

**Critical Appraisal of Literature Linked to Health or Social Issue:**  
*Housing and Related Determinants of Health of Aboriginal Canadians*

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## *Introduction*

Aboriginals in Canada consist of people registered as “Indian” under the Indian Act (also referred to as “status or treaty Indians”), “non-status Indians”, the Métis, and the Inuit, which includes the people who reside in Nunavut, the Northwest Territories and northern Quebec.<sup>1</sup> In total Aboriginals make up about 4% of the Canadian population.<sup>2</sup>

The health of Canada’s Aboriginal people is poor, as compared to the Canadian population as a whole.<sup>3</sup> One factor which has been linked to poor health status in Aboriginals is housing or physical living conditions, including the determinants of health that are related to it such as clean water, food availability, income and inadequate waste disposal.<sup>4</sup> The houses of our Aboriginal people have twice as great a chance, over the houses of other Canadians, of needing major repairs. More individuals typically live in the homes of Aboriginals’, but these homes tend to be smaller in size. The homes of Aboriginals have a 90 times greater chance of being without piped water than the homes of other Canadians. Water and sewage systems are substandard as a general rule.<sup>4</sup> All of these outcomes resulting from poor physical living conditions mean poorer health status. Aboriginal Canadians have greater chances of developing mental illness, alcoholism, family violence, injuries, diabetes, tuberculosis, HIV infection, obesity, and hypertension.<sup>1</sup> In addition this population has higher levels of infant mortality, lower life expectancy, and higher rates of both suicide and homicide over the rest of the Canadian population as a whole.<sup>2</sup> Better housing for our Aboriginal people can therefore result in better overall health status for this

population. Policy change must drive this process if long-term results are desired and are to be sustained.

## *Critical Appraisal of Studies*

The framework for critical analysis used here is the one described by Ryan as the “rules of critical thinking”.<sup>5</sup> This framework was deemed appropriate given the high level nature of this appraisal, and the wide range of applicability of the framework to a number of situations and study design types. Therefore, for each study in turn, the framework will be applied and a brief table summarizing how the criteria for critical thinking fit with the study is included. Due to the nature of the determinants of health subject studied here, not all papers reviewed are research studies; they also include opinion pieces and policy research.

Beginning chronologically with the oldest study first we come to the paper by MacMillan et al investigating the health of Aboriginals.<sup>6</sup> This paper was a review of previous literature related to native health, excluding those related to genetics, history and those that followed a case study design. The paper categorizes the studies it reviewed into determinants of health and health outcomes. For each, it discusses the disparities between the Aboriginal population and the rest of the Canadian population. The paper is strong on criteria 1 and 3 through 5, but is lacking in the area of coherency. It does a poor job of connecting the health issues it reviews to produce an overall ‘big picture’ of the health status of Aboriginals and the implications that arise as a result.

*Table I – MacMillan et al paper critical thinking summary*

<b>Critical Thinking Criterion</b>	<b>Comments</b>
1. Consistency	Provides a clear message that isn't biased from one study reviewed to the next
2. Coherency	Falls short of connecting the health issues discussed to provide an overall picture of the state of Aboriginal health and the implications involved
3. Applicability	Each study was selected appropriately to fit within the confines of the review study goals
4. Adequacy	Although the authors could discuss each study in more depth, given the usual publication length limits, the paper does an sufficient job here
5. Communicability	The desired messages are clearly communicated

As with many papers that discuss the health of Aboriginals in Canada, the Newbold paper uses data from the Aboriginal Peoples Survey (APS) from 1991.<sup>2</sup> The sample size of this survey was 25,122 indicating that this is a rich data source. The study focused on three measures: self-assessed health status; physician and health professional use; and perceived community health problems and potential solutions. This paper is well rounded and achieves its stated objectives well.

*Table II – Newbold paper critical thinking summary*

<b>Critical Thinking Criterion</b>	<b>Comments</b>
1. Consistency	The author does a fine job of gaining agreement amongst the comparisons of the three indicators used for this study
2. Coherency	The three indicators are connected well to provide an overall vantage point and level of critical thought
3. Applicability	The applicability level is high, despite the age of the APS data set, as noted by the author
4. Adequacy	The author incorporates new knowledge and information into the study, linking it back to the analysis of the APS data set in terms of the three indicators
5. Communicability	The messages in the study are extremely clear and well-communicated

This health policy research paper tackles the determinants of health of Aboriginals from a very unique angle. Smye and Browne use examples from the Maori Aboriginals in New Zealand and extrapolate them to apply to the British Columbia context.<sup>7</sup> The authors are to be commended for their ability to synthesize thoughts, data and evidence into a coherent, thoughtful argument using the concept of ‘cultural safety’ to address the determinants of mental health within the Aboriginal population in BC.

*Table III – Smye and Browne paper critical thinking summary*

<b>Critical Thinking Criterion</b>	<b>Comments</b>
1. Consistency	The authors explain any contradictions and clearly state their objectives and baseline from the onset
2. Coherency	The synthesis of evidence from New Zealand with the BC context is seamlessly achieved
3. Applicability	The ideas in this paper are applied only to mental health, but with little imagination they can be extrapolated further to accommodate other health outcomes for Aboriginal populations
4. Adequacy	The model described allows for sufficient expansion and further development
5. Communicability	The concepts are very clearly communicated, especially considering the convoluted nature of the topic

The Reading and Nowgesic paper introduces and describes the Institute of Aboriginal Peoples’ Health (IAPH) of the Canadian Institutes of Health Research.<sup>8</sup> Though this paper is not research in and of itself, it does give a very good indication of the current issues facing Aboriginal health in Canada. The paper outlines the goals and core values as well as the research initiatives of the IAPH, and it describes in brief how some of these are to be accomplished. In short, this paper provides a good overview of the current status of the health determinants topic, rather than providing research results.

*Table IV – Reading and Nowgesic paper critical thinking summary*

<b>Critical Thinking Criterion</b>	<b>Comments</b>
1. Consistency	The authors provide clear goals and objectives for the IAPH
2. Coherency	There are few dimensions to connect in this paper; thus this criterion is effectively not applicable
3. Applicability	The IAPH model has been based on the experiences of Canadian Aboriginals
4. Adequacy	One aim of the IAPH is to allow for future ideas and experiences
5. Communicability	Clearly more communication of this endeavour is required if wide-spread support and involvement is desired

The most recent study reviewed (the Wilson and Rosenberg paper) also uses the data from the 1991 Aboriginal Peoples Survey (APS).<sup>9</sup> The fact that the APS dataset is being used more than a decade after its collection shows its long term and widespread applicability. Or alternatively it indicates the lack of available recent and large datasets of Aboriginal health status in Canada.

This study is the most comprehensive of all the ones reviewed. It conducts correlation calculations on a number of determinants of health variables including age, income, education, employment, utilization of health care, and place of residence. The main conclusion reached is that the health of Aboriginals in Canada is dependent on similar determinants as those for the rest of the Canadian population. The authors conclude from this that similar programs and policies that are used to improve the health of all Canadians should be effective at improving the health of Aboriginals as well – this is a conclusion with which I do not agree, since the cultural aspects of Aboriginal life are very different than that of the rest of Canadians. This links back directly to the Smye and Browne paper on ‘Cultural Safety’ reviewed earlier.

Table V – Wilson and Rosenberg paper critical thinking summary

<b>Critical Thinking Criterion</b>	<b>Comments</b>
1. Consistency	Some contradictions are apparent when critical thought of the reader is applied to this paper (e.g. conclusion reached as described in paragraph above)
2. Coherency	Many dimensions of critical thought are used to analyze the data in this study
3. Applicability	The authors do attempt to achieve applicability, but perhaps fall short as they in part conclude that Aboriginal health should be treated like that of all other Canadians
4. Adequacy	New experiences and data can be incorporated into the analysis
5. Communicability	The authors communicate their message well to the reading audience

## **Conclusions**

The articles reviewed herein do not complete the picture of the effects of housing and related determinants of health on the health outcomes of Canadian Aboriginals. In fact, since there is insufficient scholarly research available on the subject,<sup>2</sup> policy pieces, media coverage and government publications will be required to round out the analysis of information. These include, but are not limited to, results from the report of the Royal Commission on Aboriginal Peoples; federal policy, governance, and legislation; research on health outcomes of the Cree Aboriginals in the James Bay area; public health information; and coverage of the Davis Inlet housing ‘scandal’.

The five papers discussed above reach some interesting conclusions. Upon synthesis of these conclusions one realizes the many interdependencies of the determinants of health of Aboriginals. In the category of housing a number of determinants are involved, as already noted in the Introduction to this analysis.

## Endnotes

1. Tookenay, VF. Improving the health status of aboriginal people in Canada: new directions, new responsibilities. *CMAJ*, 1996 Dec 1; 155(11): 1581-83.
2. Newbold, KB. Problems in search of solutions: health and Canadian aboriginals. *J Comm Health*, Feb 1998; 23(1): 59-73.
3. Commission on the Future of Health Care in Canada. Final Report: Building on Values: The Future of Health Care in Canada. November 28, 2002.
4. Royal Commission on Aboriginal Peoples. Highlights from the Report of the Royal Commission on Aboriginal Peoples: People to People, Nation to Nation. 1996.
5. Ryan, L. What are the rules of critical thinking? CHS 730: The determinants of health of populations. Class notes from lesson 2: Critical thinking. 2003 Jan 16.
6. MacMillan, HL, et al. Aboriginal health. *CMAJ*, 1996 Dec 1; 155(11): 1569-78.
7. Smye, V, and Browne, AJ. 'Cultural Safety' and the analysis of health policy affecting aboriginal people. *Nurse res*, 2002; 9(3): 42-56.
8. Reading, J, and Nowgesic, E. Improving the health of future generations: the Canadian institutes of health research institute of aboriginal peoples' health. *Am J Pub Health*, Sep 2002; 92(9): 1396-1400.
9. Wilson, K, and Rosenberg, MW. Exploring the determinants of health for First Nations peoples in Canada: can existing frameworks accommodate traditional activities? *Soc Sci Med*, Dec 2002; 55(11): 2017-31.