Determinants of Inuit Health in Canada:

A discussion paper

ᐃᓄᐃᑦ ᑕᐱᕆᑦ ᑲᓇᑕᒥ

INUIT TAPIRIIT KANATAMI

January 28, 2009

Table of Contents

EXECUTIVE SUMMARY **3**

INTRODUCTION TO INUIT NUNAAT **4**

MAP OF INUIT REGIONS IN CANADA 4

INUIT HEALTH STATUS IN CANADA **5**

DETERMINANTS OF HEALTH FOR INUIT **5**

ACCULTURATION 6
PRODUCTIVITY 6
INCOME DISTRIBUTION 7
HOUSING 8
EDUCATION 9
FOOD SECURITY 10
HEALTH CARE SERVICES 12
SOCIAL SAFETY NETS 12
QUALITY OF EARLY LIFE 13
ADDICTIONS 14
ENVIRONMENT 14

SELF-DETERMINATION: THE ROAD BACK TO HEALTH **14**

CONCLUSION **16**

APPENDIX 1 – FRAMEWORK FOR ACTION FROM THE INUIT ACTION PLAN 18

Executive Summary

Health outcomes are strongly linked to societal influences. Examination of key indicators demonstrates that the status of health of Canadian Inuit living in the Arctic lags far behind the health status of non-Aboriginal Canadians. Infant mortality and youth suicide among Inuit is high and life expectancy is lower in comparison to the rest of Canada. Eleven non-medical determinants of health have been identified as having a significant influence on Inuit health, including: acculturation, productivity, income distribution, housing, education, food security, health care services, quality of early life, addictions, social safety nets and the environment. Elements of each of these determinants contribute to the poor health of Inuit in the North. Positive action in any of these areas would result in some improvement in the health of Inuit but to truly affect a change that would raise the status of Inuit health to the level of the rest of Canada all of these determinants of health need to be examined collectively and addressed holistically.

Self-determination is the key to addressing health conditions in Inuit communities. Communities need to regain control of their resources and services in order to plan enduring, well-integrated, economic, social, and health programs that spawn lasting changes. Inuit must fully participate in the planning and development of programs that affect them. Increased data collection on issues related to Inuit health is integral to developing effective actions that can address determinants behind the lower health status of Inuit. Regional Inuit associations are ideally situated to discern the priorities and assets of each community. By increasing levels of self determination and representation at the community, regional, provincial/territorial, and national level, Inuit will be able to restructure and enhance their socio-economic sectors, integrate Inuit culture, language and knowledge in a way that is conducive to Inuit pride, dignity, harmony, and health.

Introduction to Inuit Nunaat

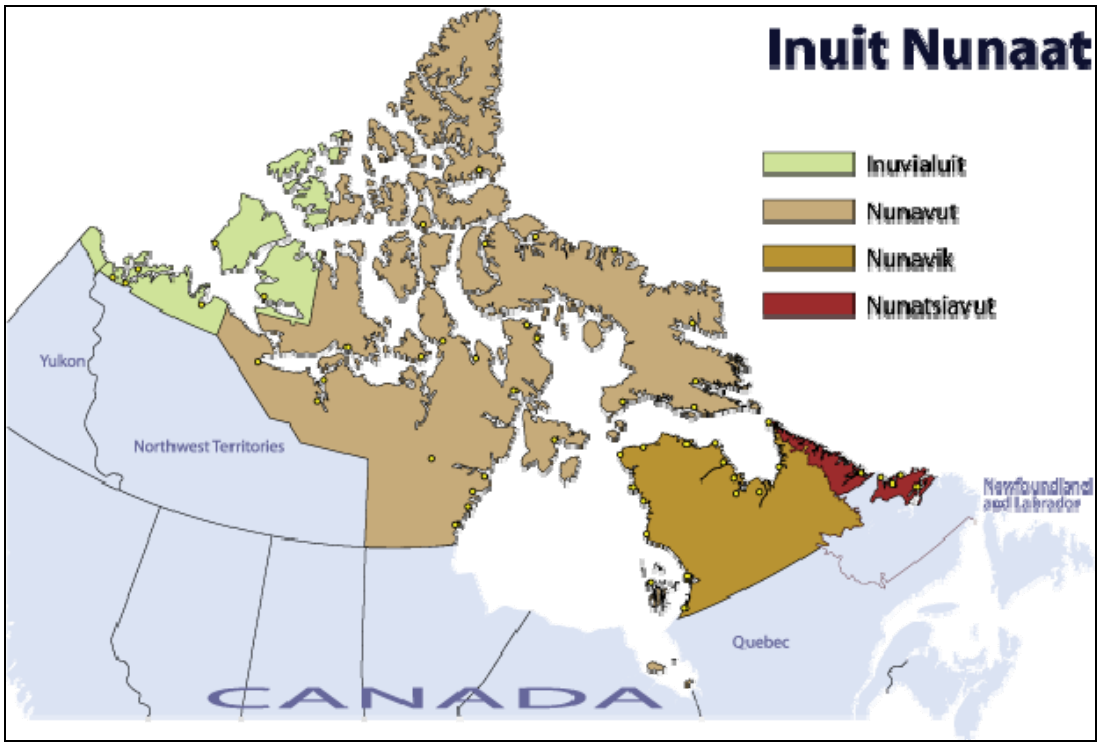
Most of the approximately 50, 500 Inuit who live in Canada reside in 53 Arctic communities in four regions: Nunavik (Northern Quebec), Nunatsiavut (Northern Labrador), Nunavut, and the Inuvialuit Region of the Northwest Territories (NWT) (ITK, 2008; StatsCan 2008). Collectively, the four regions stretch across northern Canada to form Inuit Nunaat, the Inuit homeland. Although these regions share a common culture, each region is distinct. There is considerable variation in language and tradition across Inuit Nunaat.

35% of the Inuit population is under the age of 15 compared to 18% of the total Canadian population. (ITK, 2008)

The weather is harsh in the Arctic. Inuit communities are very isolated. With the exception of one community, these communities do not have road networks linking communities to each other or the South. Inuit communities are dependent on airplanes for travel and short summer shipping seasons for southern supplies.

The Inuit population is very young and growing quickly. The median age of the Inuit population in 2006 was 22 years, compared with 40 years in the rest of Canada. Between 1996 and 2006 there was 26% increase in the Inuit population. This increase is just over three times the national average (StatsCan, 2008).

Map of Inuit Regions in Canada



From ITK website: http://www.itk.ca/maps-inuit-nunaat

Inuit regions constitute 40% of Canada's land mass. (ITK, 2008)

Inuit Health Status in Canada

"Inuit infants have the highest reported rate of hospital admissions because of lower respiratory tract infections in the world" Kovesi et al. (2007)

Key health indicators such as infant mortality, life expectancy, and youth suicide demonstrate that Inuit health status is lower than other Canadians. The infant mortality rate in Inuit communities is four times the national average (ITK, 2008). Respiratory infections, including bronchitis, pneumonia and RSV, are leading causes of infant morbidity and mortality. Recent research (Hodgins, 1997; Banerji, 2001; Kovesi, 2007) outlines the higher rates of disease such as respiratory infections and anemia among Inuit infants and children. One such study in Nunavut found 306 of 1000 infants were hospitalized for bronchiolitis during their first year of life (Banerji, 2001). Research in Nunavik states that 60% of babies aged 9-14 months are anemic, primarily due to insufficient nutrition, and by age 5, 1/4 of children suffer significant hearing loss in at least one ear due to ear infections (Hodgins, 1997: 206-207). These studies link many of these health problems to inadequate housing, unemployment, marginal access to health services, food insecurity, as well as behavioral and environmental factors. High rates of bronchiolitis and other respiratory tract infections can be attributed to risk factors such as household overcrowding, exposure to tobacco smoke, and deficiencies in immunity (Jenkins et al., 2003).

"Inuit now live as long as the average Canadian did in the 1940s" Mary Simon - President, Inuit Tapiriit Kanatami

The overall life expectancy for Inuit is also lower than that for other Canadians. In 2001, the life expectancy in Inuit regions was 66.9 years – 12 to 15 years younger than the life expectancy of other Canadians (ITK, 2008). Another indicator of the poor health in Inuit communities is the high number of youth suicide. From 1999 to 2003, the suicide rate among Inuit was 135 per 100,000 (ITK and ICC, 2007). It has also been shown that the reason behind suicide in Inuit differs from those of other Canadians. Whereas most Canadian suicides occur as a result of mental illness, Inuit youth suicides are linked to disparaging socio-economic and family conditions. (Hicks, 2007)

The Inuit youth suicide rate is four times higher than that of First Nations and eleven times higher than the rate for all Canadians (ITK & ICC, 2007)

Determinants of Health for Inuit

There is international acceptance, substantiated by research, that health outcomes are strongly linked to societal influences. Definitions and lists of the social and medical determinants of health vary somewhat but each include the core concept of examining the factors within our society and environment that affect human health. As defined in World Health Organization (WHO) documents, the social determinants of health focus on the lifelong importance of health determinants in early childhood, and the effects of poverty, drugs, working conditions, unemployment, social support, food security and policy on health.

Researchers have discussed many of the non-medical determinants of health for Inuit including: food security (Chan et al, 2006; Lambden et al, 2006), access to

appropriate health care (O'Neil et al, 1998), housing (Young, 1996) and acculturation (Condon, 1990; Steenbeek et al, 2006). The Nunavut Department of Health and Social Services held a workshop in May 2005 on the social determinants of health. This meeting of health workers and Inuit stakeholders from across the territory identified the socioeconomic factors they found most linked to health outcomes in their regions. The social determinants of health identified by this group are:

"Why treat people's illness without changing what made them sick in the first place?" World Health Organization

1. acculturation
2. productivity
3. income distribution
4. housing
5. education
6. food security and nutrition
7. health care services
8. quality of early life
9. addictions
10. social safety nets
11. the environment

(NDHSS, 2005)

Although social determinants of health outlined at the Nunavut workshop are for that region and did not take into account the realities of other Inuit regions or Inuit living in urban and southern Canada, they can, none the less, be used as a starting point for discussion within this document.

Acculturation

Acculturation has occurred very rapidly for Canadian Inuit as they moved from a life on the land to an industrialized one. Before the 1950s, most Inuit lived on the land with their extended family in small, transient camps that moved according to wildlife migrations and the seasons. Men and women held their respective roles as hunters and care-givers/seamstresses.

"The impacts of the residential school experience are multi-generational and are still being felt today" Mary Simon – President, ITK

During the 1950s, the Canadian government began to actively encourage Inuit to settle in permanent communities where housing, medical facilities, and modern stores were built. In order to support the movement of Inuit to settlements, dog teams were killed, children were forced to attend school and family allowances were offered to those who remained in settlements. Housing was also promised. Although permanent settlement has had some positive outcomes, the dramatic socio-cultural changes that Inuit have experienced and continue to experience affect mental, physical, emotional and spiritual health in many ways. The movement from traditional forms of subsistence to a dependence on a wage economy radically disrupted Inuit social and environmental relationships and is recognized as a major contributing factor to social marginalization, stress and higher incidences of suicide (O'Neil, 1994, Kirmayer et al., 1998 and Wexler, 2006).

The impact of Canada's residential school program on Inuit society and culture is also well-documented (Kirmayer et al., 2003; Royal Commission on Aboriginal Peoples, 1995). The 2001 Aboriginal Peoples Survey (O'Donnell and Tait, 2003) shows that a substantial proportion of Canadian Inuit attended residential schools in their youth: 16% of those aged 35 to 44; 44 % of those aged 45 to 54; 26% of those aged 55 to 64; and 39% of those aged 65 and over had attended a residential school. While boarding at the schools run by missionaries, located hundreds or thousands of kilometers from home, for nine months per year, many Inuit children lost their familial, communal, and socio-cultural connections.

They had no opportunity to eat country foods; were banned from speaking Inuit languages; and were forced to follow southern norms. Physical and sexual abuse of pupils was also common in addition to the emotional, mental and cultural abuses. Cultural repression, assimilation and abuse combined to make some feel ashamed of their identities, alienate and disconnected from their families. (Wexler, 2006; Kirmayer et al., 2003; Royal Commission on Aboriginal Peoples, 1995). Although the residential school system essentially ended in the mid-1970s, it is often cited as a source of 'community trauma' that continues to affect the health and mental well-being of Inuit and Inuit communities today.

Inuit youth experience social exclusion in both traditional and modern worlds and struggle to find a meaningful way to engage their communities.

As the Arctic landscape changes roles become unclear. This uncertainty of purpose and identity is particularly challenging for youth, who are taught to appreciate the way of life and language of their parents or grandparents raised on the land, but feel weak themselves because they cannot succeed in either the traditional or modern world (Wexler, 2006).

Productivity

Employment has been shown to have strong ties to health outcomes worldwide. Productivity is the term used to describe this determinant for Inuit. It is inclusive of hunting and harvesting; sewing; childrearing; family and community commitments; as well as paid and voluntary employment.

Harvesting is an important part of Inuit communities and has been observed to have a positive impact on health. The Aboriginal People's Survey of 2001 found that 7 out of 10 Inuit adults in the Arctic had harvested country food in the previous year while at least 80% of Inuit households in Nunavut, Nunavik and Labrador (Nunatsiavut) had a least one member who was involved in harvesting activities (Statistics Canada, 2006). The consumption of traditional foods is a benefit since country food in the Canadian Arctic is highly nutritious (Lawn and Harvey, 2003). The practice of harvesting can also provide an economic cushion for low-incomes families, enabling them to spend less on store bought foods and enhancing food security. However, the high cost of equipment and consumables required for hunting such as snowmobiles, gas and bullets conversely limits families' abilities to hunt, particularly those with low incomes.

In 2000, 71% of Inuit households stated that half or more than half of their meat/fish intake was country (harvested) food. (ITK, 2008)

The socio-cultural aspects of harvesting are also vital to Inuit well-being since they reinforce a rapport with the land that cultivates Inuit culture, identity and self-reliance. Post harvesting activities are also important for strengthening familial and communal bonds, because Inuit share country food with family and community members. Additionally, the production of clothing and art using harvested materials has many benefits. It is not only an opportunity for generations to share skills and cultural practices; but enables families to have low cost warm clothing and generate additional income. There is also the added benefit of self expression.

Although there are high rates of traditional activities, there are conversely low rates of employment in Inuit communities. In 2006, Inuit unemployment was 20.8%

compared to 3.9% for non-Aboriginal Canadians (StatsCan, 2008). Overall, the unemployment rates are high in all Inuit regions, but by far the highest in Labrador (Nunatsiavut) where 40% of Inuit men are unemployed (Ibid: 12). As seen in the 2001 Aboriginal Peoples Survey, 79% of Inuit respondents cited unemployment as the main problem in their communities (Little, 2006: 10). A recent study by PriceWaterhouseCoopers in Nunavut found that the most common reason given by Inuit for not being employed was that jobs matching their skills were unavailable (ITK and Research and Analysis Directorate, 2007).

Unemployment rates for Inuit men are over four times higher than for Non-Inuit Canadian men. (ITK, 2008)

Anecdotal evidence suggests that scarce employment opportunities in Inuit communities contributes to feelings of low self-esteem, listlessness, violence and suicide. O'Neil (1994) found that in the Kivalliq region of Nunavut suicidal behavior was pronounced in households whose male head was unemployed. By constraining income, unemployment may also affect one's educational opportunities, food security, ability to provide good childcare and other social health factors.

Income Distribution

Health Canada describes income as "the most important determinant of health" (Little, 2006). The effects of wealth and poverty on health are documented worldwide. Wealth, employment and education are interdependent. Marginalization due to poverty limits access to education, employment, good housing and nutritious food. Poverty also weighs heavily on mental well-being by lowering self-esteem and increasing dependence. (NDHSS, 2005; Auger et al, 2004). Income affects health directly, as well as indirectly through its impact on other determinants.

With high unemployment rates, "few Inuit have opportunities to meet basic survival needs or to care for others, control their own lives, carry out family responsibilities, develop healthy relationships within and outside of the family, or have hope for the future." (Little, 2006)

The Inuit economy is mixed and includes land based and wage based economies. The land-based, or non-wage, economy includes a number of activities such as hunting, fishing, trapping, arts, crafts, sewing and childcare. The wages based economy is strongly intertwined with the non-cash economy.

Not only do Inuit find themselves more often than non-Inuit without a job, but those jobs are frequently seasonal or part time. Additional entry level jobs are more often held by Inuit whereas management level jobs are dominated by non-Inuit. In Nunavik, one-third of full time jobs are held by non-Inuit, who comprise only 10% of the population (Hodgins, 1997: 123). Hodgins (1997) also notes that the majority of Inuit who are employed full time are also disadvantaged because they work for municipalities, co-ops and local businesses who provide scant benefits and lower pay.

In 2001, the median income for Inuit was $13, 669 compared to $22, 120 in the rest of Canada. (ITK, 2008)

A factor that must also be considered when examining income and its relationship to health in the Arctic is the cost of living. Heat, electricity, water, fuel, household goods and groceries cost significantly more in the Arctic. As a result of these high prices, the proportion of total household expenditures spent on food is two times higher in Nunavut than the rest of Canada (Rogan, 2003). The elevated cost of living puts additional stresses on families and affects other determinants of health such as education, housing and food security.

Housing

"The overcrowding of housing is a clear non-medical health indicator for Inuit." (ITK, 2004). Housing shortages, poor quality housing and crowding are an urgent public health priority in all Inuit regions in Canada. The lack of housing with the resultant overcrowding leads to an increase in physical and mental disease. Housing problems have been linked to low achievement at school, spousal abuse, respiratory tract infections, depression and substance abuse (ITK, 2004; NTI 2005). The results of overcrowding combined with insufficient ventilation on infant and child respiratory health has been well documented in the Baffin region by Dr. Kovesi (2007). Furthermore, Hodgins (1997) links Nunavik's incidence of active tuberculosis to housing, since crowding propagates infectious diseases. The overall rate of Tuberculosis in Inuit communities is 90 times that of the non-Aboriginal Canadian population (PHAC, in preparation).

In 2006, six times more Inuit children under 14 years lived in overcrowded housing then non-Aboriginal Canadian children. (StatsCan, 2008)

Hodgins (1997) associates crowded housing with high levels of domestic violence in Nunavik, explaining that a lack of privacy and personal space can increase stress levels to the point at which tense family situations become inescapable violent crises. Additionally battered women can seldom find alternative accommodation in their communities due to the lack of housing and shelters (Ibid).

An increase of 0.1 in the average persons per room in a community could increase the risk of two or more cases of TB in the community by 40%. (CTC, 2007)

As a combined result of poverty and government promises of housing for Inuit who moved off the land, the majority of Inuit live in social housing units. Since 1993 when the federal government cut its spending to Inuit for social housing, all Inuit regions have witnessed a growing housing crisis. This is particularly apparent in Nunavut and Nunavik. Inuit homes are the most overcrowded in Canada. It is estimated that 53% of Inuit households are overcrowded (ITK, 2004) compared to about 8% of all households in the country. Fifteen percent of Nunavut's population is on waiting lists for public housing. ITK estimates that 3300 housing units are needed immediately to address the current housing shortage in Nunavut, and an additional 250 units per year would be required thereafter (Ibid). In 1998, in Nunavik, where almost the entire population lives in social housing units, the Regional Board of Health and Social Services reported that the housing situation posed a major risk to the population's psychosocial and physical health. The situation in Nunatsiavut is no different. A 2003 Housing Needs Survey in Newfoundland and Labrador found that 44% of Inuit households were in dire need, meaning that they were overcrowded, in need of repair, or had rents exceeding 30% of the household income (ITK, 2004).

Increased risk of hospitalization for infants due to a common respiratory virus is associated with living in a home with 4 or more other children or 7 or more people all together. (Bulkow et al., 2002)

A major barrier to establishing social housing programs in Inuit regions is the federal government's exclusion of Inuit from Aboriginal housing programs. The federal government frequently groups Inuit and First Nations under the same umbrella, while failing to finance and deliver programs equitably among them, directing most resources to on-reserve First Nation. Between 1993 and 2004 the federal government invested $3.8 billion in First Nations housing, averaging 2600 new houses per year and the renovation of 3300 more, but no houses were built or renovated in Nunavut during this period (ITK, 2004). The Makivik Corporation in Nunavik successfully challenged this social housing inequity by filing a dispute against the Government of Canada, regarding its failure to comply with sections 2.12 and 29.0.2 of the James Bay Northern Quebec Agreement. These sections state that federal and provincial programs and funding shall apply to the Inuit of Quebec "on the same basis as to other Indians and Inuit of Canada" (ITK, 2004). In July 1999, Canada finally acknowledged its obligation to provide ongoing support for social housing to Inuit in Nunavik, and under a new agreement, the Governments of Canada and Quebec each pledged $10 million annually for the cost of constructing Inuit housing from 2000 to 2005 (Ibid).

28% of homes across Inuit Nunaat are in need of major repair. (StatsCan, 2008)

"In 2006, 18% of Inuit lived in a household that was home to more than one family, compared with 4% of the non-Aboriginal population." (StatsCan, 2008)

This positive result has prompted other Inuit regions to ask the federal government to commit to funding an Inuit and Northern housing package in their regions (NTI, 2006). NTI and the Government of Nunavut submitted a Ten Year Inuit Housing Action Plan to the Department of Indian Affairs and Northern Development (now Indian and Northern Affairs Canada) in August, 2004. The Plan estimates the number of units that are in immediate need of renovation and construction in Nunavut, the number of new units needed per year over the decade and the plan's average annual cost. It also outlines the socioeconomic benefits stemming from a long-term housing strategy. A well-coordinated housing program could: provide training opportunities for locals in a variety of trades, including plumbing, carpentry, and as electricians; create full-time employment for approximately 1500 people; increase local community expenditures; build capacity and give communities a sense of empowerment; and mitigate health and social problems tied to overcrowding (ITK, 2004). In its Annual Report on the State of Inuit Culture and Society, NTI (2006) recommends several other actions be taken to redress Inuit housing problems: the federal, territorial, and municipal governments should clearly define their respective roles in relation to housing; health authorities should work together with housing authorities to explore Inuit-appropriate building designs; and the federal government should develop and implement a multi-year initiative for social housing that identifies immediate and long-term funds, and factors transportation and logistical challenges into its budget.

A well-coordinated housing program could create full time employment for approximately 1500 people. (ITK, 2004)

Education

There is much epidemiological evidence that a person's level of education is strongly linked to health. The more education a person has, the better their health. Lower levels of education are linked to worse health and a higher association with behaviors that put health at risk. (Freudenberg and Ruglis, 2007) Several studies illustrate the interconnectedness of education and Inuit wellbeing suggesting that the relationship between higher levels of education and increased health seen internationally hold true for Inuit. Education includes all learning throughout the lifespan and includes early

childhood development; primary and secondary school; post secondary and job skills training.

Health is affected by level of education in various ways. The most obvious is the link between increased education and increased employability and earning power. Thus education provides means to increase ones wealth and thus ones health. Education also provides increased knowledge of health and health promotions, as well as the skills to acquire that knowledge. Additionally, the importance of literacy cannot be denied as poor literacy threatens health both directly and indirectly. Directly it can lead to: accidents and injuries when warning labels, operating instructions and safety manuals are misunderstood. Indirectly, lack of literacy increases social marginalization. Education has also been shown to decrease ones social isolation by bringing students into contact with a wider range of people, and thus supports (Freudenberg and Ruglis, 2007).

As of 2006, 51% of all Inuit adults aged 25-64 years had not completed high school. (ITK, 2008)

Unfortunately access to education in the Arctic has its challenges. There is a strong need to enhance the infrastructure and curriculum for early childhood development; primary and secondary education, and post secondary opportunities. A recent Statistics Canada release showed that currently only a quarter of Inuit students graduate, whereas only a quarter do not graduate in the remainder of the country. (Thompson, 2007) Additionally educational standards and course availability in Inuit communities do not mirror what is offered in mainstream Canada. A study completed by the Ajunnginiq Centre in 2004 demonstrated how senior level math and sciences were not widely available and that even grade 12 advanced English was not available everywhere (NAHO, 2004)

"A broken school system is at the root of Nunavut's problems". (Berger, 2006)

In his final report (2006) on the implementation of the Nunavut Land Claims Agreement, Thomas Berger highlights the lack of a comprehensive, well-designed bilingual education system that can produce graduates who are competent in both Inuktitut and English. The present school system leads to proficiency in neither.

What has not been studied and reported is the link between traditional knowledge strength or loss and health. The correlation between traditional knowledge and practices, and health related to cultural identity are better documented.

Food Security

Food security is a direct determinant of physical and psychological health. Food security refers to the accessibility, availability, and reliability of an adequate food supply. Individuals who are food insecure are more susceptible to malnutrition, infection, chronic health problems, tend to be preoccupied with food access, feel a loss of control, and struggle psychologically (Lambden et al., 2006). Other noted effects of food insecurity include a reduced ability to learn, depression, and social exclusion. There is a direct link between nutrition and childhood cognitive and physical development. This impacts their ability to participate in education, and later employment.

An alarming percentage of Inuit are food insecure with both market foods and country foods. In Nunavut, 49% of households reported having "often" or "sometimes" not enough to eat during the year prior to the study (Chan et al., 2006: 417). This compares to only 7% for Canadian households overall, which means that Inuit families are seven times more food insecure than other Canadian families.

The combined cost of 4 staple food items (5lb bag of potatoes, 1L milk, 1lb ground beef, 2.5kg bag of flour) range in price in selected communities across Inuit Nunaat from $17.40 to $31.22. These same 4 items range in prices across selected Southern cities from $9.36 to $11.12. (ITK, 2008)

There are several factors that inhibit Inuit access to a sufficient quantity and quality of food. Income level is the most significant barrier. The cost of market food can be two to three times that of market food in the south, and nutritious perishable foods, such as vegetables, tend to be more expensive than junk foods because of their shipping weight. Income levels may also be insufficient to cover hunting and fishing costs, preventing families from bolstering their food security with country food. In a large cross-sectional study of communities across the Canadian Arctic, 58.3% of Inuit respondents between the ages of 20 and 40 reported that their family could not afford to buy all the food they needed from the store (Lambden et al., 2006: 336). Thirty-eight percent of respondents in the same age group reported that hunting was also unaffordable.

A second barrier to food security for Inuit relates to traditional skills sharing. Some Inuit are unable to harvest country food because they lack hunting skills. Others are unable to achieve food security because they lack knowledge in how to prepare nutritious meals with less expensive ingredients, or need better budgeting skills (NDHSS, 2005; Chan et al., 2006).

Thirdly, low availability and quality of market food exists since many communities have only one grocery store and perishable foods must be shipped to the Arctic primarily by air. Healthy perishable foods are often rotten or damaged by the time they reach community stores, particularly when weather delays travel times.

Nutrition surveys for the Food Mail Pilot Project in Kugaaruk and Kangiqsujuaq reveal the high prevalence of food insecure families and resultant malnutrition among Inuit in these communities. More than half of adults in families receiving social assistance or in working poor families were "food insecure with hunger" and most of the remaining families were "food insecure without hunger". Overall, these issues underline the need for addressing food security via a holistic approach that tackles food costs, unemployment, income levels, and other Inuit-specific needs, such as harvesting support.

Without the Food Mail Program, the cost of basic, nutritious food items would exceed the income of a northern household reliant on social assistance. (Cundill, 2007)

The Food Mail Program is one successful action that aims to address food security by reducing the cost of nutritious foods for Inuit consumers. This program was initiated by the Ministry of Indian and Northern Affairs Canada in collaboration with Health Canada, by subsidizing shipping costs for nutritious perishable food and other items, and lowering their shelf prices.

Education-related food insecurity is being addressed through nutrition education programs, which encourage Inuit to make more nutritious food choices and to use

healthier cooking methods. Harvester support programs are also in place, improving access to country foods. However, there is an overarching need for more funding for these programs, and an even greater need for the broader socioeconomic determinants of food insecurity to be addressed in order to achieve long-term food security. Facilitating Inuit regions' access to funding, changing the wage-to-cost ratio, and reducing disparities in employment, income, and housing are key priorities for improving Inuit food security and health (Lawn and Harvey, 2003; Chan et al., 2006).

Families most vulnerable to food insecurity in the Canadian Arctic are those who have no active hunter, low cash-flow, or have members with substance abuse problems. (Chan et al., 2006)

Health Care Services

Inuit have limited access to comprehensive health services due to geography, program design and funding, capacity and resources, and language and culture. Most Inuit communities only have primary care services, so patients must travel to regional centers or southern cities to consult medical specialists, have operations, and deliver babies. This first line of care is not delivered at the same standard as it is elsewhere, as nurses, rather than physicians, are first line of care. Many Inuit report that medical transfers to the south can be isolating and demoralizing experiences, because they are separated from their families and home communities during a time when they are most in need of support. Although most communities do not have hospitals, every Inuit community has one or more nursing stations. Challenges at this level include recruitment and retention of qualified staff as well as the cultural and linguistic competencies of the health professionals. As a result, there is a conspicuous absence of traditional Inuit knowledge in health service delivery. Inuit frequently face cultural and language barriers, which can leave patients feeling misunderstood, marginalized, and mistreated (Archibald and Grey: 2006). Furthermore, there is little capacity for long-term, continuous treatment programs, because staffing shortages are severe, turnover rates are high, and funding is sporadic.

"Until Inuit values, approaches and perspectives are incorporated into health and social services, it is difficult to imagine the system enhancing the mental health and well-being of Inuit individuals and communities." (ITK, 2006)

The Inuit Action Plan (ITK and ICC: 2007) emphasizes the need for long-term funding based on need, operating costs, and remoteness, instead of per capital allocation models. Improvement in health services must also include increased education and training of Inuit nurses, doctors, and mental health workers. Inuit have already made some progress on this front. The Arctic College in Iqaluit offers a nursing program in partnership with Dalhousie University, and Nunatsiavut has recently begun their own nursing program. The Inuulitsivik Health Centre in Puvirnituq started a maternity program in 1986, which has reintroduced perinatal services to the Hudson Bay region and given women an opportunity to give birth closer to home. Nunavut is currently developing and expanding their midwifery training and services.

Social Safety Nets

The social safety net, that is the availability and quality of family, community and societal supports, is tightly linked to the other social determinants of health. Increased wealth and education have been demonstrated to increase social resilience through increased access to supports.

Participants at the Social Determinants of Health in Nunavut Workshop (NDHSS, 2005) identified the social safety net as a key social determinant of health for Inuit. This term refers to the availability and quality of family, community and societal supports. Dramatic changes in the size of Inuit communities once formed of family networks of 20 or so have challenged the effectiveness of Inuit social support networks, as evidenced by the high suicide rates in many communities. Family relationships have changed in the last 50 years, due to changing social conditions and loss of language resulting from close contact with the non-Inuit cultures. Some Inuit grandparents and grandchildren may have difficulty communicating together because of language loss. The removal of children to residential schools has also had lasting impacts. These children, now adults, and their families, may be negatively affected by problems arising from the early separation from parents, community, language, culture and treatment received at the schools.

67% of Arctic Inuit say that they stay in their community to be near family. (ITK, 2008)

Some family networks have suffered from factors such as addictions and violence or contact with the justice system. For example, the rate of deaths by homicide in Nunavik from 1980 to 1994 was seven times higher than for Quebec as a whole; and, greater than half of women under the age of 25 report having been sexually assaulted or abused (Hodgins, 1997). Nevertheless, Inuit surveyed in Nunavik report having at least a small network of people whom they can turn to in times of need (Hodgins, 1997), while only 3% reported having no friends. These trends may exist since most Inuit live in small communities where the extended family is still a relatively strong social unit, and children are often shared between homes, living with grandparents or other relatives in the community.

Quality of Early Life

Early childhood experiences have a long-term effect on mental and physical health. Early childhood education and care influence one's coping skills, lifestyle behaviors, immunity to illness, and overall well-being for the rest of one's life. This in turn affects employment prospects, income, education, and all other determinants of health (Friendly, 2004).

The most prevalent negative factors affecting early life in Inuit communities are poor nutrition and toxic exposures during pregnancy, overcrowded housing, food insecurity, poverty, and stressful home environments. (NDHSS, 2005; Hodgins, 1997)

High rates of anemia and respiratory tract infections among Inuit infants are attributable to inadequate prenatal and postnatal nutrition and widespread smoking in crowded homes. Another early life-related health problem of great concern to Inuit communities is Fetal Alcohol Spectrum Disorder (FASD). Although there are no reliable statistics about its occurrence among Canadian Inuit, the risk of its occurrence is evident in the proportion of Nunavik women who report binge drinking while pregnant. In a Santé Quebec survey, close to a quarter of pregnant women aged 15-24 reported at least monthly drinking sessions of five or more drinks (Hodgins, 1997).

Participants at the Social Determinants of Health in Nunavut workshop recommended actions at three levels: federal, community, and departmental (NDHSS, 2005). The federal government should ensure that public policies made in

every government department support early life programs. Communities should strengthen outreach services for families with young children, increase their staffing levels, and better train service providers. Health and social services departments in Inuit regions could ascertain what resources would most help build parental awareness, confidence and skills, and run workshops, training programs, and resource centers. Finally, participants felt that departments need to increase prenatal support to pregnant women through counseling, prenatal nutrition and FASD education, and home visits (NDHSS, 2005).

Addictions

Substance abuse is another challenge facing Inuit communities. Binge drinking is the predominant pattern of alcohol consumption among Inuit (NAHO, 2004). Alcohol is implicated in most episodes of violence, a large percentage of injuries, and unwanted sexual contacts. Smoking is much more prevalent in Inuit communities than in the rest of Canada. The proportion of Inuit men and women 15-44 years old in 2001 who were smokers ranged from 61% to 76% respectively, while in contrast, only 16% of men and 27% of women were smokers among the total Canadian population (ITK and ICC, 2007). Furthermore, 62% of Inuit women who were pregnant in 2001 smoked daily. Lung cancer rates for Inuit men at 2.3 times that national level and 3.7 times the national level for Inuit women (ITK, 2008).

Lung cancer rates among Canadian Inuit are the highest in the world. (Young, 2008)

While risk behaviors such as alcohol abuse and smoking no doubt injure health, their prevalence in Inuit communities is also symptomatic of deeper social and economic problems. Thus, underlying socioeconomic inequalities causing serious daily stress and unhealthful coping mechanisms should be viewed as the fundamental determinants of health. Addictions intensify the situation leading to their usage and are linked specifically to poor housing, low income, unemployment, and single parenting (NDHSS, 2005). Suggestions for addressing addictions include: developing community-based de-tox programs that are land-based and involve elders; increasing community capacity to deal with addictions; improving socioeconomic conditions; and enacting stronger policies on the illegal trade of alcohol, drugs, and tobacco (Ibid).

"If the health of the land is endangered then so is the health of the people." (NDHSS, 2005)

Environment

For Inuit, the environment is a key determinant of health. Major threats to the Arctic environment such as global warming and contaminants strongly affect Inuit food security, spiritual, and cultural values. Inuit will continue to increase public awareness of the relative risks and benefits of country food and advocate for further research on their changing environment and associated health impacts.

"Self-determination cuts through factors relating to human well-being as without control over one's life it is clear that all other aspects and life itself will be at risk."

Self-Determination: The road back to health

Self-determination improves health outcomes since communities who control their resources and services can initiate programs that match their needs, reducing

delivery gaps and creating valuable support networks for vulnerable groups. Control over fiscal resources enables communities to plan enduring, well-integrated economic, social, and health programs that spawn lasting changes. Furthermore, self-determination generates new employment opportunities associated with running institutions and programs. (Waldram et al. 2006: 280) discern that people in self-determined communities likely have more meaningful lives and a stronger sense of social cohesion and dignity.

Self-determination is a vital means by which Inuit can address the socioeconomic inequalities influencing their health.

While each determinant of health requires unique actions a common need exists across all sectors for Inuit self-determination. It has long been understood by Inuit that they must fully participate in the planning and implementation of programs that affect them. The governments, churches and businesses in Canada have a long history of control and disempowerment in Inuit regions through the process of colonization. Since the 1970s, Canadian Inuit have progressed toward self-determination in all four Inuit regions where Comprehensive Land Claim Agreements (CLCAs) with the Government of Canada have been negotiated.

Nevertheless, the signing of CLCAs is only one of many parts of self determination. It does not guarantee fulfillment of their provisions since there is a misconception within the federal government that through the land claim settlements, Inuit issues have been resolved (ITK, 2004). The Government of Canada continues to have fiduciary responsibilities to Inuit such as compliance with Article 37 in the Nunavut Land Claim Agreement, which states that Inuit and the Government of Canada shall identify, for multi-year planning periods, the implementation activities and level of government funding that will be provided during any planning period (ITK, Dec 16 2004: 7). INAC abjures its responsibility to disclose the level of implementation funding it will give Nunavut, hampering Nunavut's ability to plan programs with foresight.

This dispute reflects the need for involving Inuit in senior levels of the federal government, where they can voice Inuit concerns and ensure Inuit priorities are addressed. In May 18, 2005, Inuit reached a breakthrough in their relations with the Government of Canada, signing a Partnership Accord and agreeing to several critical principles. The demographic, socioeconomic, and geographic realities of Inuit will be carefully considered in the design of institutions and implementation of programs that may affect Inuit. Both parties will work toward a sustained involvement of Inuit in policy development with the Government of Canada with appropriate financial and human resources. They recognize the establishment of an Inuit Relations Secretariat within Indian and Northern Affairs Canada. Progress is slowly being made in increasing Inuit representation at the national level. In 2008, the Office of Inuit Health was formed within Health Canada to represent Inuit health needs within the federal government. Also in 2008, the first Inuk appointed to the federal cabinet, Leona Aggluqaq, was named as Minister of Health.

By increasing their visibility in the federal government, Inuit will be better positioned to shape federal policies in their favor, hopefully ending an era of marginalization and disempowerment.

The purpose of these measures is "to increase the understanding of Inuit rights, interests and aspirations in the various departments and agencies that make up the

Government of Canada" and "to promote and support Inuit communities to become self-reliant, healthy, culturally vital and secure" (INAC, 2005).

With adequate financial support from the federal government, Inuit governments can collaborate with regional Inuit associations to deliver programs desperately needed in Inuit communities. These organizations can assist communities in developing employment opportunities, harvester support programs, social housing projects, education programs, and other social supports that will improve Inuit health. Whether for the design of a new education system or the administration of culturally appropriate health services, Inuit governments and organizations will continue to actively advocate for Inuit-specific policies, Inuit-designed programs, and Inuit employment.

Regional Inuit associations are ideally situated to discern the priorities and assets of each community

Self determination is also something that must happen in each region, community and family and not solely at the government level in order for health to prevail. The earlier example of midwifery care in Nunavik is an example of program that meets the needs of the community and was implemented due to the demand and support from the community. Recent legislation in Nunavik has finally allowed these midwives to be certified.

Self determination at the community level requires a community that comes together to work past the obstacles that stand in the way of reaching the goal that they have set together.

Conclusion

Inuit are making great efforts to address the health conditions in their communities such as high rates of suicide, respiratory tract infections, smoking, and other ailments. These conditions correlate with widespread socioeconomic factors such as housing shortages, unemployment, acculturation stress, inadequate incomes and low educational attainment throughout Inuit regions. These social factors in turn influence other determinants of Inuit health such as early childhood care and food security, which compound existing health challenges and support addictions.

With the understanding that the most effective actions will be those that can address the driving forces behind socioeconomic conditions, increasing and improving data collection on Inuit health must be a major focus for Inuit governments and organizations since "accurate information is one of the cornerstones of the health planning process" (Elliott and Macaulay, 2004).

Historically, programs and research on Inuit health have focused on narrow indicators of health status without investigating a holistic view of social determinants of health as they relate to Inuit specifically. Therefore, future health initiatives must focus on issues such as food security, acculturation, level of political involvement/self-determination, and productivity as well as specific health outcomes. This change in focus would facilitate a more realistic perspective of Inuit health for Inuit organizations and governments.

In spite of continuing pressures, Inuit have developed a considerable political voice and impressive organizational capacity, swiftly progressing toward self-determination through the signing of Land Claim Agreements, a Partnership Accord, and the election of Inuit governments. By increasing levels of self-determination in their regions, Inuit will be able to restructure and enhance their socio-economic sectors, integrating Inuit culture, language, and knowledge in a way that is conducive to Inuit pride, dignity, harmony, and health. During this process, the Government of Canada must support Inuit by implementing Land Claim Agreements, involving Inuit in policy-making and program design, and giving them continuous, adequate funding for development.

Most importantly, coordinated and innovative approaches must be taken, not only to treat the ill but also to address in a holistic manner, the factors contributing to the health status of Inuit.

"Until housing shortages are gone, until there is an economy that can support the growing number of young people reaching working age, until the education system can produce more high school graduates, and until a wide range of post-secondary opportunities are available in the north, the situation is unlikely to change."
(Archibald and Grey, 2006)

Appendix 1 – Framework for Action from the Inuit Action Plan

The 2007 framework for action from ITK and the Inuit Circumpolar Council (ICC) titled, *Building Inuit Nunaat: The Inuit Action Plan* represents a comprehensive plan to address challenges with many of the social determinants of health for Inuit. Numerous recommendations have been tabled in this plan. Those recommendations that correspond with the social determinants of health are outlined below:

Health Promotion and Prevention

- Greater capacity within Inuit regions to develop and deliver health promotion and prevention programs;
- Development of Inuit specific strategic plans for health promotion and prevention in partnership with relevant agencies and Inuit organizations;
- Greater attention to food security and affordability initiatives;
- Inclusion of medical and non-medical determinants of health in the development of health promotion and prevention initiatives;
- Collaboration on international circumpolar health issues and bodies that have a role to play in addressing Inuit health concerns;
- Collaboration and consultation between international and national Inuit organizations to bring Canadian Inuit health issues (best practices and challenges) to the circumpolar world and bring circumpolar issues to Canadian decision makers; and
- Development of a Circumpolar Inuit Health Action Plan to address key issues with adequate capacity to engage in important circumpolar health fora including the Arctic Council's Sustainable Development Working Group; the international Survey of Living Conditions in the Arctic (SLICA); the ongoing work of the Arctic Human Dimension Report; the AMAP Human Health Experts Working Group and its future Health Assessment; health related activities within the framework of the International Polar Year; ArcticNet; climate change fora including the health related aspects of the UNFCCC; the International Union for Circumpolar Health; the World Conservation Union (IUCN); and the International Union for Circumpolar Health.

Mental Wellness and Suicide Prevention (Celebrate Life)

- Development of Inuit specific approaches to mental wellness and suicide prevention;
- (Celebrate Life) with regard to health promotion and prevention programming, treatment, training and follow-up programming;
- Acknowledgment, recognition, and commitments to addressing the crucial linkages between non medical determinants of health, such as poverty, addictions, abuse, that affect individual, family and community wellbeing and mental wellness and suicide prevention (Celebrate Life) initiatives;

- Appropriate facilities and access to technologies in the delivery of culturally relevant mental wellness services;
- Active engagement of youth, families and communities in the development and implementation of policies and programs aimed at improving mental wellness and promoting life; and
- A continuum of care for mental health approach must be adopted to ensure Inuit have access to comprehensive services that are inclusive of traditional knowledge in or near their home communities.

Human Resources

- Increase in the number of health, environment and social/ economic human resource personnel within Inuit Nunaat through education, realistic recruitment and retention strategies, and encouragement for Inuit to enter these fields of employment;
- Identify and assist young Inuit that have an interest to work in health environment, social or economic fields
- Development of Inuit specific reporting and mentoring mechanisms that identify and track Inuit in various career fields;
- Development of a targeted approach and an educational strategy that starts with Inuit school aged children and continues throughout the scholastic lifecycle and gives exposure and training in different careers;
- Improved links to colleges, research facilities, research programs, and institutions to provide Inuit with educational, training, and employment possibilities; and
- Implementation of recruitment and retention strategies designed to encourage professionals and paraprofessionals to remain in Inuit regions.

Employment and Training

- Undertake research of the Inuit aboriginal human resource development strategy, and Inuit human resource development and capacity building;
- Development of and implementation of an Inuit Government of Canada reporting framework to ensure that Inuit will be consulted on issues that may affect Inuit human resource development;
- Maximization of Inuit participation in training opportunities and priorities;
- Increase the numbers of educated and trained Inuit filling jobs in a full spectrum of occupational categories;
- Increased participation of Inuit in apprenticeship programs; and
- Development and strengthening of recruitment and retention strategies designed to increase employment of qualified Inuit within Inuit regions and in other parts of Canada.

Early Childhood Development

- Improved culturally appropriate resources and documents in Inuit languages, enabling Inuit families to be provided with consistent and continuous support;
- Involvement of Inuit in federal government ECD initiatives, through increased communication and collaboration through an annual forum for Inuit ECD leaders to come together to share experiences, knowledge and successes as well as to deal with issues;
- Direct involvement of Inuit in the development of Inuit specific ECD initiatives; and
- Inclusion of factors such as remoteness and isolation when negotiating financial, technical, professional support for training as well as regional and community capacity building throughout Inuit regions.

Economic Development

- Improved economic opportunity partnerships and relationships;
- Greater access to economic development initiatives as well as the awareness of Inuit priorities, so Inuit are directly involved in the development and implementation of Inuit specific policies and programs;
- Inclusion of an Inuit specific perspective on issues concerning information technology;
- Improvement of the development and maintenance of social and economic factors to increase the capacity of healthy and skilled individuals and Inuit communities; and
- Development of an Inuit specific economic opportunity strategy and implementation that is relevant to Inuit identity and which increases Inuit self sufficiency.

Housing

- Development of a comprehensive Inuit specific housing strategy for Inuit regions that would, over time, effectively address and resolve the crisis;
- Identify the additional resources required over and above the initial investment of $296.4 million (source: pg 149 2006 Federal Budget: Focusing on Priorities) as a second step in addressing the crisis. In the Northwest Territories, Quebec, and Newfoundland & Labrador these housing funds are for off-reserve Aboriginal peoples;
- Enhanced economic and human development returns within Inuit regions by linkage of housing investments to economic and human resource development; and
- Increased sharing of best practices and information related to housing by creating a National Inuit Housing Working Group.

Education

- Greater collaboration between governments, including the governments of provinces and territories, and by national and regional Inuit organizations;
- Undertaking of research on relevant issues pertaining to education to improve and enhance training for Inuit teachers, curriculum developers and administrators; and

- Increased educational attainment levels by Inuit through Inuit specific curriculum while protecting, promoting and enhancing Inuit language and culture programs.

Language and Culture

- Development of a National Inuit Language Strategic Plan which will promote language and culture. This plan will outline a long term, intensive approach to the protection and enhancement of the Inuit language; and
- Strengthen the partnership between Inuit and the federal government by encouraging greater awareness in language and culture and collaborate on developing programs and services that promote the social and economic benefits of speaking the Inuit language.

Law and Justice

- Improved consultation, coordination, information sharing, and networking between Government of Canada and Inuit regions to start to develop a strategy on ways and means of addressing law and justice in and for Inuit communities;
- Sharing of services and knowledge across jurisdictions to meet the needs and rights of Inuit offenders in federal/provincial/territorial penitentiaries; and
- Development of a National Inuit Prevention/Progressive Plan with Inuit specific programs and services with ties to education and social service institutions with implementation approaches for the regions and communities.

Urban Inuit

- Data and resource research including numbers of Inuit in different urban centres, types of programs and services they are accessing, types of programs and services they could access;
- Development of urban Inuit centres to enhance and improve access to programs and services for Inuit.
- Recognition of the unique needs of the Inuit population living outside Inuit regions by developing and promoting the protection and enhancement of Inuit language and culture in these communities;

Youth

- Increased capacity at national, regional and community levels on all issues for better and efficient youth program and service delivery;
- Strengthened relationship between Inuit youth and the Government of Canada, and increase participation of Inuit youth in federal programs that affect Inuit youth;
- Increase in the number and seniority of Inuit youth employed in the Government of Canada, and in the number of Inuit youth participating in internship and other career oriented and training programs;

- Development of a stronger youth advocacy role in relation to culture and language initiatives and promotion;
- Development of holistic joint strategy for Inuit children and youth which will focus on wellness. The strategy will be developed between Inuit and the many Federal departments and agencies with a focus on Aboriginal children and youth;
- Increase accessible culturally and geographically appropriate programs and services aimed at Inuit youth; and
- Creation of an Inuit Youth Employment Strategy that would prepare and mobilize the next generation of the Inuit workforce for both labour market and traditional livelihood options.

Sustainable Health Care Funding

- Development of a relevant funding formula for Inuit regions that recognizes the cost of medical transportation, recruitment and retention strategies, training of health staff, medical supplies, and retrofitting of medical facilities;
- Development of a funding scale that considers remoteness, need, operating costs, and wage parity for workers in the health and social services sector;
- A more effective Non-Insured Health Benefits program to improve the health status of Inuit to promote improved access, including implementation of a National Inuit ID card and improvements to the actual benefit categories;
- Appropriate access to Primary Health Care and Health Promotion/ Prevention initiatives; and
- Clarification of the roles of governments and Inuit in the delivery of health care services, with appropriate Inuit involvement at all stages.

References

Archibald, L. and R. Grey. (2006) *Evaluation of Models of Health Care Delivery in Inuit Regions.* Ottawa: Inuit Tapiriit Kanatami.

Auger, N., Raynault, M. F., Lessard, R., and R. Choinière. (2004) Income and Health in Canada. In Raphael, D. (Ed.), *Social Determinants of Health: Canadian Perspectives.* Toronto: Canadian Scholars' Press Inc.: 39-52.

Banerji, A., Bell, A., Mills, E. L., McDonald, J., Subbarao, K., Stark, G., Eynon, N., and V. G. Loo. (2001) Lower Respiratory Tract Infections in Inuit Infants on Baffin Island. *Canadian Medical Association Journal.* 164 (13): 1847-1850.

Banerji, A. (2001) High Rates of Hospitalization for Bronchiolitis in Inuit Children on Baffin Island. *International Journal of Circumpolar Health*. 60: 375-379.

Berger, T.R. (2006) *The Nunavut Project. Conciliator's Final Report*. Nunavut Tunngavik Incorported. Available online at: www.tunngavik.com/documents

Bulkow, L.R., Singleton, R.J., Karron, R.A. et al. (2002) Risk Factors for Severe Respiratory Syncytial Virus among Alaska native children. *Pediatrics*, 109:210-216.

Canadian Tuberculosis Committee (CTC). (2007) Housing Conditions That Serve as Risk Factors for Tuberculosis Infection and Disease. *Canadian Communicable Disease Report*, Advisory Committee Statement (ACS) 9 – October 1, 2007.

Chan, H. M., Fedliuk, K., Hamilton, S., Rostas, L., Caughey, A., Khnlein, H. Egeland, G. and E. Loring. (2006) Food Security in Nunavut, Canada: Barriers and Recommendations. *International Journal of Circumpolar Health.* 65 (5): 416-431.

Cundill, S.E. (2007) *The Food Mail Program – Effects on Inuit (Draft)*. Ottawa: Inuit Tapiriit Kanatami

Elliott, L. and A. Macaulay. (July 2004) *Public Health Surveillance in the Inuit of Canada's Four Northern Inuit Regions: Currently Available Data and Recommendations for Enhanced Surveillance.* Ottawa: Inuit Tapiriit Kanatami.

Freudenberg, N. and Ruglis, J. (October 2007) *Reframing School Dropout as a Public Health Issue.* Preventing Chronic Disease, Public Health Research, Practice and Policy. Volume 4, No 4.

Friendly, M. (2004) Early Childhood Education and Care. In Raphael, D. (Ed.), *Social Determinants of Health: Canadian Perspectives.* Toronto: Canadian Scholars' Press Inc.: 109-123.

Hicks, J. (2007) The Social Determinants of Elevated Suicide Rates Among Youth. *Indigenous Affairs*, 4: 30-37.

Hodgins, S. (1997) *Health and What Affects it in Nunavik: How is the situation changing?* Kuujjuaq: Nunavik Regional Board of Health and Social Services.

Indian and Northern Affairs Canada (INAC). (2005) *Partnership Accord.* Available online: http://www.ainc-inac.gc.ca/nr/prs/m-a2005/02665itk_e.html

Inuit Tapiriit Kanatami (ITK). (October 20 2004) *Backgrounder on Health: For Discussion at Health Sectoral Meeting, November 4th and 5th, 2004, Ottawa, Ontario.* Ottawa: Inuit Tapiriit Kanatami. Available online: http://www.aboriginalroundtable.ca/sect/hlth/bckpr/ITK_BgPaper_e.pdf

Inuit Tapiriit Kanatami (ITK). (November 1 2004) *Backgrounder on Inuit and Housing: For Discussion at Housing Sectoral Meeting, November 24th and 25th in Ottawa.* Ottawa: Inuit Tapiriit Kanatami.

Inuit Tapiriit Kanatami (ITK). (November 15 2004) *Backgrounder on Economic Opportunities: For Discussion at the Economic Opportunities Sectoral Meeting, December 13th and 14th, 2004, Ottawa, Ontario.* Ottawa: Inuit Tapiriit Kanatami.

Inuit Tapiriit Kanatami (ITK). (December 16 2004) *Backgrounder on Accountability: For Discussion at the Accountability Sectoral Session, January 25 and 26, 2005, Ottawa, Ontario.* Ottawa: Inuit Tapiriit Kanatami.

Inuit Tapiriit Kanatami (ITK), and Inuit Circumpolar Council (ICC). (February 5 2007) *Building Inuit Nunaat: The Inuit Action Plan.* Ottawa: Inuit Tapiriit Kanatami.

Inuit Tapiriit Kanatami (ITK) (2008) *Inuit Statistical Profile.* Ottawa: Inuit Tapiriit Kanatami. Available online at: www.itk.ca.

Jenkins, A. L., Gyorkos, T. W., Culman, K. N., Ward, B. J., Pekeles, G. S., and E. L. Mills. (2003) An Overview of Factors Influencing the Health of Canadian Inuit Infants. *International Journal of Circumpolar Health.* 62 (1): 17-39.

Jenkins, A. L., Gyorkos, T. W., Joseph, L., Culman, K. N., Ward, B. J., Pekeles, G. S. and E. L. Mills. (2004) Risk Factors for Hospitalization and Infection in Canadian Inuit Infants over the First Year of Life- A Pilot Study. *International Journal of Circumpolar Health.* 63 (1): 61-70.

Kirmayer, L, Simpson, C., and M. Cargo. (2003) Healing Traditions: culture, community and mental health promotion with Canadian Aboriginal peoples. *Australasian Psychiatry*. 11 (s1): S15–S23.

Kirmayer, L.J., Boothroyd, L. J., and S. Hodgins. (1998) Attempted Suicide Among Inuit Youth: Psychosocial Correlates and Implications for Prevention. *Canadian Journal of Psychiatry.* 43: 816-822.

Kovesi, T., Gilbert, N.L., Stucco, C., Fugler, D., Dales, R.E., Guay, M., Miller, J.D. (2007) Indoor Air Quality and the Risk of Lower Respiratory Tract Infections in Young Canadian Inuit Children. *Canadian Medical Association Journal.* 177(2): 155-160.

Lambden, J., Receveur, O., Marshall, J., and H. V. Kuhnlein. (2006) Traditional and Market Food Access in Arctic Canada is Affected by Economic Factors. *International Journal of Circumpolar Health*. 65 (4): 331-340.

Lawn, J. and D. Harvey. (2003) *Nutrition and Food Security in Kugaaruk, NU:Baseline Survey for the Food Mail Pilot Project. Ottawa: Ministry of Indian Affairs and Northern Development.*

Little, L. (Spring 2006) *A Discussion of the Impacts of Non-Medical Determinants of Health for Inuit Mental Wellness (Draft).* Ottawa: Inuit Tapiriit Kanatami.

National Aboriginal Health Organization (NAHO) – Ajunnginiq Centre (September 2004) *What Sculpture is to Soapstone, Education is to the Soul: Building the capacity of Inuit in the health field.*

National Aboriginal Health Organization (NAHO) – Ajunnginiq Centre (2006) *Alcohol Problems and Approaches: Theories, Evidence and Northern Practice.*

Nunavut Department of Health and Social Services (NDHSS). (2005) *Social Determinants of Health in Nunavut Workshop: Final Report.* March 8-10, 2005, Iqaluit.

Nunavut Tunngavik Incorporated (NTI). (2005) *Annual Report on the State of Inuit Culture and Society: Housing in Nunavut.* Iqaluit: Department of Social and Cultural Development, Nunavut Tunngavik Incorporated.

Nunavut Tunngavik Incorporated. (2006) *Annual Report.* Iqaluit: Nunavut Tunngavik Incorporated.

Nunavut Tunngavik Incorporated and Government of Nunavut. (March 2006) *A Consultation-Based Review of the Harvester Support Programs of the Government of Nunavut and NTI: Final Report.* Iqaluit: Nunavut Tunngavik Incorporated and Government of Nunavut.

O'Donnell, V. and H. Tait. (2003) *Aboriginal Peoples Survey 2001- Initial Findings: Well-being of the non-reserve Aboriginal Population.* Ottawa: Statistics Canada.

O'Neil, J.D. (1994) Suicide Among Canadian Aboriginal Peoples. *Transcultural Psychiatric Research Review*. 31 (1): 3-58.

O'Neil, J. D., Moffatt, M. E. K., Tate, R. B. et al. (1994) Suicidal Behaviour Among Inuit in the Keewatin Region, NWT. In Petursdottir, G., Sigurdsson, S. B., Karlsson, M. M., Axelsson, J., eds. Circumpolar Health 93. *Arctic Medical Research. 1994; 53 (suppl 2): 558-561.*

O'Neil, J. D., Koolage, W. W., and J. M. Kaufert. (1988) Health Communication Problems in Canadian Inuit Communities. *Arctic Medical Research.* 41 (Supp 1): 374-378.

Public Health Agency of Canada (PHAC). (in preparation) *Tuberculosis in Canada – 2006*. Ottawa: Public Health Agency of Canada.

Raphael, D. (2004) Introduction to the Social Determinants of Health. In Raphael, D. (Ed.), *Social Determinants of Health: Canadian Perspectives.* Toronto: Canadian Scholars' Press Inc.: 1-18.

Rogan, A. (April 2003) *Addressing the Cost of Living in Nunavut: Discussion Paper Four.* Iqaluit: Nunavut Employees Union.

Royal Commission on Aboriginal Peoples. (1995) *Choosing Life: Special Report on Suicide Among Aboriginal People.* Ottawa: Canada Communication Group.

Statistics Canada (StatsCan). (March 2006) *Harvesting and Community Well-Being among Inuit in the Canadian Arctic: Preliminary findings from the 2001 Aboriginal Peoples Survey- Survey of Living Conditions in the Arctic.* Ottawa: Statistics Canada, Ministry of Industry.

Statistics Canada (StatsCan). (2008). *Aboriginal Peoples in Canada in 2006: Inuit, Metis and First Nations.* 2006 Census: 19-16.

Steenbeek, A., Tyndall, M., Rothenberg, R., and S. Sheps. (2006) Determinants of Sexually Transmitted Infections Among Canadian Inuit Adolescent Populations. *Public Health Nursing.* 23 (6): 531-534.

Thompson, John. (2007) *Nunavut sees big jump in graduates, dropouts* Nunatsiaq News, September 21, 2007

Waldram, J. B., Herring, D. A., and T. K. Young. (2006) *Aboriginal Health in Canada (2nd ed): Historical, Cultural, and Epidemiological Perspectives.* Toronto: University of Toronto Press.

Wexler, L. (2006) Inupiat Youth Suicide and Culture Loss: Changing community conversations for prevention. *Social Science and Medicine.* 63: 2938-2948.

Young, K. (2008) Is Cancer Increasing Among the Circumpolar Inuit? *Abstract – Arctic Change 2008 Conference, Quebec City, Quebec, December 8-11, 2008.*

Young, T. K. (1996) Sociocultural and Behavioural Determinants of Obesity Among Inuit in the Central Canadian Arctic. *Social Science and Medicine*. 43 (11): 1665-1671.

Young, T. K. and Mollins, J. (1996) The Impact of Housing on Health: an ecological study from the Canadian Arctic. *Arctic Medical Research.* 55: 52-61.