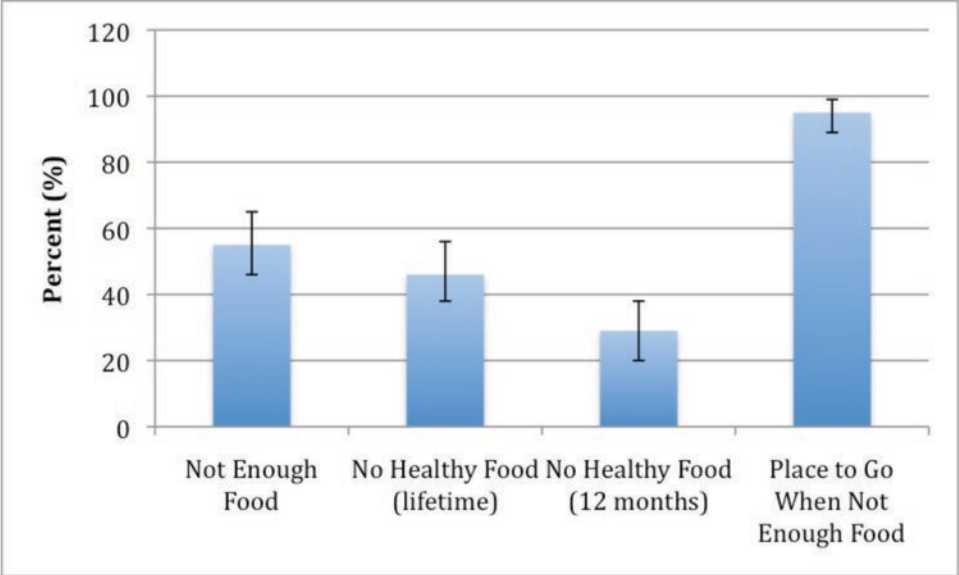


### B. FOOD SECURITY AND COUNTRY FOOD

We asked Inuit adults in Ottawa several questions regarding food security. When asked if there were times when the food for the household did not last and there was no money to buy more, about half the population (55%) reported yes. A similar distribution was observed when asked if there were times when participants could not eat healthy food in their lifetime (46% reported yes). When asked if there were times when the household could not eat healthy food in the last 12 months, 29% reported yes. Understandably, the proportion of persons unable to eat healthy food was smaller for the reference period of 12 months (29%) compared to a lifetime experience (46%). Despite the high proportion of individuals who did not have enough food or access to healthy food, 95% of participants said they had a place to go if they or their family didn't have enough to eat. (See Figure 16).

In contrast, 7.4% of the Ottawa population age 12 years and over reported to be food insecure in the past 12 months. This represents the proportion of individuals who felt that there was a compromise in the quality and/or quantity of food consumed, and/or reduced food intake and disrupted eating patterns.<sup>19</sup>

Figure 16. Food Security among Inuit Adults, Our Health Counts



**RESULTS**





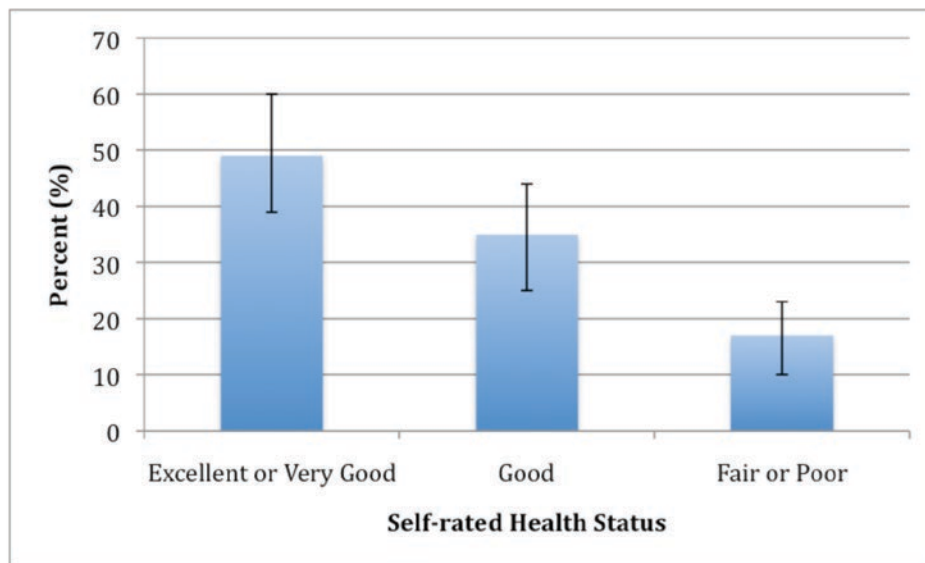
## SECTION 3: PHYSICAL HEALTH

### A. GENERAL HEALTH STATUS AND HEALTH LIFESTYLE

Close to one half (49%) of the adult Inuit population living in Ottawa reported excellent or very good health. About 35% reported good health and 17% reported fair or poor health. We did not observe significant differences for self-rated health status across gender. (See Figure 17)

In comparison, 62% of the general population in Ottawa 12 years and over reported excellent or very good health and 12% reported fair or poor health. (Statistics Canada, 2010-2011 Canadian Community Health Survey)

Figure 17. Self-rated Health among Inuit Adults, Our Health Counts



### B. CHRONIC HEALTH CONDITIONS

Rates of many chronic diseases in the Inuit adult population in Ottawa are high (See Table 1 and Figure 18). It is likely that rates of chronic disease are in fact higher among the Ottawa Inuit population as barriers to health services and formal diagnoses would have been more challenging before the establishment of the Family Health Unit at TI.

Among the Inuit adult population in Ottawa, about 25% reported they were told by a health care provider that they have high blood pressure, with similar rates reported by men and women across age categories. In comparison, 16% of the general adult population in Ottawa reported having high blood pressure (2009 Canadian Community Health Survey).

17% of Inuit living in Ottawa reported having been told by a health care provider that they have arthritis. Data from the 2009 Canadian Community Health Survey (CCHS) was comparable with 16.7% of the general adult (over 18 years) population in Ottawa having reported having arthritis (2009 Canadian Community Health Survey).

Among the Inuit adult population in Ottawa, about 6.7% of participants were told by a health care provider that they have chronic bronchitis, emphysema, or chronic obstructive pulmonary disease (COPD). Comparatively, 1.9% of the adult population in Ottawa reported having COPD, however, this estimate must be interpreted with caution as the sampling error was high (2009 Canadian Community Health Survey).

About 2.6% of the Inuit adult population in Ottawa reported having diabetes as diagnosed by a health care provider. In comparison, 6.1% of the general adult population in Ottawa reported having diabetes, however, again this estimate had high sampling variability (2009 Canadian Community Health Survey).

When asked if they had experienced any severe pain, such as headache, neck pain, or jaw pain in the past 12 months, 41% of the study population reported yes. There is a strong trend to suggest that younger Inuit between the age of 18 and 34 years were more likely to report severe pain (19%) compared to the population over 50 years (7.5%). According to the 2009 CCHS, 11.3% of the adult general population in Ottawa reported having migraines. While 1.8% of the adult Ottawa population reported severe pain, again this estimate has a high sampling error so must be interpreted with caution (2009 Canadian Community Health Survey).

Among the Inuit adult population in Ottawa, 4.7% reported having being told by a health care provider that they have heart disease. Among the general adult population in Ottawa, 3.7% reported heart disease (high sampling error). The self-reported rate of cancer in this population was 6.8%. As well, 30% reported having being told by a health care provider that they have allergies, with non-significant differences between men and women across the age categories.

*Table 1: Self-reported Chronic Health Conditions among Inuit Adults, Our Health Counts*

Chronic Health Condition	Self-reported Rate
Arthritis	17%
High blood pressure	25%
Bronchitis, Emphysema, or COPD	6.7%
Diabetes	2.6%
Severe pain	41%
Heart disease	4.7%
Cancer	6.8%
Allergies	30%

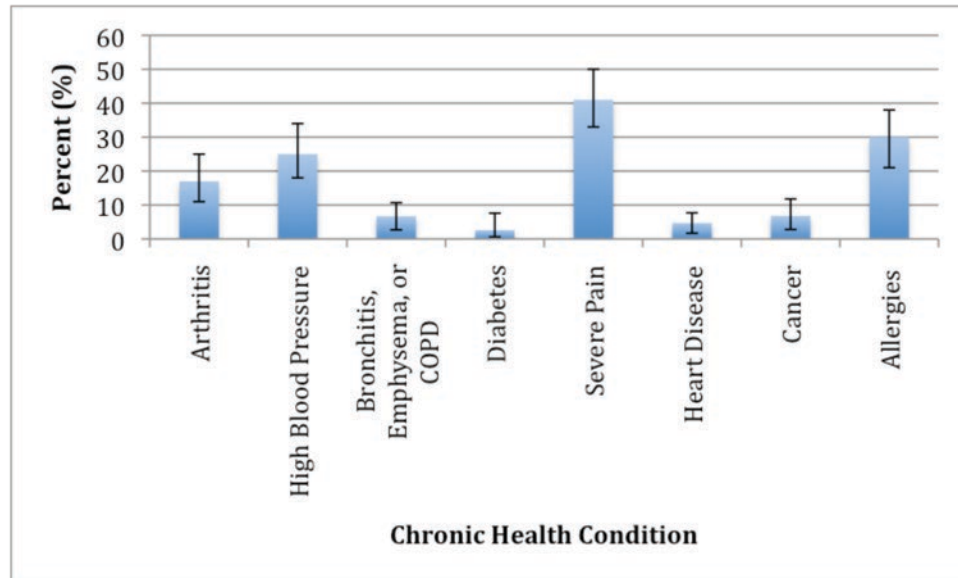




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RESULTS

Figure 18. Self-reported Chronic Health Conditions among Inuit Adults, Our Health Count

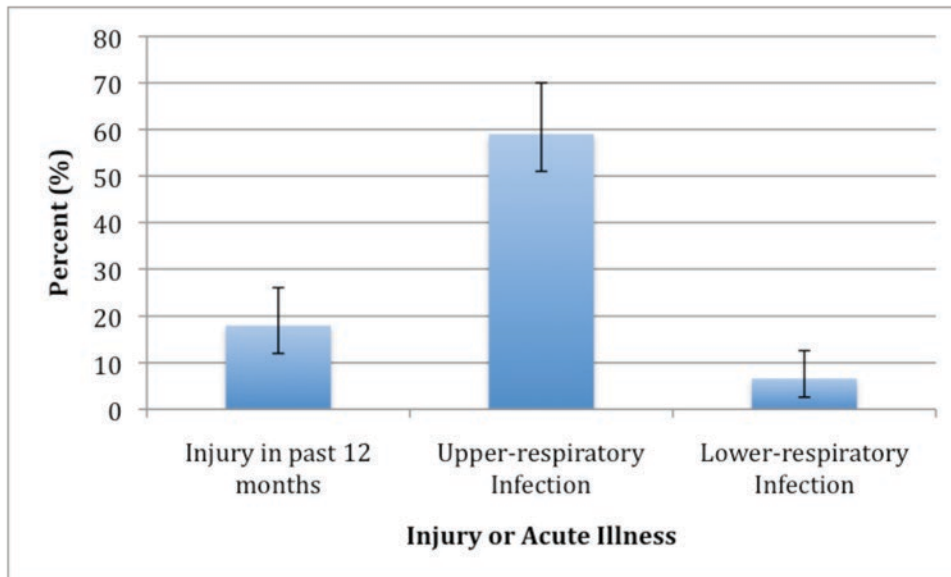


### C. INJURY AND ACUTE ILLNESS

About 18% of the adult Inuit population in Ottawa reported having an injury in the past 12 months. Although non-significant, there is a trend to suggest that younger participants experience more injury (26% of 18-34 year olds) compared to older participants in the population (15% of 35-49 year olds). Similarly, 17% of the general population in Ottawa 12 years and over reported having an injury in the past 12 months that caused limitation of normal activities and 17% had an injury in the past 12 months for which they sought medical attention.

The self-reported rate of upper-respiratory infection, such as cough, cold, bronchitis, ear infection, sore throat, or sinus infection in the past year was 59% of the Inuit adult population in Ottawa. There is no significant difference across gender or age. The self-reported rate of lower-respiratory infection in the past year was 6.6% of the adult Inuit population in Ottawa. (See Figure 17) Comparable self-report data regarding upper and lower respiratory tract infections for the general Ottawa population is not available. A telephone survey in the United States found that 72% of respondents reported that they had had a non-influenza related viral respiratory tract infection over the past year.<sup>20</sup>

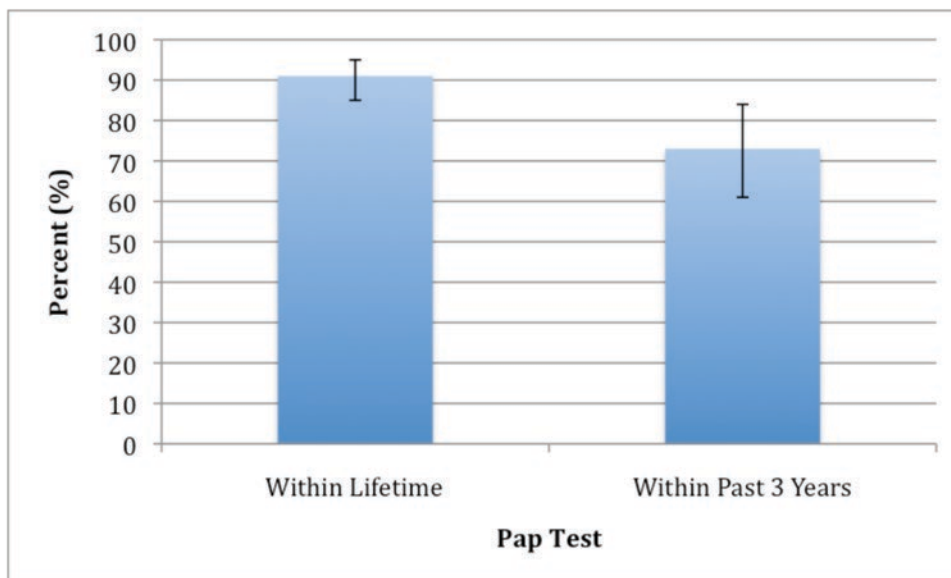
Figure 19. Injury and Acute Illnesses among Inuit Adults, Our Health Counts



#### D. REPRODUCTIVE HEALTH

Over 91% of Inuit female adults in Ottawa reported ever having a Pap test. Among these women, 73% reported having received a Pap test within the past 3 years. There was no significant difference across age groups. (See Figure 20) In comparison, 81% of women 18 years and over from the general Ottawa population had a Pap test within the past 3 years.<sup>21</sup> (Statistics Canada, 2010-2011 Canadian Community Health Survey)

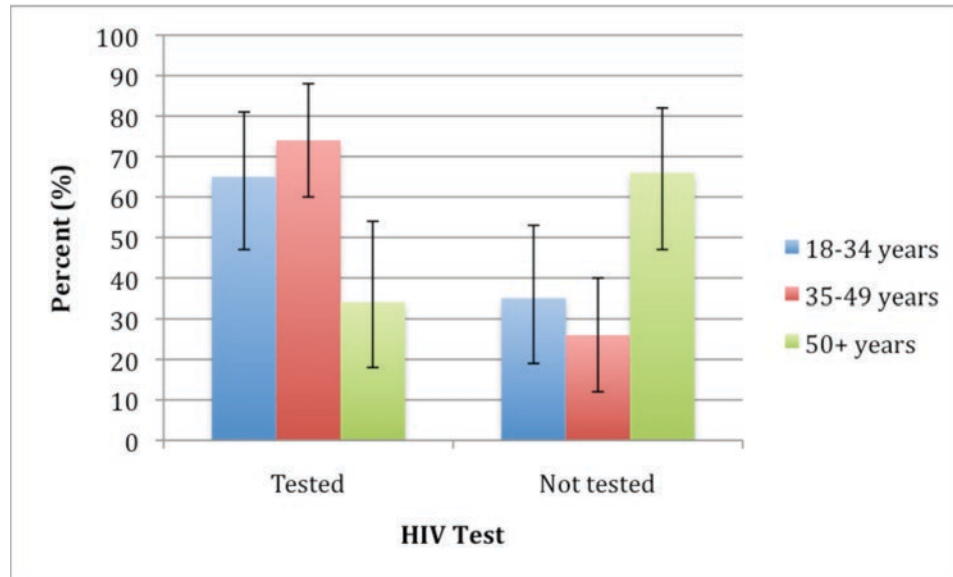
Figure 20. Receipt of Pap test among Inuit Adults, Our Health Counts





The proportion of Inuit adults in Ottawa who had ever received an HIV test was 62%. There was a significant difference across age groups. Specifically, 74% of individuals between 35-49 years reported receipt of an HIV test in their lifetime compared to 34% of those 50+ years. There was no significant difference across gender. (See Figure 21)

Figure 21. HIV Testing among Inuit Adults by Age, Our Health Counts



Among the Inuit adult population in Ottawa, 44% reported ever having a sexually transmitted infection (STI), however this may not be significant as confidence intervals were wide. Furthermore, there was no significant difference in proportion of STI across gender or age.

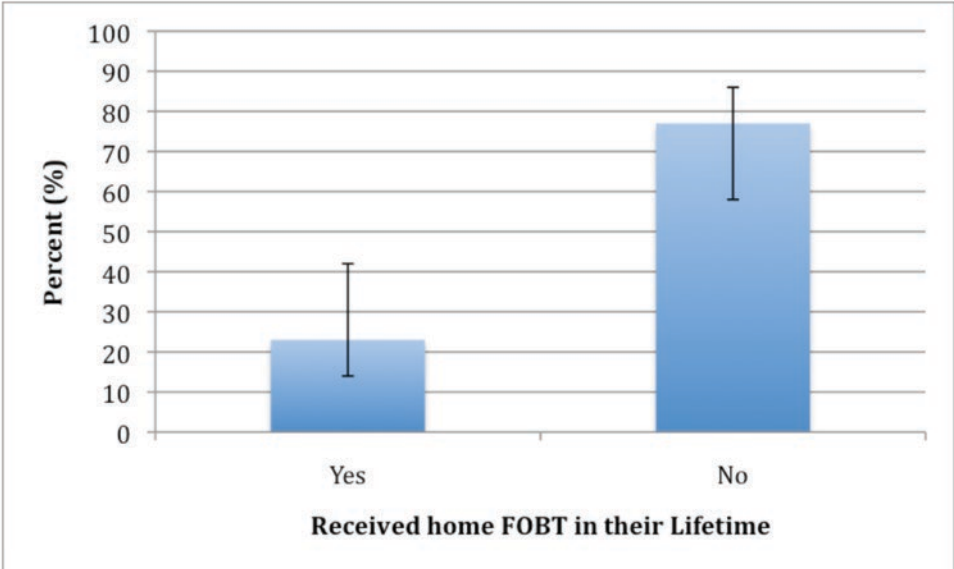
#### E. OTHER HEALTH SCREENING

Overall rates of health reviews and check-ups among the Inuit adult population in Ottawa were low. Less than half of Inuit adults (43%) reported receiving a full health review/check up with a doctor, nurse, or complimentary health practitioner in the past 12 months. While there is no significant difference across age, there was a significant difference across gender with 54% of women reporting receipt of an annual health check-ups compared to only 28% of men.

For the Inuit adult population in Ottawa over the age of 50, 23% indicated that they had received a fecal occult blood test (FOBT) to screen for colon cancer in their lifetime. (See Figure 22) In comparison, 41% of the general Ottawa population over the age of 50 reported they had received a FOBT in the past 2 years.<sup>22</sup> (Statistics Canada, 2007-2008 Canadian Community Health Survey)



Figure 22. Received a Home FOBT in their Lifetime among Inuit Adults, Our Health Counts



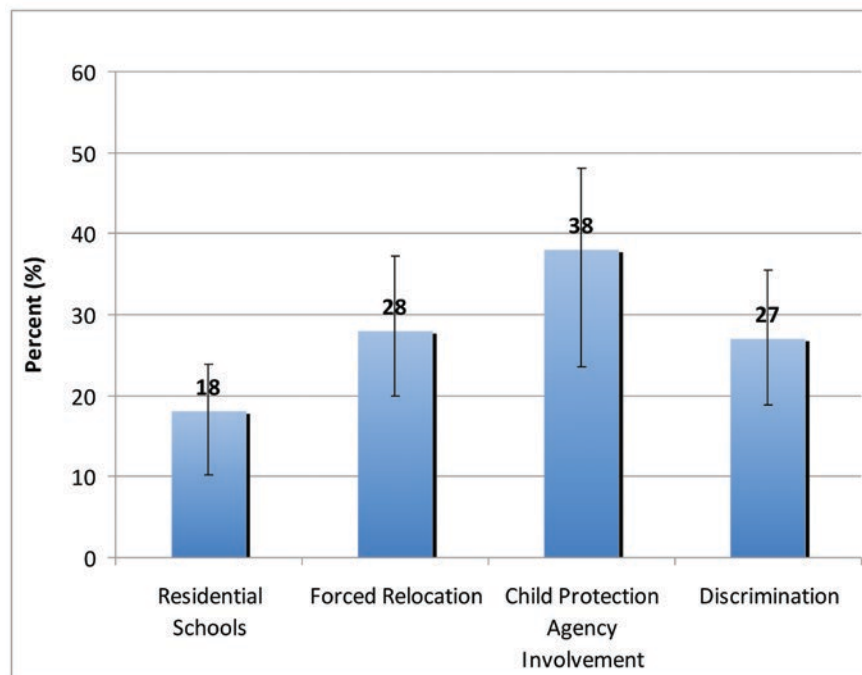


## SECTION 4: PAST EXPERIENCES, ABUSE AND TRAUMA

The current social challenges facing Inuit living in Canada's north are episodically brought to the attention to the rest of Canada by the media. Lacking from this coverage is any explanation for the roots of these challenges in colonial experiences and related historical trauma.<sup>1</sup> The Inuit Our Health Counts study demonstrates that unfortunately these social challenges and their roots in historic and ongoing trauma follow Inuit as they move south to live in cities like Ottawa. While strikingly elevated, these figures are likely underestimates due to the known tendency to underreport traumatic events and discrimination in survey research.<sup>23,24</sup> According to Inuit community research team members, this type of underreporting of negative events may be even more common for Inuit due to compounding cultural and language considerations.

Inuit in Ottawa reported very high levels of historical trauma (residential school attendance, forced relocation), child protection agency involvement and discrimination in accessing health and social services (figure 23).

*Figure 23. Residential School Attendance, Forced Relocation, Involvement with Child Protection Services and Experiences of Discrimination, Inuit Adults, Our Health Counts*



### A. RESIDENTIAL SCHOOLS

The first government-regulated school for Inuit opened in 1951 in Chesterfield Inlet. Around this time, almost all Inuit children were required to attend residential schools or federal hostels in order to receive a formal education and were sent far away from Inuit settlements. By 1963, 3,997 Inuit children were attending these schools and by June 1964, 75 percent of

<sup>1</sup> Historical trauma is defined by Dr. Maria Yellow Horse Brave Heart as a cumulative emotional and psychological wounding over the lifespan and across generations emanating from massive group trauma experiences (Brave Heart 1985)

Inuit children and youth aged 6 to 15 years were enrolled in the schools.<sup>25</sup> For the Our Health Counts study, just under one in five Inuit living in Ottawa (18%) reported that they had been a student at a federal residential school, or a federal day school (including schools administered by the church, federal government and provincial government).

Approximately half of Inuit who did attend residential schools reported a negative or mixed impact on their health and well-being. The trauma associated with Inuit residential and day schools has been well documented in the literature.<sup>26</sup>

## B. FORCED RELOCATION

Governmental attempts to relocate Inuit communities began in 1934 when 22 Inuit from Kinngait (Cape Dorset), 18 from Mittimatalik/Tununiq (Pond Inlet), and 12 from Pangnirtuuq (Pangnirtung) were transported to Dundas Harbour. Then, in the early 1950s, the Canadian government forced approximately 7 or 8 families to move from northern Quebec to Grise Ford on the southern tip of Ellesmere Island and to Resolute Bay on Cornwallis Island in an attempt to establish Canadian sovereignty in this region. Relocation to permanent villages in sites selected by the government was in complete opposition to Inuit livelihood and experience. Furthermore, the hunting conditions of the new sites were often suboptimal and interfered with the traditional food supply.<sup>27,28</sup> When asked about forced relocation, 28% of Inuit living in Ottawa reported they or members of their family were forced by the federal government to move from their respective community in the North to a new location chosen by the government. Currently, there is no comparable data on forced relocation at a national or regional level. The majority of Inuit living in Ottawa who had experienced forced relocation for themselves or their family described it as having a negative or mixed impact on their health. The devastating impact of having traditional economies and social foundations undermined has been linked to current day issues related to housing problems, overcrowding and substance use. This has been thoroughly documented in a number of important Canadian reports, including the Royal Commission on Indigenous Peoples, as well as internationally, with Inuit populations in Greenland and Denmark.<sup>26,29,30</sup>

## C. CHILD PROTECTION AGENCY INVOLVEMENT

38% of Inuit living in Ottawa reported child protection agency involvement with their family. While there is no Inuit specific comparable data, it has been documented that Indigenous children represent 48% of children who are in the care of child welfare agencies in Canada.<sup>5</sup> Furthermore, an analysis of the 2008 Canadian Incidence Study (CIS) of Reported Child Abuse and Neglect found that 22% of children under the age of 16 investigated by child welfare services in Canada because of suspected maltreatment were identified as Indigenous, a rate that is 4 times greater than for non-Indigenous children.<sup>31</sup>

Approximately half of the Inuit in Ottawa who reported child protection agency involvement in their family indicated that it had a negative or mixed impact on their health. Child apprehension and its impact on health has been explored in the mainstream literature. Recently, an article in the Canadian Medical Association Journal found that children and adolescents with a history of involvement in the child welfare system were at a greater risk of suicide and attempting suicide and had higher rates of hospital admissions and outpatient visits to a physician compared to children and adolescents not in care.<sup>32</sup>

## D. DISCRIMINATION

According to results, 27% of Inuit in Ottawa have been treated unfairly or kept waiting because they are Inuk by a doctor, nurse, dentist, law enforcement personnel, social worker,





lawyer, judge and/or other professional. Research has shown that experiences of discrimination will impact health care access, particularly among vulnerable and minority populations (Reference: Pitkin Deorse K, Bahney B, Lurie N, Escarce JJ. Review: Immigrants and Health Care Access, Quality. *Med Care Res Rev.* 2009;66(4).). After experiencing discrimination, people are less likely to go seek medical help. As well, there is new research showing that living with “perceived discrimination” can have an impact on health because it creates stress for these people.<sup>33</sup>

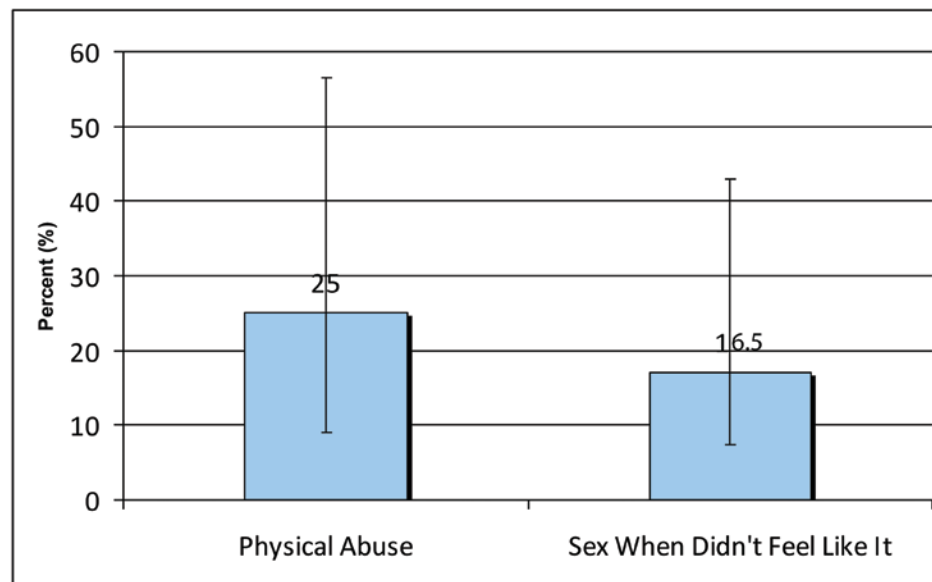
It is important to recognize that for Inuit, discrimination is often more systemic and manifests itself in unintentional, attitudinal discrimination that stems from cross-cultural misunderstandings. As one participant explained, “Inuit can see pain in other Inuit”. A non-Inuit individual, on the other hand, may be unable to recognize or read non-verbal cues and may think that individuals are well when they are actually experiencing pain.

### E. VIOLENCE AND ABUSE

One quarter (25%) of Inuit living in Ottawa reported that someone in their residence had physically hurt them. There was a fairly even split across age and gender for physical abuse. When asked if anyone in their residence had sex when they didn't feel like it, 16.5% answered yes (see figure 24).

Violence and abuse is a growing concern in Inuit society.<sup>34</sup> While the circumstances and context surrounding violence and abuse are extremely complex, there are potential links to loss of culture and tradition and intergenerational or historic trauma as well as high rates of incarceration for Inuit men, high rates of shelter use/unstable housing, alcohol and substance misuse and feelings of mistrust and powerlessness.<sup>34</sup> Currently however, there is a tremendous shortage of appropriate resources and services available for Inuit people in order to address issues surrounding violence and abuse in their communities.

Figure 24. Physical Abuse and Sex When Didn't Feel Like It, Inuit Adults, Our Health Counts



# SECTION 5: MENTAL HEALTH AND ADDICTION ILLNESSES

## A. MENTAL AND EMOTIONAL HEALTH

In order to assess depression and anxiety among study participants, we used the Kessler Psychological Distress Scale K-10. The K-10 Psychological Distress scale has been used extensively in population based studies around the world and has been used in the second phase (2008/10) of the First Nations Regional Health Survey (The First Nations Information Governance Centre).<sup>35,36</sup>

The K-10 Psychological Distress scale is considered a screening tool for psychological distress, specifically anxiety and depressive symptoms. High scores on this scale are often found in people who have been diagnosed with anxiety or mood disorders and who experience higher levels of impairment.<sup>37,38</sup> Participants were asked about how they have been feeling over the past 30 days with respect to the following 10 questions:

1. Tired out for no good reason?
2. Nervous
3. So nervous that nothing could calm you down?
4. Hopeless?
5. Restless or fidgety?
6. So restless you cannot sit still?
7. Depressed?
8. So depressed that nothing could cheer you up?
9. That everything is an effort?
10. Worthless?

Their responses were scored accordingly:

Answer	Score
none of the time	1
a little of the time	2
some of the time	3
most of the time	4
all of the time	5

For Inuit participants in the OHC study, the overall average score for psychological distress was 16 for the total sample and 15.03 for women and 17.75 for men. There were no significant differences across age groups or gender. As a comparison, the K-10 Psychological Distress Scale was used in a household survey of 8841 adults from Australia in 2007.<sup>39</sup> This Australian anxiety and depression data is used as a comparison here because it is a national sample that



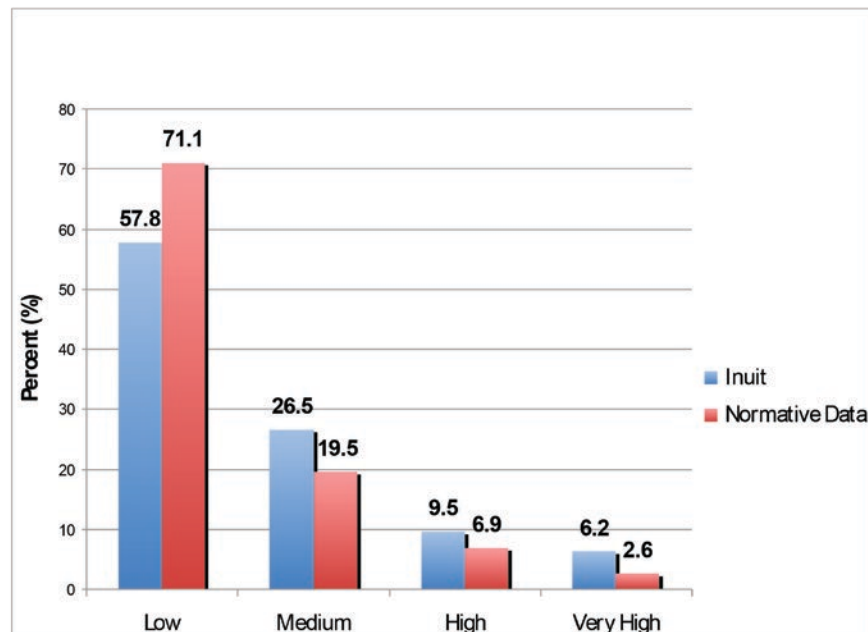


is considered normative, or typical of a population. The Australian mean scores were 14.0 (SE= .1) and 15.0 (SE= .1) for women and men, respectively.

As indicated by scholars in the field (Andrews 2001, Kessler 2002<sup>37,38</sup>), total scores (maximum score of 50 and minimum score of 10) can then be broken down into the following: low range (10-15), moderate range (16-21), high range (22-29) and very high range (30-50). For the Inuit in Ottawa, 57.8% of participants scored in the Low range, 26.5% scored in the Medium range, 9.5% scored in the high range and 6.2% scored in the very high range. From the normative sample of Australian adults described above, 71.1% of the sample scored in the Low range, 19.5% scored in the Medium range, 6.9% scored in the High range and 2.6% scored in the Very High range. Individuals who are experiencing more impact or more severe anxiety and depression are those who score in the high or very high category. Results from the 2008-10 Regional Health Survey among on-reserve and mostly non-urban First Nations indicated that 48.9% scored in the low range (0-5), 44.8% scored in the moderate range (6-19) and 6.3% scored in the high range (20 and higher) (RHS National Report 2012).<sup>40</sup>

When compared to the normative sample, we observed that more Inuit were in the high and very high range and fewer were in the low range (see figure 25). This means that a larger percentage of the Inuit population is reporting symptoms of anxiety and depression compared to a general, mainstream population. These increased percentages are commensurate with higher rates in other domains of the Inuit OHC study including related risk factors such as exposure to substances and/or abusive environments, historic and current trauma, lack of social determinants of health, and lack of access to targeted Inuit specific primary care services at the time of survey.

*Figure 25. Anxiety and Depression: Comparing Inuit Our Health Counts and Australian Normative Data*



## B. SUICIDE

Over three quarters of the Inuit population living in Ottawa reported that they had a close friend or family member who had committed suicide (77%). This was fairly evenly reported across gender and age categories. This result is striking. Suicide rates among Canadian Inuit are comparable to some third world and developing nations. The suicide rate for 15- to 24-year-old men is 28 times higher than the national rate. For Inuit in general, the suicide rates are 60 and 75 per 100,000 people; compared with mainstream Canadian rates of 15 per 100,000 people.<sup>41</sup> These rates are increasing, reported at 11 times the national rate in 2005 at 135/100,000.<sup>42</sup> The number of suicides among Inuit is rising and the average age is dropping. Suicide deaths in Nunavut and Nunavik has more than doubled in the past decade.<sup>43</sup>

## SECTION 6: ACCESS TO HEALTH SERVICES

Participants were asked to rate the availability of health services in their community (see figure 26). Just under half (43%) rated their level of access to health care as fair or poor, despite the geographic proximity to extensive mainstream and FN Indigenous health and social services offered in the City of Ottawa. This suggests that geographic proximity does not directly translate into accessible services for Inuit in Ottawa.

Figure 26. Availability of health services in your community, Inuit Adults, Our Health Counts



As described in more detail below, through the ICES linkage, we observed that between April 1, 2008 and March 31, 2010, rates of multiple Emergency Room visits for Inuit (ages 18-54) in Ottawa were over 10 times higher than general population rates for Ontario and Ottawa. These disproportionately high emergency room use rates and the absence of a similar disproportion in hospital admission rates are also indicative of poor access to primary health care service for Inuit living in Ottawa.







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The average life expectancy for the Inuit is 62.4 years, or 15 years less than the general Canadian population.<sup>44</sup> This, compounded by the additional barriers to health evidenced in the Inuit OHC survey results, suggests that effective access to health services for the Inuit population requires aggressive upstream strategies to overcome the intense challenges faced. For example, co-morbidity of chronic illnesses is of increasing concern as 34% of Inuit children and adults have one or more Long Term Health condition.<sup>30,45</sup> The adverse impact of the urban environment can additionally be expected to contribute to a surge of diabetes in the local Inuit population and there has been a sharp rise in colorectal cancer since 1989.<sup>46</sup> Concurrent respiratory infections, infectious diseases and pain also elevate the burden of illness and maternal and child mortality and result in corresponding access issues. For example, the prevalence of tuberculosis, at 184 cases per 100,000 is 38 times higher than the national average.<sup>47,48</sup> In addition, lung cancer rates for Inuit men and women are the highest in the world, and on the rise.<sup>46</sup>

Infant mortality for the Inuit is almost four times greater than the national average.<sup>16</sup> This imbalance is similar to the comparison of the Champlain region, where the average infant mortality rate was 5.3 in 2003, compared to 13.9 /1000 for Inuit in this region.<sup>49</sup> This high burden of poor health is exacerbated by linguistic and cross-cultural barriers in accessing health care for the Inuit population (e.g. trust with the TIFHT provider team builds adherence to care plan).

Concurrent health conditions can result in a complexity of health care needs and can lead to many challenges around navigating the system and receiving appropriate care and support. This was clearly expressed by an Inuit community member:

#### **Lack of continuity of primary health care as a barrier to accessing care: “Bouncing around between specialists”**

“They tell me I have to have a family doctor but I tell them I don’t have a family doctor”.

As the TI family health team has expanded it has been able to address major gaps in the continuity of primary health care, including long waiting lists and access to physicians.

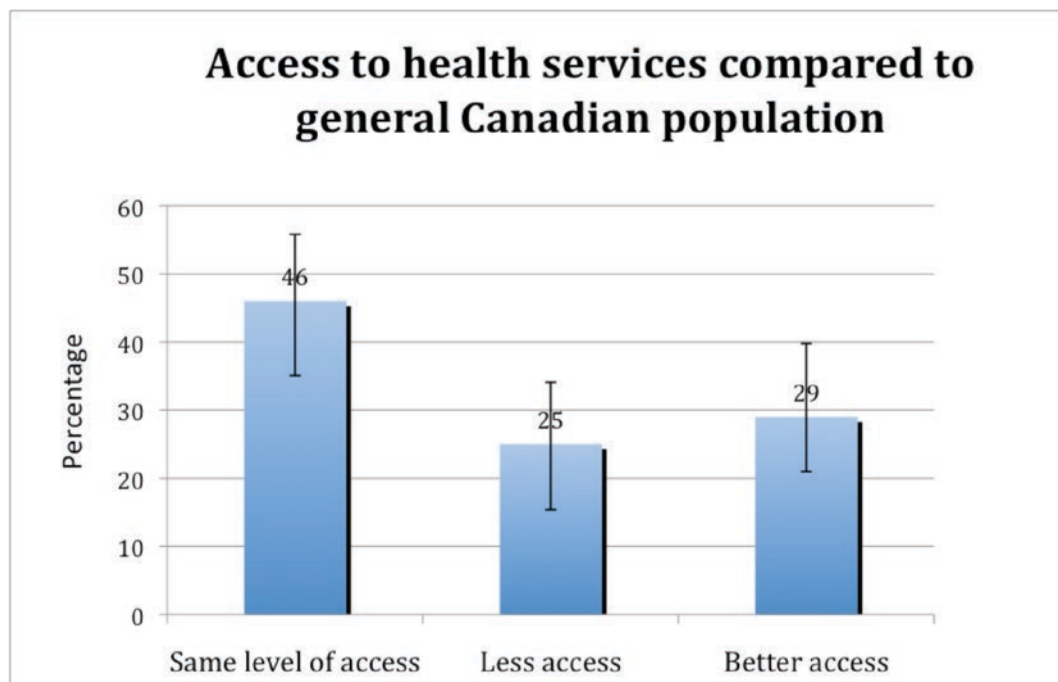
For example a middle-aged community member had an extensive medical file, which took the family physician at the TI family health team over two hours to sort through upon intake. This individual had been to a number of orthopedic specialists and required surgery for a number of years. She had also been trying to get the results of a number of tests, but was told by the specialists to go see her primary care provider. She told them that she didn’t have a family doctor, but they didn’t seem to take this into account and persisted in referring her back to a primary health care provider who did not exist. This cycle continued for a number of years. During this time the client was in considerable discomfort and unknowingly making her issues worse by weight-bearing on the wrong leg. With the help of TI family health team she has since been referred and received surgery.

The TIFHT clinical practice has confirmed that many Inuit patients have “high pain thresholds” and do not readily verbally articulate pain to health care providers even when it is significant. Similarly, conditions such as arthritis, gout, and inflammation may remain unreported and undiagnosed for years. This is in part responsible for the late or end stage diagnosis of many conditions such as arthritis, rheumatism and cancer where symptomatic pain is an early indicator.

Participants were further asked to rate their level of access to health services compared to the general Canadian population (see figure 27). 46% of the Inuit population living in Ottawa felt they had the same level of access, while 25% felt they had lower access and 29% felt they had better access as compared to the general population.

We note that the extremely high levels of social adversity that we have documented in earlier sections of this report, multigenerational trauma, and past experiences of living in northern remote communities where health care access is geographically difficult may have resulted in lowered expectations of health care access compared to those of non-Inuit Ottawa residents.

*Figure 27. Access to health services compared to general Canadian population, Inuit Adults, Our Health Counts*



Inuit living, working, and/or using services in Ottawa experienced a number of barriers in accessing health care (Figure 28). For example, close to half reported that long waiting lists were a barrier. Other commonly experienced barriers included doctor not available; needing a follow-up or a reminder call; not being able to afford direct costs and/or transportation; and difficulty accessing traditional Inuit medicine.

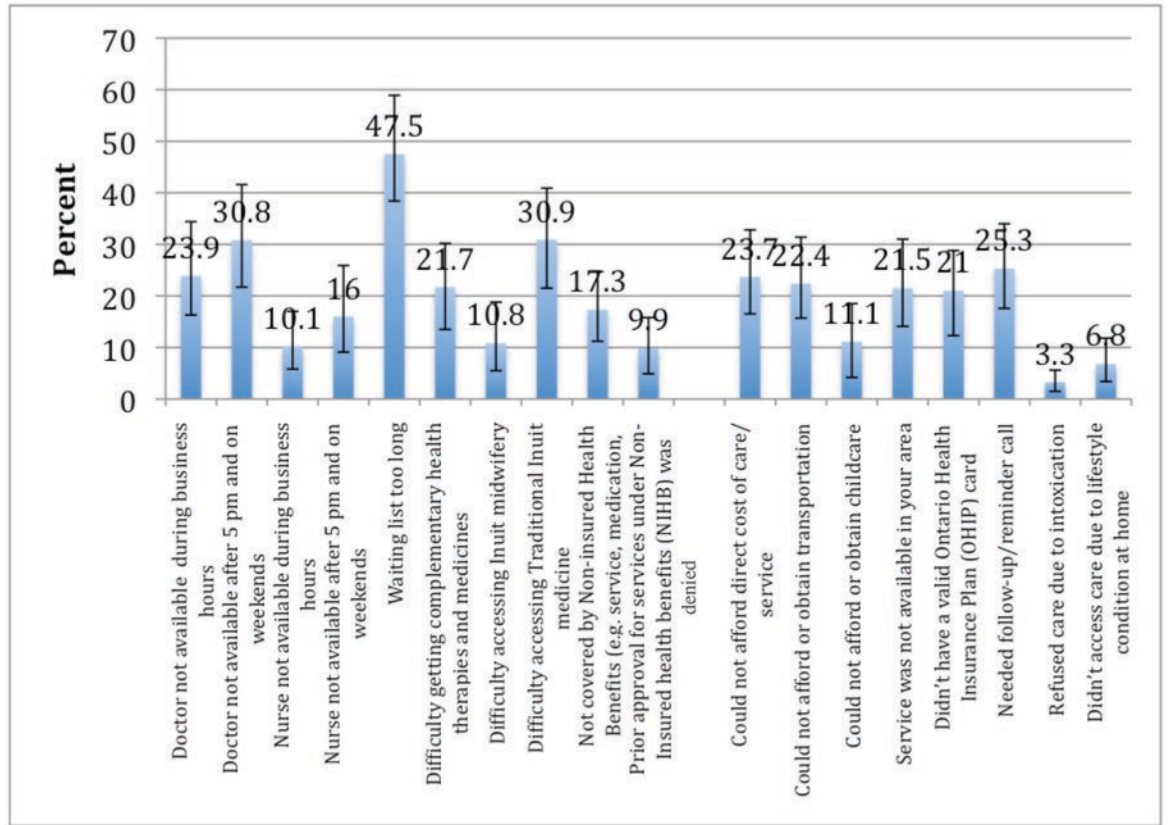




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Figure 28. Barriers to receiving health care in past 12 months, Inuit Adults, Our Health Counts



As described by an Inuit youth, lack of identification can also be a barrier to accessing health care services.

### Lack of identification as a barrier to accessing health care

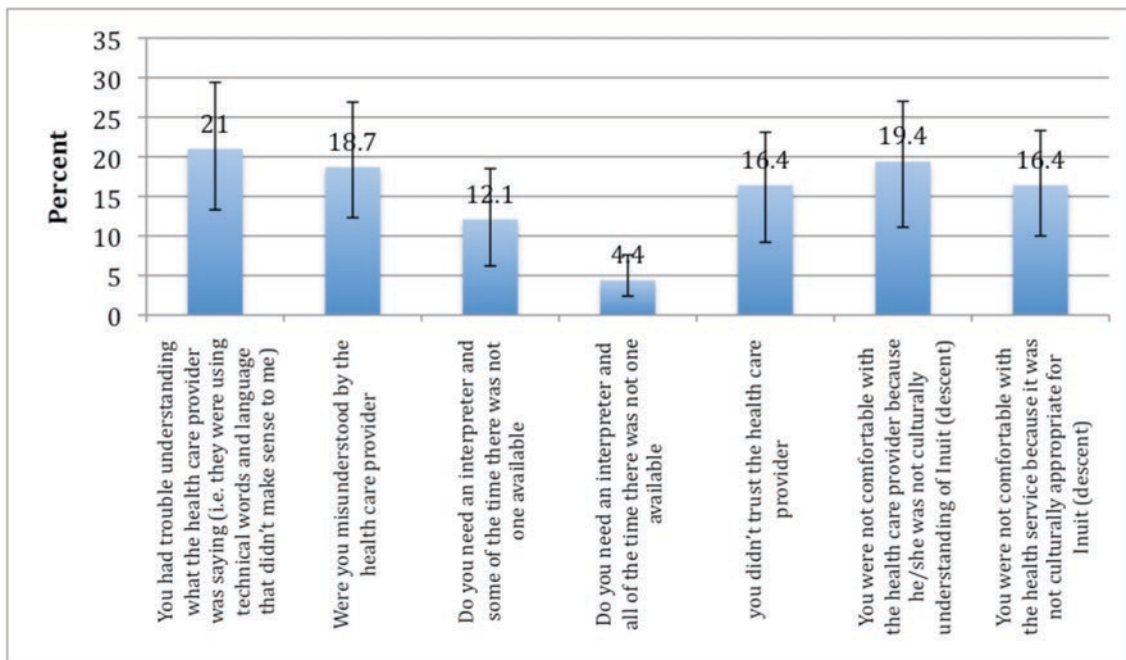
Lack of identification is a common issue that presents a barrier to accessing health service for Inuit living in Ottawa. People may have lost their ID, had it stolen or never had ID, including health cards. It can be especially hard for people who are homeless, transient or experiencing mental health and/or addiction issues and/or family violence to keep their ID safe.

For example, a 13 year old youth survey participant who had been born in Ottawa and custom adopted by an immediate family member, didn't have a health card. In fact, according to her adoptive parent she had never had a health card and hadn't been accessing health services that required a health card. With the help of the TI family health team, she now has applied for her Ontario health card.

We also asked members of the Ottawa Inuit community more specifically about cross-cultural barriers in accessing healthcare experienced in the past 12 months (Figure 29). The two most commonly reported cross-cultural barriers to accessing care among Inuit in Ottawa were trouble understanding what the health care provider was saying (i.e. they were using technical words and language that didn't make sense) and being uncomfortable with the health care provider because he/she was not culturally understanding of Inuit.

According to Canadian census, a total of 86.4% of the general Ottawa population reported having a regular medical doctor and 84.7% had contact with a medical doctor in the past 12 months.<sup>49</sup>

Figure 29. Cross-cultural barriers to accessing health care, Inuit Adults, Our Health Counts



We note that in addition to under-reporting for the reasons described earlier on in this section, Inuit participants may have additionally under-reported barriers to accessing health care due to cultural norms of non-complaint.

One narrative of an older Inuit woman illustrates some of the barriers around cultural safety and health literacy:





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### **Cultural safety and health literacy in English as barriers to accessing health care**

Many community members, especially Elders, reported that they were not comfortable accessing mainstream health care services. This is not exclusively due to language barriers. While language barriers and the shortage of qualified cultural interpreters are definitely a major health care access issue among Inuit in Ottawa, there are also issues of cultural security and specific comprehension of English medical terminology. Community members who are able to fluently speak both English and Inuktitut may still struggle with understanding what their health care provider is telling them about their health, including understanding their diagnosis and treatment plan. Furthermore, the relatively high rates of experiences of personal and historic trauma and/or unfair, discriminatory treatment by professionals may interfere with trust and rapport building cross-culturally with new or unknown health care professionals. Some community members may simply avoid interacting with the mainstream health care system until they have an urgent or emergent health concern.

For example, a 55 year old female community member hadn't seen any type of health care provider for 35 years. This woman is literate in both English and Inuktitut and has worked in the community as a service provider. Finally she attended an H1N1 clinic that was run by the TI family health team. During this clinic visit, it became apparent that she had a very extensive medical history that had not been attended to, including chronic hepatitis, a past history of tuberculosis, and orthopedic problems that were causing her daily discomfort. She had been hiding her lack of comprehension of her medical problems, not wanting to impose on others. She was quite apprehensive about having her blood work done, but this was mitigated by having a trusted and known health care provider from the TI family health team accompany her to the outside lab.

Over half (55%) of the Inuit population in Ottawa had spent one night or more as a patient in a hospital at any time in the past 5 years. This is very high compared to the general Ontario rate of 15%. Unfortunately, 43% of those who had been hospitalized found the quality of their care unsatisfactory (fair or poor) (see figure 30).

Figure 30. Quality of hospital care received, Inuit Adults, Our Health Counts



There appears to be a significant problem with the perceived quality of hospital care for Inuit in Ottawa that requires further investigation. This is clearly illustrated by the following narrative that describes the experiences of two elderly Inuit living with cancer.

**Jurisdictionally fragmented care**

In Canada, jurisdictional complexities can result in double standards in the provision of health care for Indigenous and non-Indigenous peoples. Arguments between the provinces, territories and federal government regarding who holds the responsibility for health care costs can result in unacceptable or delayed care.

For example, two study participants were Elders over the age of 50 years who had incurable cancer and were receiving inpatient hospital treatment at the time of the survey. These community members both described how the health care system had arranged for them to be flown from the hospital in Ottawa to Nunavut after being in the Ottawa hospital for three months in order to ensure that their Nunavut Health coverage did not lapse even though they were very ill. Adding to the anxiety and discomfort caused by this socially and medically unnecessary travel was the fact that they did not speak English and they did not understand what kind of cancer they had or what treatment they were receiving.





A total of 37% of the Inuit population in Ottawa reported that they had accessed emergency care for themselves in the past 12 months. This is consistent with the findings of our ICES linkage, (reported in the next section) which found that half of the Inuit population had accessed emergency care for themselves in the past 24 months at least once. According to the health survey, a higher percentage of women (48%) reported emergency care access in the past year as compared to men (23%). When asked to rate the quality of emergency care received, 77% reported excellent or good care compared to 23% who reported fair or poor care.

When asked if they used health or social services/programs in the city of Ottawa, 72% of study participants answered yes. There were no significant differences across age or gender for participation in services and programs in the city of Ottawa.

### ICES DATA LINKAGE

Using health card numbers provided by study participants, a successful link to data at the Institute for Clinical Evaluative Sciences was completed. Specifically, 328 (96.2%) of adult participants consented to baseline or more data linkage. Among these, 20.7% were not linked to the ICES database, 56.1% were directly linked via OHIP number, and 23.2% were probabilistically linked using demographic information. This resulted in a total ICES adult sample size of N=260, with a maximum working sample size of N=259 due to item-missing data. The large number of unlinked participants is due to the fact that ICES records can only be acquired for persons with OHIP numbers. Unfortunately due to limitations of the ICES database, we were not able to successfully link for persons who were living, working or obtaining health and/or social services in Ottawa but had an out of province (i.e. Nunavut) health card.

The data estimates generated through this linkage consist of the following: neighbourhood income quintiles (based on the 2006 Census and participants postal codes listed in their OHIP record), emergency room admissions over the previous 2 years, hospitalizations over the past 5 years, Pap smear in the previous 3 years and colorectal screening over the previous 2 years. The data presented here compare the Our Health Counts population estimates with the total Ottawa population and a random subset of 10% of the Ontario provincial population. Again, it should be noted that when data was sufficient, the Our Health Counts numbers are RDS-adjusted and corresponding 95% confidence intervals are provided.

### SOCIODEMOGRAPHICS

The gender breakdown for the Inuit population as compared to the general Ottawa and Ontario populations was very similar, with slightly more women than men.

Overall, the Ottawa Inuit population was younger than the Ottawa and Ontario populations, with fewer elderly over the age of 65 and a concentration of adults under 55 years. These findings are fairly consistent with the 2006 Canadian Census which found that, the median age of the Inuit population was 22 years, compared with 40 years for non-Indigenous people.

When comparing income quintiles, we observed that 41.5% of the OHC population fell into the lowest income quintile compared to 16% of the general Ottawa population and 20% of the Ontario population. Almost a quarter of the Ottawa population and 20% of the Ontario population were earning in the highest income quintile compared to only 1.5% of the Inuit population.



Table 2. Gender, Age and Income Quintiles for Our Health Counts Inuit, Ontario-10% and the city of Ottawa

Characteristic	Sample							
	Our Health Counts		OHC-RDS-Adjusted		Ontario-10%		Ottawa	
	Total N	Column %	Col%	95% C.I.	Total N	Column %	Total N	Column %
ALL	314	100			1,324,241	100	966,140	100
<b>Gender</b>								
Females	187	59.6	51.9	[38.3, 62]	673,125	50.6	49,5315	51.1
Males	127	40.4	48.1	[38, 61.7]	651,116	49.4	47,0825	48.9
<b>Age at 2010-04-01</b>								
18-34	91	29	35.4	[25.5, 50.5]	307,751	30.7	228,664	32.1
35-54	133	42.4	50	[34.5, 60.5]	428,129	42.7	306,837	43.1
55-64	27	8.6	12.4	[5, 21.9]	165,629	16.5	112,999	15.9
65-74	7	2.2	0.2	[0.2, 5.2]	100,817	10.1	64,061	9
<b>Income Quintiles</b>								
1- Low	135	43	41.5	[28.1, 52.1]	259,314	19.4	155,786	16.5
2	103	32.8	33	[24.2, 48.7]	259,097	19.7	166,691	17.8
3	38	12.1	12.4	[4, 16.2]	262,806	19.8	176,614	18.5
4	21-25	6.7-8	11.6	[5.1, 23.1]	272,676	20.5	227,552	23
5-High	1-5	0.3-1.6	1.5	[0, 4]	266,340	20.2	239,143	24.2

### EMERGENCY ROOM VISITS

Overall emergency room visits and visits for both acute and non-acute illnesses were much more frequent among the Inuit population as compared to the general Ottawa and Ontario populations. A total of 14% of the Inuit population in Ottawa visited an emergency room more than 6 times in the previous 2 years compared to 0.9% and 1.9% of the Ottawa and Ontario populations respectively.





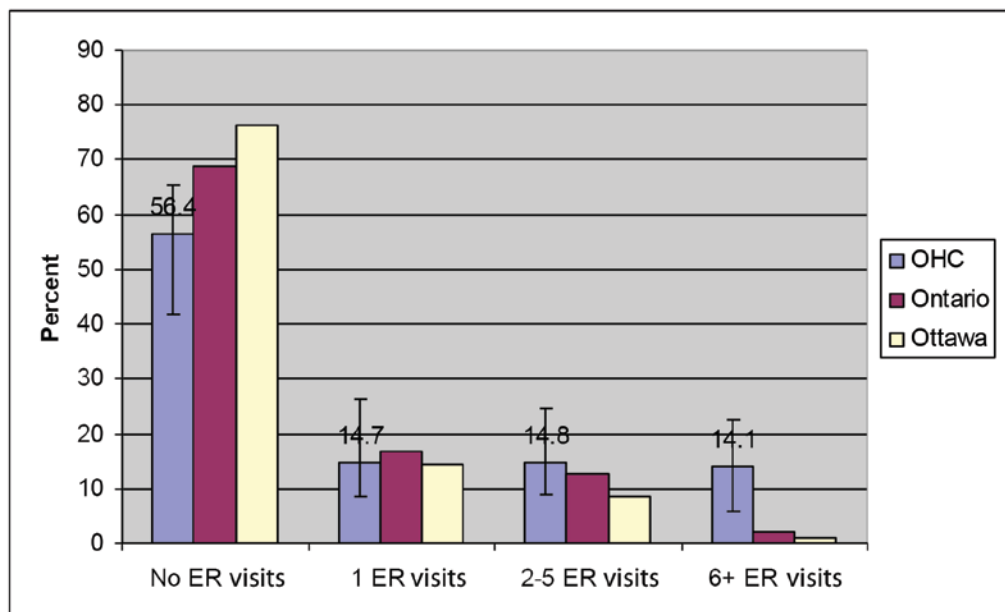
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Table 3. All Emergency Room Visits – Percentage of Population with 0,1,2-5 or 6+ total ER visits in the Previous 2 Years for Inuit adults aged 18 – 54 years, OHC

Frequency of ER visits	Sample							
	Our Health Counts		OHC-RDS -Adjusted		Ontario-10%		Ottawa	
	Total N	Column %	Col%	95% C.I.	Total N	Column %	Total N	Column %
ALL	222	100			715,984	100	521,735	100
None	108	48.6	56.4	[42, 65.4]	493,190	68.9	397,573	76.2
1	38	17.1	14.7	[8.2, 26.5]	119,487	16.7	74,482	14.3
2-5	53	23.9	14.8	[8.8, 24.8]	89,454	12.5	44,762	8.6
6+	23	10.4	14.1	[5.6, 22.6]	13,853	1.9	4,918	0.9
ER visits (acute)								
None	125	56.3	61.8	[48.5, 71.4]	575,222	80.3	436,865	83.7
1	36	16.2	13.8	[7.2, 24.5]	92,401	12.9	58,089	11.1
2-5	42	18.9	15.2	[8.3, 26.5]	44,356	6.2	24,654	4.7
6+	19	8.6	9.2	[3, 14.6]	4,005	0.6	2,127	0.4
ER visits (non-acute)								
None	165	74.3	76.2	[65, 85.5]	576,762	80.6	454,877	87.2
1	31	14	10.1	[3.9, 15.6]	89,243	12.5	49,185	9.4
2-5	21-25	9.5-11.3	11.3	[5, 22.1]	45,105	6.3	16,874	3.2
6+	1-5	0.5-2.3	2.3	[0, 7.8]	4,874	0.7	799	0.2

Figure 31. None, 1, 2-5 and 6+ Emergency Room visits in the previous 2 years for OHC, Ontario and Ottawa



## HOSPITALIZATIONS

Rates of hospitalization for Inuit in Ottawa were comparable to the Ontario population and general Ottawa population. In the previous 5 years, 15% (95% C.I. [8.9, 24.3]) of Inuit between 18 and 74 years of old visited the hospital 1 time compared to 12.5% of the Ontario population and 9.5% of the Ottawa population (Table 4).

Table 4. Hospitalizations – Percentage of Population with none, 1 or 2+ total hospitalizations in the Previous 5 Years for Inuit adults aged 18 – 74 years, OHC

Frequency of Hospitalizations	Sample						
	Our Health Counts	OHC-RDS-Adjusted		Ontario-10%		Ottawa	
		Total N	Column %	95% C.I.	Total N	Column %	Total N
ALL	259	100		1,093,413	100	769,511	100
None	177	79.5	[68.8, 86.5]	887,462	81.2	661,461	86
1	54	15.1	[8.9, 24.2]	136,155	12.5	73,200	9.5
2+	28	5.4	[2.6, 9.9]	69,796	6.4	34,850	4.5

## PREVENTATIVE SCREENING

Our data indicate a trend that Inuit women in Ottawa are receiving fewer pap smears in the previous 3 years, compared to women in Ottawa and Ontario (48% for Inuit women in Ottawa compared to 62% and 64% for Ontario and Ottawa women respectively).

According to the OCH survey 73% of Inuit women living in Ottawa self-reported have PAP screening in the past 3 years, which is significantly higher than our point estimate. However the Canadian Community Health Survey reported that 81% of women living in Ottawa reported having a PAP smear in the past 3 years – also significantly higher than the 64% for this population indicated by the ICES data. At least some of the disparities between self-report survey data and the ICES data are because the ICES dataset doesn't capture PAPs done in hospital based clinics.

Both the ICES dataset and the survey results indicate that Inuit women in Ottawa are receiving fewer PAP smears than the general population of women in Ottawa. This puts Inuit women in Ottawa at a disproportionate risk of cervical cancer.





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RESULTS

Table 5. Number of women between 18 and 69 years who had a pap smear in the previous 3 years among OHC, Ontario and Ottawa populations.

Pap in Prev. 3yrs					
	RDS Adjusted OHC			Ontario-10%	Ottawa
	%	Lower	Upper	%	%
All	47.9	36.9	68.1	62.3	64.4
18-34	43.1	17.1	70.6	59.5	59.4
35-49	44.8	34.2	82.6	67.1	67.9
50-69	58.2	24.5	85.8	60.3	66.2

### COLORECTAL SCREENING

As illustrated by our data, there is a trend to indicate less colorectal screening among Inuit adults over the age of 50 years of age compared to Ontario and Ottawa populations of the same age categories. Further investigation that includes a larger number of Inuit adults is required.

Table 6. Colorectal screening for adults over 50 years among OHC, Ontario and Ottawa populations

Any Colorectal Screening in Previous 2 years					
	RDS Adjusted OHC			Ontario-10%	Ottawa
	%	Lower	Upper	%	%
All	9.8	0.8	25.5	20.9	21.8
50-59	7.7	0.9	19.4	18.6	19
60-74	25.1	0	67.3	23.6	25.7

# POLICY RECOMMENDATIONS

## LARGE, YOUTHFUL, AND MAJORITY PERMANENT RESIDENT INUIT POPULATION

The Our Health Counts Ottawa Inuit study confirmed Inuit community service provider evidence that the size of the Inuit population in Ottawa is much larger than Statistics Canada estimates – in fact four times larger. We have also demonstrated that this is a growing and youthful population and that **40% of the adult Inuit population in Ottawa was under the age of 35** (compared to 17% of the general Ottawa population). **Over half (56%)** of Inuit adults in Ottawa report Ottawa as their permanent residence.

*Based on these findings we recommend:*

1. An immediate revision of local, municipal, provincial, and federal policy, planning, programming and linked funding formulas for all services to reflect the actual current size of the Inuit population in Ottawa.
2. The Government and industry take into account the high proportion of Inuit youth and Inuit youth specific needs and considerations.
3. Enhance specific streams for Inuit who are permanent residents in Ottawa in addition to addressing the needs of Inuit who are living in Ottawa temporarily in order to access health services, education, employment and other programs and services unavailable in Inuit Nunaat (Inuit land claim territories).

## STRIKING POVERTY, FOOD INSECURITY, AND HOUSING VULNERABILITY

The OHC Inuit Ottawa study identified that **69% of the adult Inuit population in Ottawa has an annual personal income of less than \$20,000**. Not surprisingly given this striking poverty, **55% of Inuit adults in Ottawa reported food insecurity and one in five lived in overcrowded homes**.

*We recommend:*

4. All levels of Government federal, provincial and municipal policymakers urgently consider urban Inuit specific poverty reduction and income security programming.
5. Prioritize urban Inuit specific food security needs. This should include Inuit specific food banks, access and relevance of mainstream foodbanks for urban Inuit and more sustainable food security and nutrition programming for Inuit.
6. Policymakers prioritize urban Inuit specific housing needs for both permanent and temporary Ottawa residents.

## BARRIERS IN ACCESS TO EDUCATION AND EMPLOYMENT

Our study showed that **almost half (46%) of Inuit adults in Ottawa were without a wage earning job and almost 6 out of 10 (59%) Inuit adults have not completed high school**. Of Inuit adults that had completed high school, two out of three (66%) had gone on to complete college or more.





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POLICY RECOMMENDATIONS

We recommend:

7. Prioritize Inuit specific employment programming and opportunities in Ottawa and throughout Ontario.
8. To engage and work with community directed Inuit specific education strategies to enhance high school success rates – starting with early childhood education programming such as Head Start and following Inuit children through grade school through to high school.

**DISPROPORTIONATE BURDEN OF CHRONIC HEALTH CONDITIONS AND BARRIERS IN ACCESS TO PREVENTATIVE SCREENING AND PRIMARY HEALTH CARE HEALTH SERVICES**

The Our Health Counts Inuit Ottawa study found that Inuit in Ottawa experience a **disproportionate burden of chronic disease including elevated rates of allergies, hypertension, and COPD**. We also found **low rates of participation in preventative screening programs** such as PAP testing for cervical cancer and fecal occult blood testing for colon cancer. **Almost half of Inuit adults in Ottawa (43%) rated their health care access as fair or poor and multiple barriers in accessing primary care services were identified**. These included: waiting lists too long (51%); difficulty accessing traditional Inuit medicine (33%); needed follow-up/reminder call (30%); doctor not available after 5 p.m. and on weekends (29%); and doctor not available during business hours (28%). Cross-cultural communication barriers including trouble understanding what the health care provider was saying and discomfort with the health care provider because he/she was not culturally understanding of Inuit were also experienced by 1 in 5 participants.

We recommend:

9. Municipal, provincial, and federal policymakers work together to improve access to culturally safe preventative, primary, and specialist health care services for Inuit living in Ottawa. These services should be matched to needs, which in this case are elevated due to higher rates of chronic health conditions.
10. Collaborate with Inuit organizations and government to develop and implement Inuit specific cultural safety training programs for all health and social service providers working with Inuit.
11. Governments work together with Inuit organizations to ensure that all Inuit in Ottawa have access to trained Inuit cultural interpreters when they are using health and social services.

**HIGH RATES OF EMERGENCY ROOM ADMISSION**

Rates of emergency room visits were much more frequent among Inuit in Ottawa for both acute and non-acute illnesses compared to the general Ottawa and Ontario populations. **A total of 14% of the adult Inuit population in Ottawa visited an emergency room more than 6 times in the previous 2 years compared** to 0.9% and 1.9% of the Ottawa and Ontario populations respectively.

*We recommend:*

12. In addition to recommendations #9-11 above regarding improved access to culturally safe primary care and specialist services, we recommend that the Ottawa Hospital and the LHINs work in partnership with Tungasuvvingat Inuit and an appropriate health service research team to better understand and enhance the health service use pathways of Inuit accessing emergency rooms in Ottawa. Specifically, it is recommended that these groups collaborate to ensure that Inuit in Ottawa are receiving culturally safe and high quality emergency health services and have timely access to non-emergent preventative and primary care health services.

### **STRIKING BURDEN OF TRAUMA, FAMILY DISRUPTION, DISCRIMINATION, AND VIOLENCE.**

Inuit adults in Ottawa have very high levels of historical trauma including residential school attendance (18%), and forced relocation (28%); child protection agency involvement (38%), and discrimination in accessing health and social services (27%). One quarter (25%) of Inuit adults in Ottawa have been physically hurt by someone in their residence.

*We recommend:*

13. Provide adequate resources for the expansion of Inuit specific programming to address the harmful impacts of residential schools, forced relocation, and disproportionate family disruption by child protection agencies upon Inuit in Ottawa and throughout Ontario.
14. Local child protection agencies work with relevant Inuit community services to develop Inuit specific and Inuit community led child protection services and protocols.
15. Prioritize the provision of Inuit specific family violence programming for both victims and perpetrators by working with the justice system and integrating ***Inuit Qaujimagatuqangit*** values throughout the process.

### **DISPROPORTIONATE BURDEN OF MENTAL HEALTH CHALLENGES**

Not surprisingly, given the challenges described above, ***Inuit adults in Ottawa experience a disproportionate burden of depression and anxiety with over 15% scoring high or very high on the Kessler Psychological Distress Scale.*** Strikingly, over three quarters (77%) of the Inuit population living in Ottawa reported that they had a close friend or family member who had committed suicide.

*We recommend:*

16. All levels of Government invest in Mamisarvik Healing Centre to provide updated training, deliver programming and services to Inuit regardless of where they live.

### **STRENGTH OF INUKTITUT LANGUAGE AND INUIT COMMUNITY NETWORKING**

Over three quarters of the adult Inuit population in Ottawa is speaking Inuktitut at home. Specifically, when asked what language was spoken most often at home, 38% of the Inuit adult population in Ottawa spoke English only, 24% spoke Inuktitut only, and 38% spoke







English and Inuktitut. The rapid and widespread participation of Inuit community members in the OHC Inuit study, which depended on social networks for recruitment, demonstrated the strength and inclusivity of Inuit specific social networks in Ottawa. In the words of one community member:

**“IF YOU WANT TO GET A MESSAGE OUT TO INUIT IN OTTAWA, TELL ANOTHER INUIT.”**

We recommend:

17. Prioritize Inuktitut-specific health and social services and programming for Inuit living in Ottawa.
18. Prioritize Inuktitut language education programming for Inuit living in Ottawa
19. Policymakers work in partnership with Inuit community health and social services to ensure that services and programming for Inuit in Ottawa and in Ontario build on the strengths of Inuit specific community networks whenever possible.

#### **CAPACITY BUILDING FOR INUIT HEALTH RESEARCH AND OPPORTUNITIES FOR THE INUIT COMMUNITY DIRECTED HEALTH ASSESSMENT AND RESPONSE AND CAPACITY BUILDING IN HEALTH RESEARCH.**

The Our Health Counts Inuit Ottawa Health Database Project was a great success, largely due to the strength of the Inuit community led project implementation and the method of Community Based Participatory Action Research. It has been over seven years since data collection has been completed. There are opportunities for follow-up studies to see what the current health status is in the Ottawa Inuit community and a demonstrated Inuit capacity to do this work.

*We recommend:*

20. Municipal and Provincial support for Tungasuvvingat Inuit and a research team of their choice to do a follow-up Our Health Counts Inuit Ottawa Health Assessment Project.
21. That health institutions create standardized and culturally appropriate methods that enable the participation of Inuit in data collection for population estimates in the city and province.
22. Efforts be made to engage in future project and funding opportunities that allow for Inuit to become well-versed in health research involving their respective communities. For example, a Southern Inuit Network exists across Southern Canada. Engaging urban Inuit community based organizations to duplicate this study would provide comprehensive health data for the benefit of communities and organizations alike.

# APPENDICES

**NOTE:** The appendices listed here are only available online at [www.tungasuvvingatinuit.ca](http://www.tungasuvvingatinuit.ca) or [www.welllivinghouse.com](http://www.welllivinghouse.com)

**APPENDIX A** – Governing Council MOU

**APPENDIX B** – Community – SMH Research Agreement

**APPENDIX C** – Data Sharing Agreement – ICES and Governing Council

**APPENDIX D** – Inuit Adult and Child Survey Tools

**APPENDIX E** – Concept Mapping Brainstorming Statements

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