

**Social Determinants of
Inuit Health in Canada:**
A discussion paper



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Introduction

A significant health gap exists in Canada between Inuit and non-Inuit Canadians. Inuit suffer much lower life expectancies than other Canadians, comparatively high rates of infant mortality, the highest suicide rates of any group in Canada, and disproportionately higher rates of chronic illness and infectious disease, heart disease, diabetes, and respiratory illness. Existing research suggests that this health gap in many respects is a symptom of poor socioeconomic conditions in Inuit communities which are characterized by high poverty rates, low levels of education, limited employment opportunities, and inadequate housing conditions.

The purpose of this ITK paper is to outline the social determinants of health currently affecting Inuit in Canada and provide a summary of existing research to guide future action. This paper is organized into four sections: Inuit health status in Canada; overview of the social determinants of Inuit health; role of self-determination in Inuit health; and a conclusion. Based on a broad review of literature focusing on Inuit health, the following social determinants are outlined in this paper: acculturation, productivity, income, housing, education, food security, health care services, social safety net, quality of early childhood, addictions and the environment.

Inuit take a holistic view of health and strongly believe that significant improvements to Inuit health can be made by addressing current socioeconomic conditions. ITK has a pivotal role in supporting such efforts and as a priority works toward policies and initiatives that are Inuit-specific and improve health conditions in Inuit communities.

Inuit Health Status in Canada

Most of the approximately 45,000 Inuit who live in Canada reside in 53 remote Arctic communities in four regions: Nunavik (Quebec), Nunatsiavut (Labrador), Nunavut, and the Inuvialuit Region of the Northwest Territories (NWT) (see map in Appendix 1). The Inuit population can be characterized as young and growing at twice the rate of the general Canadian population. In 2001, more than 57% of Inuit were under 25 years of age with the Inuit population expected to reach more than 60,000 by 2016.

Overall, there is a general consensus that Inuit suffer poorer health than other Canadians. For example, key indicators of health such as infant mortality rates are high in Inuit communities while life expectancies are well below Canadian averages. In 1996, the infant mortality rate was 20.9 and 17.9 deaths per 1000 live births in Nunavik and Nunavut, respectively; whereas, the national infant mortality rate was 5.8 deaths per 1000 live births (Jenkins et al., 2003). The leading causes of death for Inuit infants were congenital, sudden infant death syndrome (SIDS) and infections (Ibid). Statistics Canada has calculated lower life expectancies among Inuit compared to the national norm with

Inuit life expectancy in Nunavut at 67.7 years for males, and 70.2 years for females, compared to 77.0 years and 82.2 years respectively Canada-wide.

Another indicator of the poor health outcomes in Inuit communities is the high number of youth suicide. Suicide is a demonstrative sign of socioeconomic distress and a strong manifestation of social exclusion, especially in Inuit males between the ages of 15 and 24 where suicide is most prevalent. From 1999 to 2003, the suicide rate among Inuit was 135 per 100,000; four times higher than that of First Nations (24.1) and eleven times higher than the rate for all Canadians (11.8) (ITK and ICC, 2007: 78).

Recent research (Hodgins, 1997; Banerji, 2001; Banerji, 2001) outlines the higher rates of chronic illness and infectious disease such as respiratory infections and anemia among Inuit infants and children. These studies link many health problems to crowded and poor quality housing, unemployment, marginal access to health services, food insecurity, as well as behavioral and environmental factors. One such study in Nunavut found 306 of 1000 infants were hospitalized for bronchiolitis during their first year of life (Banerji, 2001). This high rate of bronchiolitis and other respiratory tract infections were attributed to risk factors such as household crowding, exposure to tobacco smoke, and defects in immunity (Jenkins et al., 2003). At the same time, 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 (Hodgins, 1997: 206-207).

Substance abuse is another challenge facing Inuit communities. Alcohol is implicated in most episodes of violence and a large percentage of injuries while smoking is much more prevalent in Inuit communities compared to 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: 81). Furthermore, 62% of Inuit women who were pregnant in 2001 smoked daily.

While risk behaviors such as alcohol abuse and smoking no doubt injure health, their prevalence in Inuit communities is symptomatic of deeper social and economic problems. Thus, underlying socioeconomic inequalities causing serious daily stress and unhealthy coping mechanisms should be viewed as the fundamental determinants of health.

Overview of Social Determinants of Health for Inuit

Background and Definition

While comprehensive data on Inuit health and socioeconomic indicators is relatively scarce, a number of regional studies exist that focus on specific social determinants of health, such as food security (Chan et al., 2006; Lambden et al., 2006), access to appropriate health care (O’Neil et al., 1988), housing (Young, 1996), and acculturation (Condon, 1990; Steenbeek et al., 2006). Other sources of information on Inuit health and its social determinants include government/organization reports such as the Ajunnginiq Centre report on literacy and health (Korhonen, 2006); the ITK report on non-medical determinants of Inuit mental wellness (Little, 2006); a report on community well-being from Indian and Northern Affairs Canada (Senecal, 2006); and various reports on food security (Lawn and Harvey, 2003), subsistence harvesting (Statistics Canada, 2006), and suicide.

As defined in World Health Organization 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. For the purposes of this document, social determinants of health as they relate to Inuit will be discussed as they were during a Nunavut Department of Health and Social Services (NDHSS) workshop in May 2005. This meeting of health workers and Inuit stakeholders from across the territory identified the socioeconomic factors most relevant to Inuit health. These key health determinants form the basis for discussion in this document and include:

- acculturation;
- productivity;
- income distribution;
- housing;
- education;
- food security;
- health care services;
- social safety nets;
- quality of early life;
- addictions; and
- the environment.

Although the social determinants outlined at the Nunavut workshop were devised for that region, they will be generalized here to encompass the social conditions found in all Inuit communities in Canada.

Acculturation

Acculturation has occurred very rapidly for Canadian Inuit from a traditional way of life to a modern 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/bread-winners and care-givers, and Inuit identity was strongly tied to the natural environment with traditional knowledge and cultural values passed from elders to youth through storytelling, example-setting and life experience.

During the 1950s, the Canadian government began to actively encourage Inuit to settle in permanent communities where cheap housing, medical facilities, and modern stores were built. Although permanent settlement has led to a decline in mortality rates and certain diseases over the past 60 years, Inuit have experienced dramatic socio-cultural changes which undercut Inuit long-term health in several ways. Now fewer Inuit live solely off the land and many Inuit have become dependent on the limited job opportunities in the community and social assistance within a wage economy. The movement from traditional forms of subsistence to a dependence on a wage economy has radically disrupted Inuit social and environmental relationships and is recognized as contributing 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 at the time of the survey; 44 % of those aged 45 to 54; 26% of those aged 55 to 64; and 39% of those aged 65 and over attended a residential school. While boarding at the schools for nine months per year that were run by missionaries and located hundreds or thousands of kilometers from home, many Inuit children lost their familial, communal, and socio-cultural connections, had no opportunity to eat country foods, were banned from speaking Inuit languages, and were forced to follow southern norms.

Residential school experiences created a rift between elders and youth, inhibiting the intergenerational exchange of traditional knowledge, cultural values, parenting skills and language that is crucial to healthy relationships and identity formation. Physical, sexual, and mental abuse of pupils was also not uncommon in residential schools. Cultural repression, assimilation, and abuse combined to make some Inuit feel ashamed of their identities, alienated, 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 Inuit health and mental well-being today.

The rift felt between generations of Inuit today is not only the result of residential schooling, but is also due to Inuit youth being estranged from the socializing influence of traditional elders. Inuit youth today are mainly socialized by their schools (which are mostly modeled after southern schools), the expanded peer group found in settled communities, and southern media (Condon, 1990). As a result, many elders observe that generational roles have changed, and they lament that youth do not listen to them anymore (Wexler, 2006).

Consequently, elders and youth alike feel as if their roles are unclear. This uncertainty of purpose and identity is particularly challenging for youth, who are taught to appreciate the hardships of their parents or grandparents raised on the land, but feel weak themselves because they cannot succeed in either the traditional or the modern world (Wexler, 2006). Inuit youth thus experience social exclusion in both worlds. They are struggling to find a meaningful way to engage their communities with few prospects for employment and no apparent need for traditional skills or knowledge. One elder writes, “As a result of not knowing what to do, many [young people] turn to alcohol and drugs to feel good” (Wexler, 2006: 2941).

This use of alcohol and drugs is another issue that has brought a host of social and physical health problems with it. The complex relationship between addictions and Inuit health will be discussed within its own section below.

Actions to address acculturation

In spite of the socio-cultural upheaval that Inuit have experienced, one indicator of cultural well-being remains strong: use of the Inuit language. Today, Inuktitut remains one of the most resilient Aboriginal languages in the country. In 2001, 82% of Inuit were conversant with Inuktitut (O’Donnell and Tait, 2003: 29) while almost nine-tenths of Inuit adults stated that keeping, learning or relearning their language was very or somewhat important to them (Ibid: 32).

Numerous Inuit organizations and governments are encouraging the use of Inuktitut at the national and regional level. ITK and the Inuit Circumpolar Council (ICC), for example, have proposed the development of a National Inuit Language Strategic Plan, which will promote Inuit language and culture and outline a long-term, intensive approach to the protection and enhancement of the Inuit language (ITK and ICC, 2007). The Government of Nunavut and Nunavut Tunngavik Incorporated, the organization that represents Inuit under the Nunavut Land Claims Agreement, are also aiming to make Inuktitut the dominant language in their institutions, and establishing an Inuit Language Protection Act (Nunavut Tunngavik Incorporated, 2006). The federal government is also being encouraged to play a role in protecting and enhancing Inuktitut by making it an official language of Canada.

Efforts are also being taken to support Inuit language and culture at the community level. For example, women in Labrador have developed culture and language programs for youth by holding Cultural Days to highlight the uniqueness of Inuit culture (Aboriginal

Women's Conference, 2006). Language camps for Inuit youth and adults are also in use to develop language and cultural skills.

Productivity

Productivity was identified as an important Inuit-specific social determinant of health and as a more accurate term for Canadian Inuit, as opposed to employment, since many Inuit men and women still work 'informally' by harvesting country food, producing goods for their families and providing voluntary services in their communities. Although these activities are not usually considered employment, they should be considered when addressing the social determinants of Inuit health (Elliott and Macaulay, 2004).

The prevalence of traditional activities underscores the lack of meaningful employment in many Inuit communities. Unemployment rates for Inuit men (22%) are three times higher than those for non-Inuit Canadian men (7%) (Senecal, 2007: 10). Overall, the unemployment rates were high in all Inuit regions, but by far the highest in Labrador (Nunatsiavut) where they were 40% for Inuit men (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 Pricewaterhouse Coopers in Nunavut found that the most common reason given by Inuit for not being employed was that jobs matching their skills were unavailable (Senecal, 2007).

Anecdotal evidence suggests that scarce employment opportunities in Inuit communities contribute to feelings of low self-esteem, listlessness, violence and suicide. O'Neil (1994) found that in the Keewatin 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.

Reviewing the non-medical determinants of Inuit mental health in Canada, Little (2006) describes how unemployment harms the Inuit:

“With less than half of working age Inuit employed and Inuit unemployed at three times the national average, 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. These conditions negatively impact Inuit mental wellness.”

Overall, participation in traditional harvesting practices has been observed to have a positive impact on Inuit health. Not only does the consumption of traditional foods act as a benefit since country food in the Canadian Arctic is highly nutritious, (Lawn and Harvey, 2003), but the practice of harvesting itself also provides an economic cushion for low-income families, enabling them to spend less on store-bought foods and enhancing general food security.

The socio-cultural aspects of harvesting are vital to Inuit well-being since they reinforce a rapport with the land that traditionally cultivated Inuit culture, identity, and feelings of

self-reliance. Post-harvesting activities are also important for strengthening familial and communal bonds, because Inuit have a deeply embedded practice of sharing country food with family and community members (Statistics Canada, 2006). Additionally, the production of arts and crafts using harvested materials is an opportunity for elders to pass on skills and knowledge to younger generations. Thus, traditional food use has deeper implications than nutrition; it buttresses cultural practices and social norms that emphasize sharing, cooperation, and generosity (Willows: 2005) and is holistically entwined with culture and personal identity, as well as with physical health.

Actions to address productivity

At the regional level, concrete steps have been taken to increase employment prospects in Inuit communities through the use of Impact and Benefit Agreements (IBAs) between developers and Inuit communities before any major development projects go forward in Inuit Land Claims areas. IBAs are considered an essential measure for Inuit to achieve self-determination, diversify their local economies, earn revenue, gain training and employment opportunities, and minimize deleterious impacts of development projects in their communities. IBAs have recently been negotiated for several mining projects in Inuit regions, including the Jericho Diamond Mine in the Kitikmeot region of Nunavut and the Voisey's Bay Nickel Mine (VBNC) in Labrador, ensuring Inuit involvement in and oversight of the projects. It is estimated that 40 to 116 jobs will be created during different phases of the Jericho project for example and will be largely filled by Inuit Kitikmeot communities (Indian and Northern Affairs Canada, 2005). As of December, 2005, the Voisey's Bay project had recruited 419 people, 211 of whom were either Innu or Inuit (VBNC, 2005).

Another program that has successfully addressed Inuit employment issues is the Aboriginal Human Resources Development Strategy, a 5-year program approved by the Government of Canada in 1999. The purpose of this \$1.6 billion program is to assist Aboriginal communities and organizations to develop and implement their own human resources and employment programs. The program allocates \$25 million to help Inuit prepare for, obtain, and maintain employment, and includes funds for youth programs, child care, and capacity building (Muylders and Roberts, 2004).

At the community level, vocational training, career counseling, and other employment programs exist, however more support is needed. Furthermore, to establish long-term sustainable employment opportunities in communities, growth and diversification of the private sector is vital (ITK, 2004). ITK stresses the importance of maximizing the "capital assets" of Inuit regions, improving physical capital (buildings, infrastructure), human capital (training, education, social circumstances), natural capital (mineral resources), and organizational capital (strengthening local and regional Inuit organizations) (Ibid).

Traditional harvesting is very much alive in Inuit communities to continue supporting Inuit families and communities. The Aboriginal Peoples Survey of 2001 found that 7 out of 10 Inuit adults in the Canadian Arctic had harvested country food in the year prior to the survey (Statistics Canada, 2006: 10) while at least 80% of Inuit households in

Nunavut, Nunavik, and Labrador had at least one member that was involved in harvesting activities (Ibid: 11).

Harvesting activities are being supported by regions through Harvester Support Programs, which provide financial assistance to harvesters who need hunting equipment and sewing supplies. NTI and the Government of Nunavut held focus groups to discuss the impacts and needs of the program, and participants agreed that the program has a “strong impact” on harvesters; however, they also identified a need for more funding and new programs to teach Inuit youth harvesting and survival skills and how to maintain equipment (NTI and GN, 2006).

Income Distribution

Inuit view income distribution as a key determinant while Health Canada describes income as “the most important determinant of health” (Little, 2006: 5). It is difficult to distinguish the effects of income from the effects of education and employment on health, because the three factors are interdependent. However, it is well recognized that socioeconomic inequalities lead to marginalization, limiting access to education, employment, good housing and nutritious food. Poverty also weighs heavily on mental well-being by lowering self-esteem, increasing dependence, and vitiating one’s ability to participate fully in society (NDHSS, 2005; Auger et al., 2004). Thus, income affects health directly and indirectly, by impacting other social determinants.

The dearth of jobs in Inuit regions brings few opportunities for generating income. In Nunavut, the average annual income for Inuit was \$19,686 (Little, 2006: 6). Income disparities are particularly pronounced between regional centers and small outlier communities. In 1992, the median annual income in Kuujuaq (pop. 2132), the administrative capital of Nunavik, was \$25,700, while in Puvirnituq (pop. 1169), a smaller Nunavik community on Hudson Bay, was \$15,900, and in even smaller Nunavik communities income ranged from \$11,500 to \$14,500 (Hodgins, 1997: 126).

Senecal (2007) notes that Inuit men are underrepresented in the skill-level-A category of occupations, which includes senior and middle managers and professionals. Inuit men are also underrepresented in full-time positions, since many work part-time or seasonally. In Nunavik, one-third of full-time jobs are held by non-Inuit, who comprise only 10% of the population (Hodgins, 1997: 123). Hodgins notes that the majority of Inuit who are employed full-time are still disadvantaged, because they work for municipalities, co-ops and local businesses that provide scant benefits and lower pay (Ibid). People actively engaged in the traditional economy do not receive benefits either.

A final factor to consider when examining income and its relationship to Inuit health is high living costs in the Arctic. The cost-of-living in the Canadian Arctic is much higher than in southern Canada with heating, electricity, water, gasoline, household goods and grocery foods costing significantly more. It is estimated that for every \$100 spent on goods and services in southern Canada, \$175 would be spent on the same goods and services in Nunavut (Rogan, 2003: 1). The proportion of total household expenditures

spent on food is two times higher in Nunavut than the rest of Canada as a result (Ibid). This elevated cost-of-living stresses low-income households and prevents families from investing in other social health determinants such as education, quality foods, harvesting activities and child care.

Actions to address income distribution

Actions that address Inuit education and employment problems will likely have a positive effect on income and its distribution in Inuit regions. ITK, recently released an Inuit Action Plan (ITK and ICC, 2007) that will provide the Government of Canada and Inuit with a common set of goals to work towards. It presents the following priorities to remedy employment and, by extension, income shortfalls:

- Increase numbers of educated and trained Inuit filling jobs across a broad range of occupational categories;
- Increase numbers of Inuit in apprenticeship programs;
- Maximize Inuit participation in training opportunities; and
- The Government of Canada must identify resources for the recruitment and retention of qualified Inuit in gainful employment within Inuit regions and other parts of Canada.

To address the high cost-of-living in the north and other Inuit-specific factors affecting the adequacy of their incomes, the Nunavut Employees Union recommends that salaries, incomes, and social assistance be adjusted to account for: household size; high food costs; commodities; utilities and travel; and whether housing is private or subsidized (Rogan, 2003).

Housing

“The overcrowding of housing is a clear non-medical health indicator for Inuit.” (ITK, 2004: 5).

Housing shortages and poor quality housing are an urgent public health priority for all Inuit regions in Canada. Insufficient housing leads to overcrowding, deficient sanitation and ventilation, the spread of infectious diseases, psycho-social stresses, and violence (Bryant, 2004). Among Inuit, housing problems have been associated with low achievement levels in schools, spousal abuse, respiratory tract infections among infants, depression, and substance abuse (ITK, 2004; NTI, 2005).

The majority of Inuit live in social housing units and, since 1993 when the federal government cut its spending to Inuit for social housing, all Inuit regions have witnessed a growing housing crisis, especially Nunavut and Nunavik. Inuit as a group suffer the worst overcrowding in Canada. It is estimated that 53% of Inuit households are overcrowded, and it is not uncommon for seven or more people to inhabit a single household (ITK, 2004). Fifteen percent of Nunavut’s population is on waiting lists for public housing. ITK estimates that 3300 houses are needed to address the current housing shortage in

Nunavut, and an additional 250 units per year would be required thereafter (Ibid: 6). 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 'core need', meaning that they were overcrowded, in need of repair, or had rents exceeding 30% of the household income (ITK, 2004: 9).

Hodgins (1997: 30) 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. Battered women can seldom find alternative accommodation in their communities due to the lack of housing and shelters (Ibid). Furthermore, Hodgins (1997) posits that Nunavik's incidence of active tuberculosis, which is twenty times higher than in southern Canada, is at least partly attributable to housing, since crowding propagates infectious diseases.

Actions to address housing

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: 4). 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: 9).

This positive result has prompted other Inuit regions to commit the federal government to funding an Inuit and Northern housing package in their regions (NTI, 2006: 24). 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: 25) 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.

Education

Several studies and reports (Bjerregaard and Young, 1998, Young, 1996, Little, 2006; Korhonen, 2006 and Kirmayer et al., 1996) illustrate the interconnectedness of education and Inuit well-being suggesting that the relationship between higher levels of education and improved health as espoused in international studies also applies to Inuit. Education here refers to learning throughout the life span and includes early childhood development initiatives, primary school, secondary school, post secondary school and job skills training. Overall, access to appropriate education is limited in the North with a strong need to enhance child care infrastructure and early childhood programming in Inuit communities.

While gains have been made by Inuit in formal education and school attendance over the past two decades, there is still a pronounced disparity between the educational attainment of Inuit and non-Inuit Canadians. Between 1981 and 2001, the proportion of Inuit adults who had completed post-secondary education rose from 10% to 24%, but it remained substantially lower than the 38% of non-Inuit Canadians who had completed post-secondary education (Senecal, 2006).

Most Inuit communities now offer schooling up to the end of high schools, however drop out rates continue to be higher in Inuit communities than the Canadian average. In 2001, 59% of Inuit aged 20 to 24 had not completed high school (O'Donnell and Tait, 2003: 18). Additionally, educational standards are typically lower in Inuit schools than in non-Inuit schools. In Iqaluit, Nunavut, for example, teachers claim that three-quarters of grade 8 students read below their grade level, and many students who do graduate complain that they are ill-prepared for university and have to spend a year or two taking college courses to improve their literacy (Korhonen, 2006: 2).

Advancing literacy and educational attainment is a critical step for improving Inuit health and enabling Inuit to flourish. 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; and the exacerbation of illnesses when patients cannot use medications correctly or make sense of information given to

them by a healthcare practitioner (Korhonen: 2006). Indirectly, low literacy contributes to poor health outcomes by influencing other social health factors, such as employment, income, access to housing, and access to societal supports.

People with limited literacy are more likely to be unemployed and to be working for minimum wage (Ronson and Rootman, 2004). They are also more likely to live and work in unhealthful environments. Furthermore, people with limited literacy are not as aware of societal supports and make less use of preventive services (Ibid). Consequently, they tend to have higher stress levels and feel more vulnerable and alienated, and they may resort to adverse coping practices. On the positive side, educational attainment and literacy can facilitate one's access to health-related knowledge, rewarding employment, higher income, better housing and further education, which in turn foster self-empowerment (Korhonen, 2006).

Inuit are challenged by numerous barriers to attaining high levels of education. Crowded housing is one barrier which makes it difficult for young Inuit to find a quiet study space in their homes. Also, some Inuit feel unsupported by their parents, especially if their parents dropped out of school at an early age. Another educational barrier confronting Inuit are school curricula that may have been developed in the south and which lack cultural relevance. Thomas Berger's final report on the implementation of the Nunavut Land Claims Agreement states, "A broken school system is at the root of Nunavut's problems" (McCluskey, 2006: 2), pointing to the lack of a comprehensive, well-designed bilingual education system that can produce graduates who are competent in both Inuktitut and English. Instead, many Inuit who go through the school system feel proficient in neither.

In addition, very few Inuit high school students take advanced courses in science, math and English and consequently do not have the prerequisites necessary to progress to many post-secondary programs. A final factor inhibiting Inuit educational achievement is the absence of post-secondary programs in Inuit communities. Inuit interested in pursuing higher education usually have to move to city centers in the south to attend college or university, which is a significant deterrent.

In the Inuit context, education as a social influence on health should not refer solely to formal education and literacy. When evaluating education among Inuit, traditional knowledge should also be taken into account, as possession of traditional knowledge and survival skills likely benefits one's health. To the author's knowledge, no Inuit-specific study exists correlating degree of traditional knowledge to health, though such a correlation has been delineated in other populations. Furthermore, Inuit organizations emphasize that the endurance of traditions and the existence of opportunities for Elders to pass knowledge and skills to youth are essential to community well-being. Thus, the relationship between traditional education and Inuit health should be included in any discussion of educational determinants of health.

Actions to address education

Addressing education gaps is critical for improving the health status, employment prospects, and self-governance of Inuit. The Government of Nunavut (2004), the Task Force on Aboriginal Languages and Cultures (2005), Thomas Berger, and the Ajunnginiq Centre have all put forward reports outlining policies and programs that would assist Inuit in meeting their educational objectives. These reports highlight a number of shared priorities and important strategies.

One commonly expressed need is for the development of a bilingual education system that reflects the history, values, and beliefs of Inuit, while fostering students who are equally competent in English and Inuktitut and competent in high-level academic courses by the time they graduate. The Berger report for example recommends that Inuit schools help students establish a strong foundation in their Inuit language first, then introduce English/French as a second language. Fluency in one language will facilitate learning of the second language.

The development of bilingual education strategies in all Inuit regions involves a tremendous amount of work and requires significant resources from territorial and federal governments. One key factor in order for a bilingual education system to succeed is the training of a greater number Inuit teachers in the school system (Government of Nunavut: 2004). The Kativik School Board of Nunavik provides an example by establishing an Inuit teacher training program in collaboration with McGill University. This program has produced a significant number of Inuit teachers with teachers-in-training taught by Inuit in Inuktitut. This system may be partially responsible for the fact that, of all four Inuit regions, Inuktitut is strongest in Nunavik, where 95% of Inuit declared Inuktitut their mother tongue (Senecal, 2006).

Food Security

Food security is a direct determinant of physical and psychological health and refers to “the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so” (McIntyre, 2004: 174). 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.

An alarming percentage of Inuit are food insecure with both market foods and country foods. 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). 37.7% of respondents in the same age group reported that hunting was also unaffordable. 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.

There are several factors that inhibit many Inuit's 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. As noted earlier, income levels may also be insufficient to cover hunting and fishing costs, preventing families from bolstering their food security with country food.

A second barrier to food security for Inuit relates to education since 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. Healthy perishable foods are often rotten or damaged by the time they reach community stores.

Chan et al. (2006) write that the families most vulnerable to food insecurity in the Canadian Arctic are those who have no active hunter, low cash-flow (large families, single mothers, families on social assistance), or have members with substance abuse problems. Elders with dependents are also at risk for food insecurity.

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.

Actions to address food security

The Food Mail Program is one successful action that addresses 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. As mentioned earlier, harvester support programs are 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).

Health Care Services

Inuit have limited access to appropriate health services arising from geography; program design and funding; capacity and resources; and language and culture. Most Inuit communities only have primary health care services, so Inuit must travel to regional centers or southern cities to consult medical specialists, have operations, and deliver babies. 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 focus on the cultural appropriateness of services since few nurses in the north are Inuit. 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.

Actions to address health care services

Inuit are calling for a change in the structure of health services funding and delivery through Inuit-specific legislation that grants them autonomy in the design, development and delivery of programs (ITK and ICC, 2007). Currently, provincial/territorial and other agencies provide health services to Inuit in ad hoc fashion, through a variety of delivery methods. Inuit need Inuit-designed and Inuit-run treatment programs and services that incorporate traditional approaches to healing, respond to community priorities, and provide a continuum of care (Nunavut Board of Health and Social Services, 2005; Archibald and Grey: 2006). This can only be achieved through increases in federal and territorial funding for health and education services, and capacity building.

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 capita allocations as it allocated now. With this in mind, the federal government must recognize the unique realities of Inuit: the high costs of medical transportation, retaining southern practitioners and training new Inuit health staff. Inuit suggest all stakeholders collaborate on clarifying their roles and responsibilities and an Inuit Health Directorate be established at the federal level, which would establish, coordinate, and implement Inuit-specific policies (Aboriginal Peoples Roundtable: 2004).

Improvement in health services must include increased education and training of Inuit nurses, doctors, and mental health workers. ITK writes: “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” (quoted in Archibald and Grey, 2006).

Inuit have already made some progress on this front. The Arctic College in Iqaluit offers a nursing program in partnership with Dalhousie University, and birthing centres staffed by Inuit midwives are appearing in various Inuit communities. The Inuulitsivik Health Centre in Puvirnituk 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.

“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: 61).

Social Safety Nets

Participants at the Social Determinants of Health in Nunavut Workshop (NDHSS, 2005) identified one’s 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 dominant culture. Some Inuit grandparents and grandchildren may have difficulty communicating 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 and community and treatment received at the schools.

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: 231-234). 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: 53), 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.

Actions to address the social safety net

Communities are working to find ways to strengthen social supports to deal with the social ills that have recently arisen, including the high rate of youth suicide. Shelters, day care centers, and other social service centers are springing up. Also, as with health services, social services should actively engage youth and families in the development of their programs, integrating Inuit-specific knowledge and traditions, and increasing awareness among community members about available services (ITK and ICC, 2007).

The Tukisigiavik Centre in Iqaluit is one example of a culturally appropriate community support centre that offers counseling, healing, and other services. Staffing includes two counselors and Elder advisors who assist people with a variety of issues including homelessness, family problems, parenting, anger management, employment strategies, and acquiring traditional skills. The centre benefits the community in several ways: it offers services close to home; it provides local employment opportunities for youth and elders; and it reduces the need for expensive medical transfers to the south (George, 2004).

At the societal level, church groups provide meaningful support to many Inuit, while governmental supports include Employment Insurance and social assistance. However, overall financial assistance from the government is insufficient, because it is not adjusted to the high cost-of-living in the north. Ultimately, the federal government must tailor its assistance programs to the unique needs of Inuit living in the north.

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, affecting 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: 211).

Actions to build quality early childhood

An effective and holistic approach to improving the quality of early life for Inuit must address all social determinants of health, particularly education, housing, income, and food security. Hodgins (1997) recommends the "universal intervention" of pre-Kindergarten to give Inuit children an enriched learning environment. In this way, communities could identify infants and young children at risk for poor development and provide parental support. Overall, emphasis should be placed on the prevention of early childhood development problems.

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

Although addictions were identified as a social determinant of Inuit health in Nunavut, they are also a response to socioeconomic circumstances. Addictions also fall under the category of personal behaviors, so they are not discussed at length here. However, two points are worth noting. 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).

Environment

The environment is not conventionally considered a “social” determinant of health, but for Inuit it is a key determinant of health and worthy of mention. The Nunavut Department of Health and Social Services (2005: 17) writes, “If the health of the land is endangered then so is the health of the people.” 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: the road back to health

“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” (Boyer, 2006: 6).

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.

While each social determinants health mentioned in the above section 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 and that self-determination is a vital means by which Inuit can address the socioeconomic inequalities influencing their health. Since the 1970s, Canadian Inuit have progressed steadily 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 a “first step” toward self-determination and 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, including: 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; and they recognize the establishment of an Inuit Relations Secretariat within Indian and Northern Affairs Canada.

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). 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.

With adequate financial support from the federal government, Inuit governments can collaborate with regional Inuit associations to deliver programs desperately needed in Inuit communities. Regional Inuit associations are ideally situated to discern the priorities and assets of each community and to 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.

Conclusion

Inuit are making great efforts to address the socioeconomic conditions in their communities such as high rates of suicide, respiratory tract infections, smoking, and other ailments. These conditions correlate with widespread housing shortages, unemployment, acculturation stress, inadequate incomes and low educational attainment through 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.

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” (quoted in Elliott and Macaulay, 2004: 4).

Historically, surveys 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 surveys must examine issues such as food security, acculturation, level of political involvement/self-determination, and productivity as well as include accurate ethnic identifiers, so Inuit data can be distinguished from other Aboriginal groups in Canada. Also, surveys on Inuit health should use health indicators that are specific to and meaningful for Inuit such as those explicitly identified by ITK (Jeffery et al., November 2006). This change in focus would facilitate comparative and correlative analyses of social factors and health while at the same provide a more realistic perspective of Inuit health for Inuit organizations and governments.

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 the 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.

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