

Rapid Response Service

Impact of Housing Status and Supportive Housing on the Health of Aboriginal People

OHTN

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What is the impact of housing status and/or different models of supportive housing on the health of Aboriginal people?

Key Take-Home Messages

- Aboriginal communities in Canada and Australia experience much higher rates of inadequate and vulnerable housing, which can include lack of working health hardware (i.e. working toilet, waste water disposal, ventilation), inadequate or unsafe structures, high proportion of income spent on housing and/or having to move residences frequently.
- Overcrowding is also regularly cited as a housing challenge for Aboriginal communities, particularly remote Inuit communities, but this must be considered with caution due to cultural assumptions about family make-up, personal space and the concept of 'household'.
- Inadequate housing has been linked to significant poor health outcomes for Aboriginal communities, particularly children.
 Indigenous children in Canada and Australia have distressingly high rates of respiratory infections, skin disease, parasites and nutritional disease; which have been directly linked to housing.
- Geographic distribution is also of concern as neighborhood characteristics have been linked to health outcomes and access to health and social services is very limited for many on-reserve and remote communities.
- While researchers support the need for supportive housing services for Aboriginal communities, no research was located that evaluated the outcomes of such services or the key components of supportive housing programs.

EVIDENCE INTO ACTION

The OHTN Rapid Response
Service offers HIV/AIDS programs
and services in Ontario quick
access to research evidence to
help inform decision making,
service delivery and advocacy.
In response to a question from
the field, the Rapid Response
Team reviews the scientific and
grey literature, consults with
experts, and prepares a brief fact
sheet summarizing the current
evidence and its implications for
policy and practice.

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The Issue and Why It's Important

Safe and stable housing has repeatedly been demonstrated to be a fundamental social determinant of health.(1) Housing may affect health in direct ways including the effect of the physical conditions of housing and indirect ways including the effects of associated social conditions on mental health and well-being. Housing stability and neighborhood characteristics also have an impact on access to services, both health and social. While these threats to health are common to other disadvantaged groups, the history of colonization and the relationship of Aboriginal communities to their land add to the significance of housing conditions as a determinant of health.(2)

Research initiatives such as the Positive Spaces. Healthy Places study (www.pshp.ca) housed at the Ontario HIV Treatment Network (OHTN) are beginning to provide insight into the housing needs of people living with HIV and the health and social consequences of those needs not being met. People with HIV who do not have stable housing or who move frequently have been found to have poorer health outcomes, higher rates of mental health and addiction issues and greater rates of incarceration and discrimination.(3) Aboriginal individuals, whether First Nations, Metis or Inuit, were vastly overrepresented in the group of participants that had experienced homelessness. Sixty-one percent of Aboriginal respondents had experienced homelessness, and of those over one-fifth had been homeless more than three times and one-third had more than five periods of homelessness.(4)

To provide context to findings such as these and to support future research in the area, the Rapid Response team was asked to review the literature for studies investigating the association between housing and health for Aboriginal communities more broadly and to identify the impact of supportive housing programs.

What We Found

This rapid review of the literature found several papers from Canada and Australia explicating the relationship between housing and the health of Aboriginal communities. The literature located is summarized below by jurisdiction and is followed by a brief review of the evidence about supportive housing programs for Aboriginal communities – very little of which exists.

Canada

There are alarmingly high rates of homelessness and unstable housing among Canadian Aboriginal communities and rates of inadequate housing for Inuit families in remote areas are particularly high.. A study of Inuit preschoolers in Nunavut showed that nearly 70% lived in public housing and 37% lived in a home in need of major repairs.(5) "An overarching public health problem area identified...involves the high degree of household crowding, homes in need of major repairs, public housing, and income support, all of which indicate chronic economic and social disadvantage with consequences for population health."(p. 7) (5)

Among other necessary repairs, many Inuit homes do not provide adequate ventilation leading to respiratory infections in children.(6-9) In one sample of Inuit children between three and 51 months, over half (55%) had had a lower respiratory tract infection.(10) Ventilation is of particular concern in cold

References

- Holton E, Gogosis E, Hwang S. Housing Vulnerability and Health: Canada's Hidden Emergency. Toronto, Canada: The Research Alliance for Canadian Homelessness, Housing and Health; 2010.
- Bailie RS, Wayte KJ. Housing and health in Indigenous communities: Key issues for housing and health improvement in remote Aboriginal and Torres Strait Islander communities. Australian Journal of Rural Health 2006;14(5):178-83.

climates where households have poor construction, improperly installed or nonfunctional heating mechanisms and high rates of indoor cigarette smoking. (7) One outcome of poor ventilation was identified in a study which recorded levels of fungi, bacteria and air particulates high enough to be detrimental to health in the on-reserve homes of Aboriginal infants.(11)

Another consideration that is used to identify inadequate housing is that of overcrowding. Overcrowding is defined differently in various jurisdictions and rarely acknowledges the ingrained cultural assumptions regarding the space an individual requires in a home. The standards do not allow flexibility for different cultural understandings of personal space and, in the words of one research team, tend to "discipline minorities into forming proper households, as defined by dominant cultural standards." (p. 525) (12) Particularly salient for this review is the impact of such standardized measures on Inuit communities who traditionally built homes that housed multiple or extended families, most of whom shared a single sleeping platform regardless of age or gender. According to the current Canadian standard of one person per room (excluding washrooms and closets), 31-40% of Arctic Inuit households are 'overcrowded', while Canada as a whole shows approximately 3-6% of households meeting this ranking.(12) Among on-reserve communities, double the rates of Hepatitis A were noted and attributed to overcrowding and water supply issues.(13) In urban settings, 17% of off-reserve Aboriginals and 53% of urban Inuit live in overcrowded conditions. (14) While useful as a guidepost to understand the housing stability of communities, the concept of overcrowding must be used with caution when discussing Aboriginal communities who may embrace a different understanding of family make-up and household structure.

An additional concern in urban areas is that Aboriginal youth are vastly overrepresented among homeless populations. A subset of Vancouver's At Risk Youth Study cohort found that almost a quarter of the young people who reported being homeless were Aboriginal.(15) In Calgary, 25% of a sample of homeless youth identified as Aboriginal and across the study, youth who were or had been homeless were three times more likely to have attempted suicide.(16) A different study citing the At Risk Youth cohort in Vancouver found that Aboriginal participants were two and half times more likely to be HIV positive, while reporting lower instances of injection drug use.(17) This lead the researchers to posit that high risk sexual activity and sex work may likely be to blame for the high rates of infection.(17)

The Royal Commission on Aboriginal Peoples cites that 84% of on-reserve Aboriginal households did not have sufficient income to cover housing.(18) As one researcher notes, "expenditures made on housing are expenditures not made on other health-enhancing goods. Research is needed to ascertain the health consequences of such household budget decisions, especially for low-income households with tight budgets."(p. S12)(19) This pressure frequently leads to reserve-to-urban migration, often resulting in homelessness. According to Farley, et al, this transition leaves young people in general, and young women in particular, vulnerable to sex work and other risks associated with street life. (18)

In addition to the state of housing structures, the availability of affordable housing and the members constituting a household, neighborhood characteristics are increasingly being identified as a factor affecting physical and mental health. Following a cohort of newborns in Saskatoon,

- 3. Tucker R, Rourke SB, Greene S,
 Sobota M, Koornstra J. Prolonged
 housing instability leads to poor
 health outcomes among people
 with HIV in Ontario. Positive Spaces
 Healthy Places 2010;Available
 from: URL: http://www.pshp.ca/
 documents/Home%20Page%
 20key%20messages/Housing%
 20is%20Good%20Healthcare%
 20poster%20for%20website.pdf
- Monette L, Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J et al. Housing status and health outcomes in Aboriginal people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study. Ottawa, Canada: Canadian Aboriginal AIDS Network; 2010.
- Egeland GM, Faraj N, Osborne G. Cultural, socioeconomic, and health indicators among Inuit preschoolers: Nunavut Inuit Child Health Survey, 2007-2008. Rural and Remote Health 2010;10 (2):1365.
- Berghout J, Miller JD, Mazerolle R, O'Neill L, Wakelin C, Mackinnon B et al. Indoor environmental quality in homes of asthmatic children on the Elsipogtog Reserve (NB), Canada. International Journal of Circumpolar Health 2005;64(1):77-85.
- Kovesi T, Creery D, Gilbert NL, Dales R, Fugler D, Thompson B et al. Indoor air quality risk factors for severe lower respiratory tract infections in Inuit infants in Baffin Region, Nunavut: A pilot study. Indoor Air 2006;16(4):266-75.
- Kovesi T, Zaloum C, Stocco C, Fugler D, Dales RE, Ni A et al. Heat recovery ventilators prevent respiratory disorders in Inuit children. Indoor Air 2009;19(6):489-99.
- Orr PH. Respiratory tract infections in Inuit children: "Set thine house in order". Canadian Medical Association Journal 2007;177(2):167-8.
- Kovesi T, Gilbert NL, Stocco C, Fugler D, Dales RE, Guay M et al. Indoor air quality and the risk of lower respiratory tract infections in young Canadian Inuit children. Canadian Medical Association Journal 2007;177(2):155-60.
- Wilson CE. Sudden infant death syndrome and Canadian Aboriginals: Bacteria and infections. FEMS Immunology & Medical Microbiology 1999;25(1-2):221-6.
- 12. Lauster N, Tester F. Culture as a problem in linking material inequality to health: On residential crowding in the Arctic. Health and Place 2010;16(3):523-30.

- Jin A, Martin JD. Hepatitis A among residents of first nations reserves in British Columbia, 1991-1996.
 Canadian Journal of Public Health 2003;94(3):176-9.
- Adelson N. The embodiment of inequity: Health disparities in Aboriginal Canada. Canadian Journal of Public Health 2005;96(SUPPL. 2):S45-S61.
- Rachlis BS, Wood E, Zhang R, Montaner JSG, Kerr T. High rates of homelessness among a cohort of street-involved youth. Health and Place 2009;15(1):10-7.
- Worthington CA, MacLaurin BJ. Level of street involvement and health and health services use of calgary street youth. Canadian Journal of Public Health 2009;100 (5):384-8.
- Marshall BDL, Kerr T, Livingstone C, Li K, Montaner JSG, Wood E. High prevalence of HIV infection among homeless and streetinvolved Aboriginal youth in a Canadian setting, Harm Reduction Journal 2008;5(35).
- Farley M, Lynne J, Cotton AJ. Prostitution in Vancouver: Violence and the colonization of first nations women. Transcultural Psychiatry 2005;42(2):242-71.
- Dunn JR, Hayes MV, Hulchanski JD, Hwang SW, Potvin L. Housing as a socio-economic determinant of health: Findings of a national needs, gaps and opportunities assessment. Canadian Journal of Public Health 2006;97(SUPPL. 3):S11-S15.
- Vu LT, Muhajarine N. Neighbourhood effects on hospitalization in early childhood. Canadian journal of public health Revue canadienne de sante publique 2010;101

 (2):119-23.
- Clark M, Riben P, Nowgesic E. The association of housing density, isolation and tuberculosis in Canadian First Nations communities. International Journal of Epidemiology 2002;31(5):940-5.
- Berman H, Mulcahy GA, Forchuk C, Edmunds KA, Haldenby A, Lopez R. Uprooted and displaced: A critical narrative study of homeless, Aboriginal, and newcomer girls in Canada. Issues in Mental Health Nursing 2009;30(7):418-30.
- Wearmouth H, Wielandt T. 'Reserve is no place for a wheelchair': Challenges to consider during wheelchair provision intended for use in First Nations community. Disability and Rehabilitation: Assistive Technology 2009;4(5):321-8.

Saskatchewan, one research team identified the socio-economic status of a neighborhood and the average household size in a neighborhood were significantly linked to the chance of hospitalization for young babies, above and beyond the family's own characteristics.(20) Among First Nations communities, lack of access to effective health services, coupled with overcrowding, has been identified as a contributing factor to the high rates of tuberculosis.(21) Tuberculosis incidence is higher in communities located in isolated areas and in communities with a higher average housing density.(21)

A qualitative investigation of experiences of displacement found that the Aboriginal young girls interviewed described uprooting as a pervasive theme in their lives. These frequent moves had profound effects on relationships with family, friends and school and created significant disconnection from family, culture and community.(22)

While much of the literature has focused on child health, attention also must be paid to adults who, due to illness, surgery or injury, require mobility assistance or other rehabilitation services. Many members of First Nations who are discharged from medical care using a wheelchair are making the difficult decision to reside off-reserve due to the lack of accessibility in on-reserve housing and lack of access to continuing health care. Those who do return to the reserve report significant challenges getting around and, in particular, accessing cultural ceremonies such as sweats. Even when an individual chooses to reside off-reserve, assessments and modifications to living spaces rarely occur or are delayed in their implementation.(23) Similar challenges have been documented among Aboriginals discharged from psychiatric services. Rehabilitation services including group homes, co-ops and independent living situations are not available on-reserve and people are being released from hospitals only to go to less private and more stressful situations.(24)

Whether discussing child health, adult mental health, the social connections of young Aboriginal girls or the rehabilitation of individuals with physical and mental impairments; housing is a fundamental consideration for community health among Aboriginal communities in Canada:

Given the magnitude of the health problems attributable to the housing conditions that many Aboriginal peoples in Canada endure and the contribution this likely makes to health disparities, it most certainly warrants a position of high priority in the research profile on housing as a socioeconomic determinant of health.(p.S13)(19)

Australia

Evidence of the housing inequity in remote Australian Aboriginal communities was identified in an extensive survey of 4,343 houses in 132 communities.(25) Only 11% of the houses surveyed passed the national standard for electrical safety and only 6% met the criteria for functioning nutritional hardware, which includes functioning stove and sink and adequate space for food storage and preparation.(25) An older scan, conducted in the mid-1990's, at the community level found that over a third of western Australian Aboriginal communities had significant problems with their water supplies, a third had significant problems with the disposal of sewage, just under half had problems with infestations, and 72% of the communities did not have an environmental health worker.(26)

In Australia, poor child health outcomes among remote Aboriginal communities have been linked to inadequate housing conditions.(2;27-30) Of particular concern are the high rates of respiratory, infection, parasitic diseases, diseases of the skin and nutritional diseases.(29-31) In the Northern Territory, Indigenous infants aged four weeks to one year are seven to eight times more likely to be hospitalized than non-Indigenous children of the same age.(29) Many of these health effects are attributed to hygiene issues (2;28) or damage to the essential health hardware of homes.(30;32) One study found that of the 47 houses surveyed that included a child under seven years old, 41 needed one or more major or urgent repair to an essential item such as toilet, place to store and prepare food or method to remove waste water.(30) These findings highlight the need for investment in housing infrastructure with robust essential health hardware (i.e., running water, functioning toilet) as well as accompanying community education about personal and domestic hygiene (28) to address these health disparities.

Even among Australian Aboriginal adults, higher than average hospitalization rates and higher rates of injury have been directly attributed to housing conditions.(27) Additionally, the cost of housing in Australia is prohibitive for many Aboriginal families, and the rents of even subsidized housing are more than Indigenous households can afford.(27)

Home ownership appears to offer buffering mechanisms and confers ontological security – a sense of security, control and mastery – which may have positive effects on physical and mental health.(2) Along with other socioeconomic variables, Indigenous Australians who owned their own home were less likely to develop diabetes.(33)

Supportive Housing

Although the links between housing and health are clear, little robust research has been conducted documenting the effects of supportive housing programs. Systematic reviews have been completed which link housing and health (34) and reports have documented that the health outcomes for people who are unstably housed are similar to those for individuals who are homeless (1); all of which call for investments in housing infrastructure and supportive housing services. Little detail is provided, however, on what such programs would look like. This Rapid Review did not identify any evaluations of supportive housing programs specific to Aboriginal communities.

Factors that May Impact Local Applicability

The papers included in this review are primarily applicable to further Canadian inquiries. As most of the research was conducted in Canada, it is relevant to the particular historical, colonial and contemporary issues affecting First Nations, Metis, off-reserve Aboriginal and Inuit communities. It is vital to note, however, the distinctions between these various communities of Indigenous Canadians. The other bulk of studies included here are from Australia. While helpful in providing context for the health impacts of inadequate housing, particularly to children, these must be viewed with full awareness of the distinct relationship between the Australian government and Australian Aboriginal and Torres Strait Islander communities.

- 24. Schmidt G. Barriers to recovery in a First Nations community. Canadian Journal of Community Mental Health 2000;19(2):75-87.
- 25. Torzillo PJ, Pholeros P, Rainow S, Barker G, Sowerbutts T, Short T et al. The state of health hardware in Aboriginal communities in rural and remote Australia. Australian and New Zealand Journal of Public Health 2008;32(1):7-11.
- Gracey M, Williams P, Houston S. Environmental health conditions in remote and rural aboriginal communities in western Australia. Australian and New Zealand Journal of Public Health 1997;21(5):511-8.
- 27. Neutze M. Housing for Indigenous Australians. Housing Studies 2000;15(4):485-504.
- 28. McDonald E, Bailie R, Grace J,
 Brewster D. A case study of physical and social barriers to hygiene
 and child growth in remote Australian Aboriginal communities. BMC
 Public Health 2009;9.
- 29. McDonald E, Bailie R. Hygiene improvement: Essential to improving child health in remote Aboriginal communities. Journal of Paediatrics and Child Health 2010;46 (9):491-6.
- 30. McDonald E, Bailie R, Grace J, Brewster D. An ecological approach to health promotion in remote Australian Aboriginal communities. Health promotion international 2010;25(1):42-53.
- 31. Bailie RS, Stevens MR, McDonald E, Halpin S, Brewster D, Robinson G et al. Skin infection, housing and social circumstances in children living in remote Indigenous communities: Testing conceptual and methodological approaches. BMC Public Health 2005;5:1-12.
- 32. Bailie RS, Runcie MJ. Household infrastructure in Aboriginal communities and the implications for health improvement. Medical Journal of Australia 2001;175(7):363-6
- 33. Cunningham J, O'Dea K, Dunbar T, Weeramanthri T, Shaw J, Zimmet P. Socioeconomic status and diabetes among urban Indigenous Australians aged 15-64 years in the DRUID study. Ethnicity and Health 2008;13(1):23-37.
- 34. Leaver DA, Bargh G, Dunn JR, Hwang SA. The effects of housing status on health-related outcomes in people living with HIV: A systematic review of the literature. AIDS Behavior 2007;11:S85-S100.

What We Did

We searched the Cochrane Library and the Database of Reviews of Effects (DARE) for systematic reviews using a combination of text search terms (hous* AND (Aboriginal OR Indigenous OR First Nations OR Metis or Inuit)). We also searched the 'housing/homelessness' category on Health-Evidence.ca for relevant systematic reviews. We also searched for primary literature in Medline and Embase using a combination of text and MeSH (Medical Subject Headings) terms (see below), CINHAL (used the same terms as the searches of Cochrane and DARE) and PAIS, IBSS and Sociological Abstracts (search terms: housing OR homeless [searched in 'Descriptors'] AND (Aboriginal OR Indigenous OR First Nations OR Metis or Inuit). None of the searches were limited by publication date or language.

Search terms used for Medline and Embase: (Housing [MeSH] OR Public Housing [MeSH] OR Homeless Youth [MeSH] OR Homeless Persons [MeSH] OR hous* [.tw]) AND (aboriginal [.tw] OR indigenous [.tw] OR first nations [.tw] OR metis [.tw] or inuit [.tw])