



PUTTING HEALTH INTO HOUSING

« WHERE WE LIVE MATTERS »

Brief submitted to the Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities

By the

Nunavik Regional Board of Health and Social Services

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INTRODUCTION

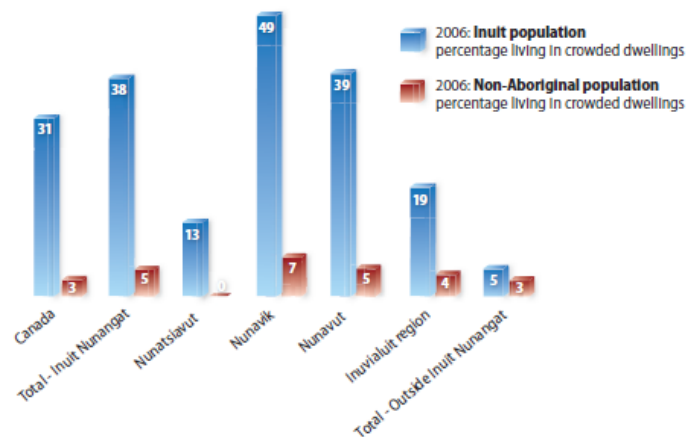
Housing is central to everyday living. It is a house, a home, a neighbourhood. For many Inuit, however, it is not the safe haven and source of security that it is for the majority of Canadians; rather, it is a challenge to health and well-being, and in turn, a significant barrier to sound social and economic development in the Inuit homelands (Inuit Nunangat).

In a 2009 report on the housing situation in Nunavik, the Director of Public Health outlined the health risks associated with overcrowding and lack of adequate housing in the communities of the region. The recent tuberculosis outbreaks are prompting us to issue once again a statement on the housing conditions in Nunavik and its impact on the physical and mental health of Nunavimmiuts.

DESCRIBING THE HOUSING SITUATION IN NUNAVIK

According to Statistics Canada Census data for 2006, 49% of Nunavik Inuit were living in crowded dwellings. Not only is this more than 5 times the proportion for Nunavik non-Aboriginal population, it is also the highest overcrowding rate across all other Inuit regions.

Figure 1: Percentage of Inuit and non-Aboriginal populations living in crowded dwellings in 2006, Inuit Nunangat and Canada

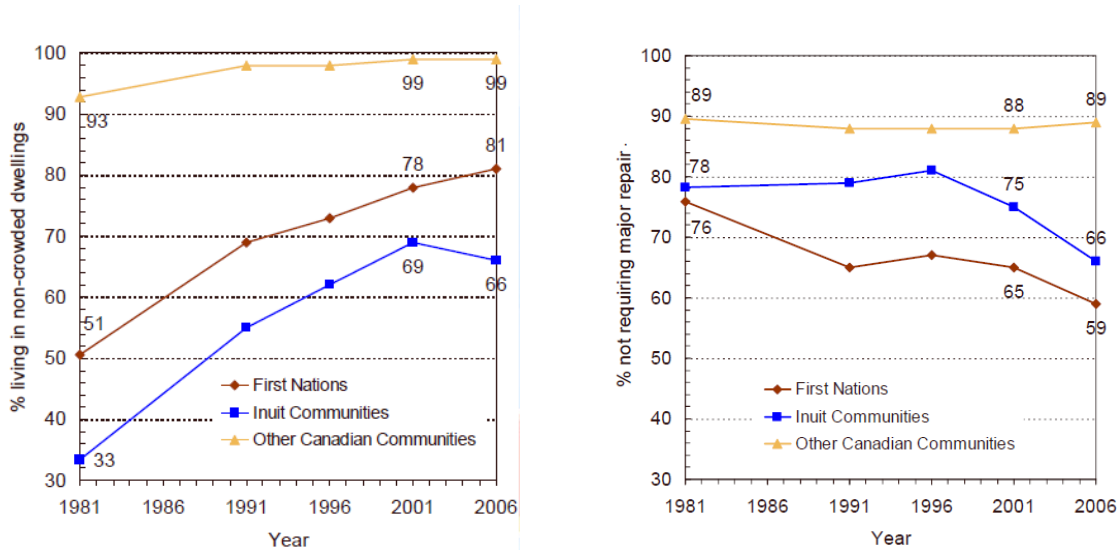


Source: Statistics Canada, Census of population, 2006, table 9 – Percentage of the Inuit and non-Aboriginal populations living in crowded dwellings, Canada and regions, 2006.

www12.statcan.gc.ca/census-recensement/2006/assa/97-558/table/t9-eng.cfm

Looking at trends over the last 3 decades for housing quantity and quality in Canada (figure 2 below), it must be noted that, while the housing situation of non-Aboriginal communities has been fairly stable, that of the Inuit communities has been deteriorating in quantity as well as in quality over time.

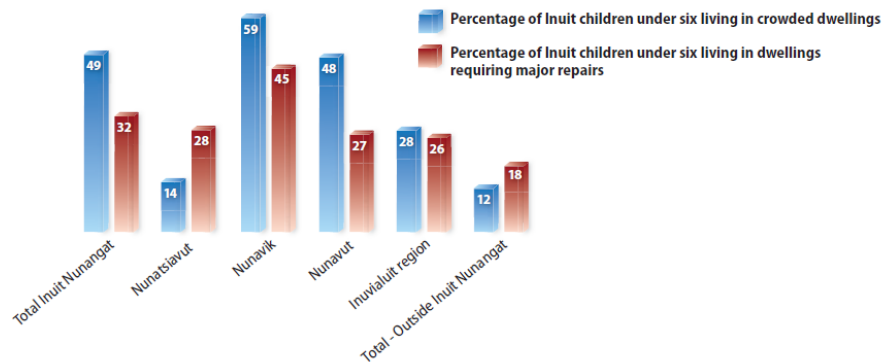
Figure 2: Housing situation in Canada, trends in time, 1981-2006



Source: Statistics Canada, 1981, 1991, 1996, 2001 and 2006 Census of Population.

Furthermore, and as will be discussed below, children are particularly vulnerable to substandard housing conditions. Considering that in Nunavik those under 15 years of age represent 40% of the population, it means that 60% of children are growing in an overcrowded home, the highest proportion in fact of the whole Inuit Nunangat.

Figure 3: Inuit children under six years old living in crowded dwellings and dwellings requiring major repairs, by percentage, 2006



Source: Statistics Canada. (2008c). Analytical paper – aboriginal Children’s survey, 2006: family, Community and Child Care. table 3.3, p. 43.

Last but not least, the housing crisis in Nunavik contributes to the high proportion of Inuit among Montréal’s homeless population. Indeed, while the Inuit represent 10% of the aboriginal population in Canada, 45% of Aboriginal homeless in the city of Montreal are Inuit. (Savoie, 2011). Many Inuit in Nunavik move to escape the severe housing shortage at home only to end up struggling for access to provincial services delivered in languages other than their own (Knotsch et al., 2011).

HEALTH consequences of inadequate housing

There is a growing body of evidence that housing circumstances affect the physical and mental health of families and individuals in all populations, aboriginal or not. In an extensive review of the literature published in 2004 by the Canada Mortgage and Housing Corporation, it can be found that researchers increasingly conclude that housing has a direct as well as an indirect impact on health (Canada Mortgage and Housing Corporation, 2004).

« Housing is not the only issue, but all issues relate to housing ».

*Andy Moorhouse,
President Kativik Municipal
Housing Bureau, 2008*

One of the best documented factor is indeed the correlation between cold, dampness and mould and respiratory ailments, particularly in children. The concept here is that increased humidity leads to increased mould growth and exposure, which could then lead to asthma and other respiratory conditions (Canada Mortgage and Housing Corporation, 2004).

Hence, household quality and density has well documented implications for the spread of infectious diseases, and this will be well described when we discuss the tuberculosis situation next. Overcrowding, however, can also have an impact on mental health, with the possible health outcomes including depression, sleep deprivation, and family problems (WHO 2010, Bailie, et al., 2006).

There also appears to be a negative association between crowded living conditions and healthy child development (Dunn, 2002), as well as educational outcomes (Canada Mortgage and Housing Corporation, 2004).

Women and children who need alternative housing arrangements because of family violence face further harm as a result of lack of adequate housing (Knotsch et al., 2011). As such, secure, adequate, affordable housing also affects the well-being of women in many ways, enhancing safety and security, providing the stable base from which they can upgrade their education and access jobs and other social support networks (Canada Mortgage and Housing Corporation, 2004).

In short, housing is closely linked to health. Elements of a healthy residential environment should include not only a separate housing unit for each family, but also a sufficient number of rooms and an interior volume in order to avoid overcrowding.

TUBERCULOSIS AND HOUSING CONDITIONS

Evidence from around the globe suggests that the determinants of TB are not purely biomedical. Rather, there is a growing base of evidence to substantiate the strong pathways between TB incidence and various social and economic determinants, including malnutrition, crowded housing and inadequate ventilation, low levels of sanitation, low socioeconomic status and poverty, alcohol and drug abuse, high levels of stress and poor health-care access (Baker M et al. 2008; Clark et al. 2002; Clark and Cameron 2009; Grzybowski and Allen; 1999).

Tuberculosis is a contagious disease that spreads through inhalation of microdroplets carrying *Mycobacterium tuberculosis*. A transmission factor essential to the disease is therefore to have been in contact with an individual with active, contagious TB. Hence, transmission of TB occurs most frequently as a result of prolonged contact in enclosed environments with an infectious person. Persons who are at the greatest risk of exposure to tuberculosis are those who live and sleep in the same household as an infected person.

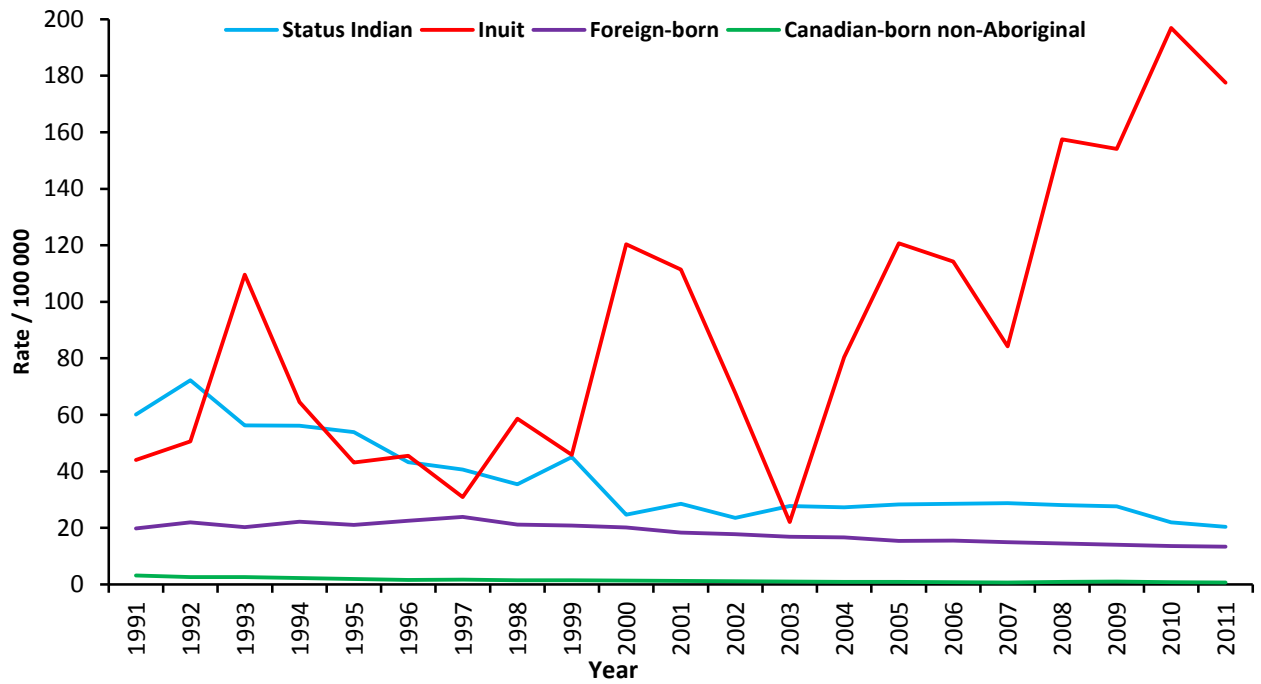
As such, crowded housing leads to an increased risk of exposure to *M.Tuberculosis*. Several researchers have identified a positive relationship between household crowding and prevalence of TB in indigenous (Clark et al. 2002) and non-indigenous communities (Baker et al. 2008; Wanyeki et al. 2006). A Canadian study published in 2002 found that an increase of 0.1 person per room (PPR) increased the risk of two or more cases of tuberculosis by 40% in a community. In addition, transmission of *M.Tuberculosis* to a non-infected person is more likely if there is poor ventilation. Beggs et al. report that the number of new TB infections among persons who share the same airspace is directly correlated to occupancy density, room volume and air change rate.

More recently, a case control study done in Nunavik using the data from the 2012 tuberculosis outbreak in a community, found that increasing adult occupancy was associated with risk of tuberculosis infection where an occupant had smear positive tuberculosis. (Ahmad Khan F et al. 2014)

TUBERCULOSIS IN NUNAVIK

Some Aboriginal populations continue to have an incidence of TB 10 to 20 times higher than the non-aboriginal Canadian-born population. There is however a wide variation in levels of disease and infection among aboriginal groups, and the Inuit population presents the highest incidence rate in the country (Figure below)

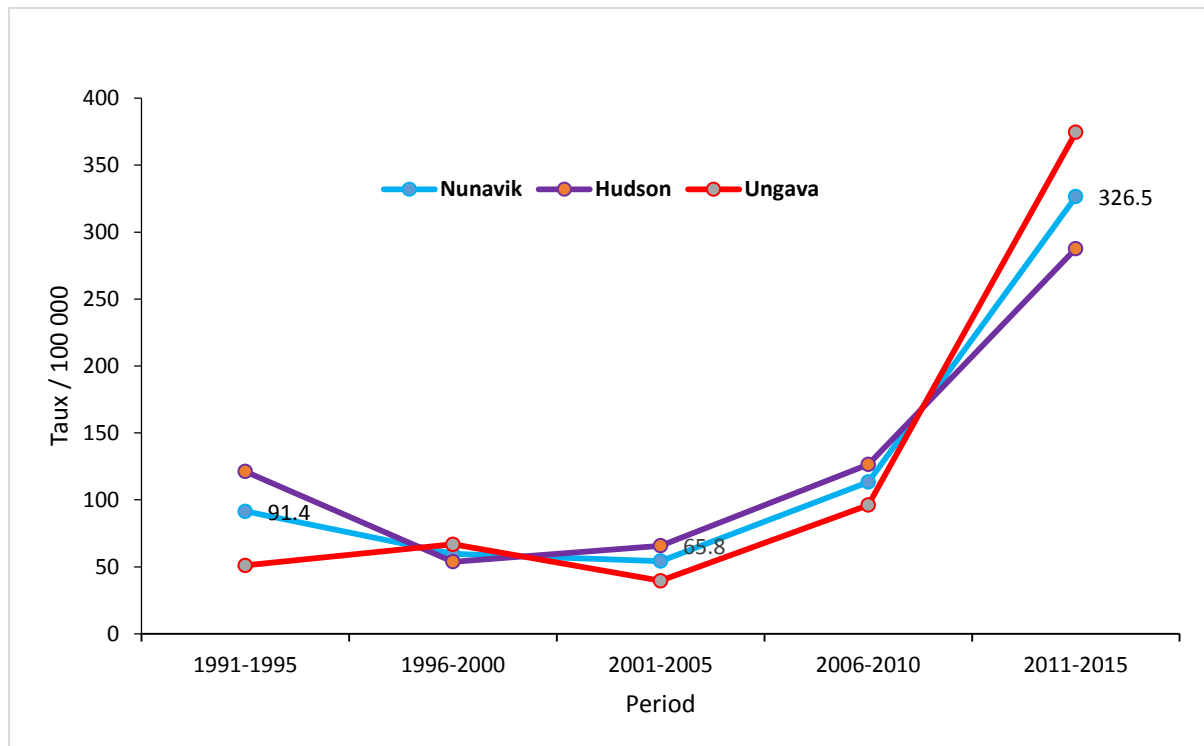
Figure 4: Incidence rate of tuberculosis by ethnic origin, Canada; 1991-2011



Sources: WHO; Registre des maladies à déclarations obligatoires; International Circumpolar Surveillance

In Nunavik, the incidence rate of active TB declined steadily from 91,4 (per 100,000) in 1991-1995 to nearly to 66 (per 100,000) in 2001-2005. Since 2006-2010, however, the incidence of active TB in the region has been rising steadily, reaching a rate of 326.5 (per 100,000) for the period 2011-2015. Young adults and young families with their children seem to be the most affected and vulnerable.

Figure 5: Incidence rate of tuberculosis, Nunavik and Coasts; period 1991-1995 to 2011-2015



Source: Registre des maladies à déclaration obligatoire (MADO). Data extracted in July 2016.

In populations that suffer high rates of tuberculosis such as Nunavik population, crowded housing and poor ventilation increase the risk of transmission and progression of disease. And this is why the Canadian Tuberculosis Committee issued an important report in 2007 titled “Housing Conditions that serve as a Risk Factor for Tuberculosis Infection and disease” where the authors make important recommendations regarding all populations (Aboriginal or not) living with inadequate housing in the country (see box below).

**Housing Conditions that serve as Risk Factors
for Tuberculosis Infection and Disease; An Advisory Committee Statement of
the Canadian Tuberculosis Committee**

Summary:

1. Compared with the Canadian-born non-Aboriginal population, some members of First Nations, Inuit and immigrant populations continue to show a substantially higher incidence of TB
2. In many regions of Canada, housing conditions in selected populations within these three groups do not meet the National Occupancy Standard of the CMHC and are characterized by high household occupancy density, poor air quality and inadequate ventilation.
3. In populations that already suffer high rates of TB, crowded housing and poor ventilation increase the risk of transmission and progression to disease among those who share living space.

Conclusion

Steps need to be taken to address the issue of inadequate housing for populations in Canada that have a high burden of TB disease (CCDR, 2007)

CONCLUSION

For over a century now public health in our country has targeted poor sanitation, overcrowding and inadequate ventilation to reduce infectious disease transmission. While today, most Canadians benefit from adequate housing and living conditions, and infectious diseases such as tuberculosis have almost disappeared, the housing situation for the Inuit of Nunavik remains critical.

Elimination of tuberculosis in Nunavik cannot be achieved without recognizing the importance of addressing key social determinants of tuberculosis, such as housing. Moreover, adequate housing is recognized as a “fundamental condition and resource for health” in the Ottawa Charter for Health Promotion. Inadequate/substandard housing and the health and social disintegration that accompanies it demand attention. As a public health issue, substandard housing in Nunavik needs to be confronted now.

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The Nunavik Regional Board of Health and Social Services

Created in 1995 by virtue of the *Act respecting health services and social services*, the Nunavik Regional Board of Health and Social Services' (NRBHSS) principal mandate is to organize health and social service programs in the region (14 villages of Nunavik), evaluate those programs' effectiveness and ensure the users receive services of good quality appropriate to their needs. Further, it ensures the organization and efficient use of financial resources granted to the Nunavik region.

The NRBHSS is an organization dedicated to improving the health and well-being of the populations of the 14 communities on its territory. Its overall mission is to adapt the health and social service programs to the population's needs and to the region's realities.

The NRBHSS manages a health and social services budget of almost \$167 million for the population of the 14 communities. Its head office is located in Kuujjuaq.

Nunavik's health and social services network includes the Nunavik Regional Board of Health and Social Services, the Inuulitsivik Health Centre (Hudson Bay) and the Ungava Tulattavik Health Centre (Ungava Bay). The signing of the James Bay and Northern Quebec Agreement (JBNQA) and supplementary agreements established guidelines for the development of health and social services in Nunavik. The organization of health care and social services is a provincial jurisdiction, but it is adapted to regional realities.

Given the size of its population and its cultural characteristics, Nunavik is unique in combining curative and preventive methods. In the fields of health and social services, promotion, prevention and protection activities can be carried out in a more harmonious and natural fashion.

The interveners and professionals of the Nunavik health and social service network face challenges at the health, cultural, social and financial levels. Human, physical and financial resources are constantly deployed to set up the infrastructures necessary to the well-being of Nunavimmiut.