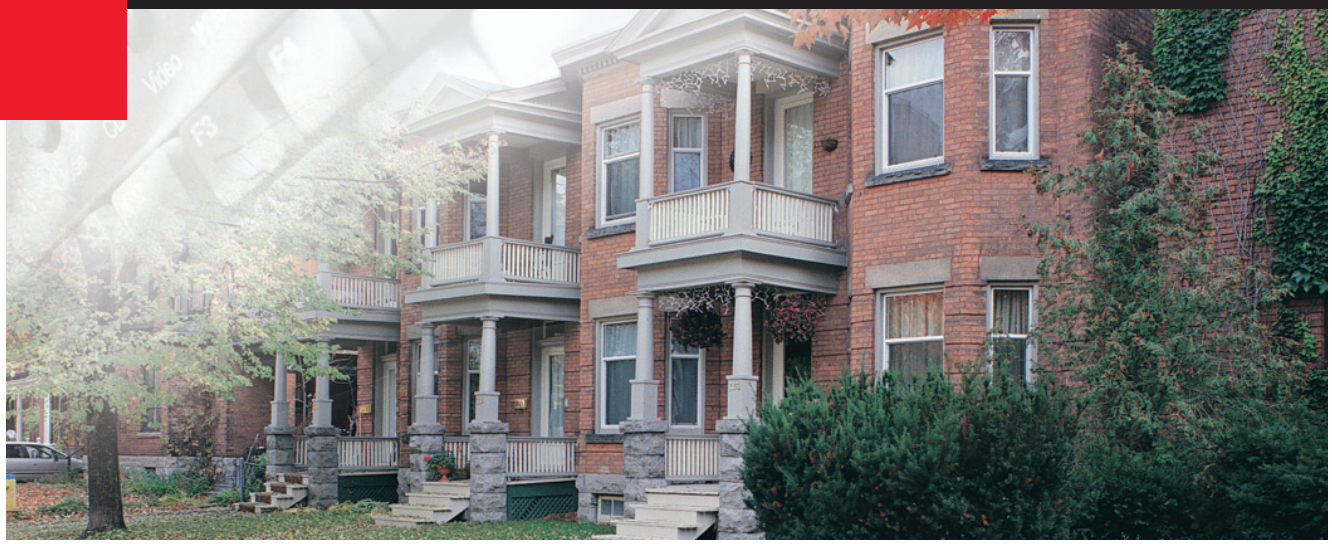
RESEARCH REPORT



Profile of Aboriginal Households in Canada Based on the 2001 Aboriginal Peoples Survey

Canada

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Profile of Aboriginal Households in Canada

Based on the 2001 Aboriginal Peoples Survey

Final Report

Revised May 10, 2012

Jeremy Hull
Prologica Research
Winnipeg, Manitoba

Disclaimer
This Project was funded by Canada Mortgage and Housing Corporation (CMHC), but the views expressed are the view of the author(s) and do not necessarily reflect the views of CMHC. CMHC's financial contribution to this report does not constitute an endorsement of its contents.

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Executive Summary

Purpose of the Report

Public policy concerns have been raised about Aboriginal housing and its relationship to other characteristics of individuals and households, in particular health and education. In order to address these issues Canada Mortgage and Housing Corporation (CMHC) has commissioned several related studies, including a literature review, a profile of Aboriginal households, and a study of the impacts of housing conditions on health and education. The present study is designed to meet the need for a profile of Aboriginal households and housing conditions in Canada. It provides a wide-ranging profile of Aboriginal housing and households, both on- and off-reserve. In addition, it explores the inter-relationships between housing characteristics, household characteristics and individual characteristics, such as health status and educational attainment. These findings are intended to help form the basis for more rigorous statistical analyses to be done in the future.

Key Findings

Crowding

- Based on the Aboriginal Peoples Survey, about one third of the Aboriginal population on reserves and 15% of the Aboriginal population off reserves were living in crowded conditions in 2001, as defined by the National Occupancy Standard.
- Those living in multiple family households were more likely to be crowded than others. More than two thirds of those in multiple family households on reserves and more than half of those in multiple family households off reserves were crowded.
- The Inuit population tended to experience especially high rates of crowding, compared to other Aboriginal populations living off reserves.
- Those on the waiting list for subsidized housing were more likely than other renters to be in crowded housing, both on and off reserves.

Major Repairs

- Nearly half of the population on reserves lived in housing that needed major repairs.
- About 15% of the Aboriginal population off reserves lived in dwellings needing major repairs.
- The Inuit population tended to experience higher rates of housing in need of major repairs compared to other Aboriginal populations living off reserves.
- Those on the waiting list for subsidized housing were more likely than other renters to be in housing that needed major repairs, both on and off reserves.
- Off reserves, those living in owner-occupied households were less likely than renters to be in housing that needed major repairs.

Affordability (Off Reserves only)

- 25% of the population off reserves were in households that fell below the affordability standard (shelter costs ≥ 30% or more of household income).
- 38% of those living in lone parent households and 43% of non-family households did not meet the affordability standard.

Core Housing Need (Off Reserves only)

- A larger proportion of renters (31%) than owners (12%) were in core housing need.
- Among renters, those in households that were on a waiting list for subsidization had a higher percentage (49%) living in core housing need compared to those in subsidized housing (41%).
- 25% of unsubsidized renters were in living in core housing need.

Résumé

Objectif du rapport

Des questions de politique publique ont été soulevées au sujet du logement des Autochtones et de ses liens avec d'autres caractéristiques des individus et des ménages autochtones, en particulier la santé et l'éducation. Pour étudier ces questions, la Société canadienne d'hypothèques et de logement (SCHL) a commandé un examen de la littérature, un profil des ménages autochtones, et une étude des impacts des conditions de logement sur la santé et l'éducation. Le présent rapport renferme un profil des ménages autochtones et de leurs conditions de logement au Canada. Ce vaste profil porte à la fois sur la situation dans les réserves et hors des réserves. Il explorera également les liens entre les caractéristiques des logements et celles des ménages et des individus, comme l'état de santé et le niveau de scolarité. Ces données serviront de base à de futures analyses multivariées.

Résumé des résultats

Surpeuplement

- Selon l'Enquête auprès des peuples autochtones, environ un tiers de la population autochtone vivant dans les réserves et 15 % de la population autochtone vivant hors des réserves habitaient un logement surpeuplé en 2001, au sens des définitions figurant dans la Norme nationale d'occupation (NNO).
- Les membres de ménages multifamiliaux étaient plus susceptibles de vivre dans un logement surpeuplé que les autres. Plus des deux tiers des membres de ménages multifamiliaux vivant dans les réserves et plus de la moitié des membres de ménages multifamiliaux vivant hors des réserves habitaient un logement surpeuplé.
- Le taux de surpeuplement parmi la population inuite tendait à être particulièrement élevé, comparativement aux autres populations autochtones vivant hors des réserves.
- Les personnes en attente d'un logement subventionné étaient plus susceptibles que les autres locataires d'habiter un logement surpeuplé, à la fois dans les réserves et hors des réserves.

Réparations majeures

- Près de la moitié de la population dans les réserves occupait un logement nécessitant des réparations majeures.
- Environ 15 % de la population autochtone vivant hors des réserves occupait un logement nécessitant des réparations majeures.
- Le taux de logements nécessitant des réparations majeures tendait à être plus élevé parmi la population inuite, comparativement aux autres populations autochtones vivant hors des réserves.
- Les personnes en attente d'un logement subventionné étaient plus susceptibles que les autres locataires d'occuper un logement nécessitant des réparations majeures, à la fois dans les réserves et hors des réserves.

- Hors des réserves, les membres de ménages propriétaires de leur logement étaient moins susceptibles que les locataires d'habiter un logement nécessitant des réparations majeures.

Abordabilité (hors des réserves seulement)

- 25 % de la population hors des réserves faisait partie de ménages vivant dans un logement non conforme à la norme d'abordabilité (frais de logement de 30 % ou plus du revenu du ménage).
- 38 % des membres de ménages monoparentaux et 43 % des ménages non familiaux vivaient dans un logement non conforme à la norme d'abordabilité.

Besoins impérieux en matière de logement (hors des réserves seulement)

- Une proportion plus large de locataires (31 %) que de propriétaires (12 %) éprouvaient des besoins impérieux en matière de logement.
- Parmi les locataires, les membres de ménages en attente d'un logement subventionné étaient plus susceptibles (49 %) d'éprouver des besoins impérieux en matière de logement que ceux vivant dans un logement subventionné (41 %).
- Parmi les locataires ne vivant pas dans un logement subventionné, 25 % avaient des besoins impérieux en matière de logement.

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Introduction

This study makes use of several measures of housing need that have been established by CMHC, including the concepts of adequacy, suitability, affordability and core housing need. These concepts are briefly defined below.

CMHC Need Criteria & Core Need

Adequacy Standard (Need for Major Repairs)
- Housing does not require any major repairs as assessed by resident based on a standard guide.

Suitability Standard (Crowding)
- Housing has enough bedrooms for the size and make-up of the household based on National Occupancy Standard.

Affordability Standard
- Housing costs less than 30% of before-tax household income.

Core Need
- Falls below one or more of the above three standards, and
- Would have to spend 30% or more of household income to obtain acceptable housing in the local market.

The 2001 Aboriginal Peoples Survey (APS) and the 2001 Census

The primary source of data for this report is the 2001 Aboriginal Peoples Survey. The APS adult questionnaire was administered to a sample of Aboriginal people living both on reserves and off reserves. It is a 26 page questionnaire that includes the following sections:

A. Education
B. Language
C. Labour
D. Income
E. Health
F. Communication Technology
G. Mobility
H. Housing

While most of these topics are also covered in the Census, the APS questionnaire provides additional information and greater detail. For example, The Housing section supplements the Census by asking about such things as housing services, water safety,

modifications made to meet special needs, smoke detectors, and insurance. The Mobility section covers reasons for moving, number of moves over five years and temporary absences from home. The Education section asks in detail about the types of qualifications completed, whether there was aboriginal content in the schools attended, and whether the schools attended were within the community. The Health section includes questions on general health, specific health conditions, and activity limitations.

Because the 2001 APS is a post-censal survey a variety of census variables can be attached to the respondents' records in the APS. Thus, the combined APS/Census data base provides a rich source of data that includes information captured in the Census, such as income, employment and housing characteristics, with data captured in the APS, such as more detailed educational, employment, health and housing data.

The APS is primarily a person-based survey, as opposed to a household-based survey. Throughout this report, counts and percentages are based on the numbers of individuals who responded to the APS, even when household or housing characteristics are being described. For example, the number and percentages of ***individuals*** living in crowded households are reported, not the number or percentage of crowded ***households***. For this reason, the findings of this report are not comparable to household data from the Census of Canada.

The APS is a sample survey and not a census. As such, the sample size can affect the depth of analysis permitted before data counts become too small to be analyzed, either due to confidentiality restrictions or the reliability of the resulting low counts which become statistically unsafe to use. A total of 98,649 respondents were interviewed in this survey. The figures used for this report are weighted to adjust for non-response and other minor methodological issues. Weighting is also used to ensure that communities and Aboriginal groups are represented in the same proportion as in the 2001 Census.

The 2001 APS sampled 123 reserves and 96 other communities with large numbers of Aboriginal people:

- 123 First Nations reserves
- 53 Inuit communities in the Arctic
- 38 communities with 40% or more Aboriginal inhabitants (with 250+ people)
- 5 additional communities: Prince Albert, North Battleford, Wood Buffalo, Yellowknife and Whitehorse

A stratified random sample of other communities in Canada was also included in the survey.

The 2001 APS data for the on-reserve population are limited in that only the larger reserves throughout Canada were selected for the survey sample. This had a substantial impact on the sampling in British Columbia where there are many small reserves. In addition, there was limited participation in the survey from Quebec First Nations. This means that on-reserve statistics produced from the APS are representative of the 123 larger reserves that participated in APS, and cannot be considered representative of the total on-reserve population.

A follow-up study comparing the APS on-reserve sample to the Census on-reserve data found that the differences in distributions were very small, at least for selected demographic and socio-economic characteristics such as gender and age distributions, schooling levels, and housing. However, the follow-up study did not look at all APS characteristics, so on-reserve findings should be treated with caution.

Data Used in this Study

This study is based on 146 custom data tables designed by Canada Mortgage and Housing Corporation and produced in the summer and fall of 2008 and the summer of 2009. The tables use both APS and Census data, which are linked, but the primary focus is on APS data. Decisions concerning table specifications evolved over time, beginning with the production of data for the population living on reserves in 2008, and then with the production of data for the off-reserve Aboriginal population. The production of tables was ultimately discontinued even though some planned tables had not been produced. Although the study has generally tried to provide parallel findings for the on-reserve and off-reserve populations, such comparisons have not always been possible because of the lack of corresponding data between the two geographies. This is noted in the report where it arises.

Report Contents

This report presents the findings in six sections. Section 1 is concerned with key household characteristics that underlie other aspects of the profile and are frequently used in cross-tabulations or that are considered possible housing outcome variables. These include the age and gender of respondents, housing tenure (whether the dwelling is owner-occupied or rented), household type, housing condition, crowding, affordability and overall housing need indicators. The second section focuses on some of the attributes of the housing and its services and equipment, including water availability, heating equipment, smoke and carbon monoxide detectors, insurance, modifications to accommodate disabilities, and the age of the housing.

Section 3 focuses on household size and income, leading to a description of per capita income and how this is related to other household characteristics. Section 4 looks at aspects of health, including general health status, self-reported health conditions, and activity limitations. These health characteristics are described in relation to other household characteristics. Similarly, section 5 looks at educational characteristics, such as highest level of schooling and student status, in relation to other household characteristics. Last, Section 6 provides a profile of the mobility characteristics of households, again in relation to housing need indicators.

Throughout the profile various comparisons and cross-tabulations are presented. The selection of cross-tabulations and figures was based on those that seem to reflect the strongest inter-relationships between variables. Wherever possible on and off-reserve characteristics have been presented and compared, since there are substantial

differences between Aboriginal households living on reserves and those living off reserves. (For the purposes of this study, an Aboriginal household is any household that an Aboriginal person is part of.) Comparisons have also been made between Aboriginal identity groups living off reserve where these show marked differences between groups.

1. Key Household Characteristics

This section of the profile will present some basic descriptive information concerning the Aboriginal population and households, both on reserves and off reserves. The topics will include the age and gender of respondents to the APS, Aboriginal identity group, household type (that is, the type of family or non-family household), tenure (whether the dwelling is owner-occupied or rented), whether the housing is subsidized, and the various need factors (condition of housing, crowding, affordability). Where possible, information on these topics will be provided for both the on- and off-reserve Aboriginal populations. Selected cross-tabulations of these variables are also provided. Readers should keep in mind that all data are based on individual responses, even when referring to household characteristics, as discussed in the introduction. Also, as noted in the introduction, in this section and throughout the study, data for the on-reserve population are based on larger reserves only, and do not include most reserves in Quebec.

1.1 Age and Gender

The 2001 Aboriginal Peoples Survey resulted in population estimates of about 72,000 respondents living on reserves surveyed by the APS and about 551,000 respondents off reserves, a total of about 623,000. (See Table 1.) The on-reserve population had larger proportions in the youth age group (15-24 years old) and smaller proportions in the middle age group (35-54 years old). The numbers of men and women in the population on reserves were about equal, but there were more women than men in the population living off reserves.

Both on reserves and off, respondents from multiple family households were younger than respondents from other types of households, and respondents from non-family households were older. (See Figures 1 and 2.) Non-family households on reserves had an especially old age composition, with almost one third of the respondents over the age of 55. This may reflect those living in seniors residences on reserves.

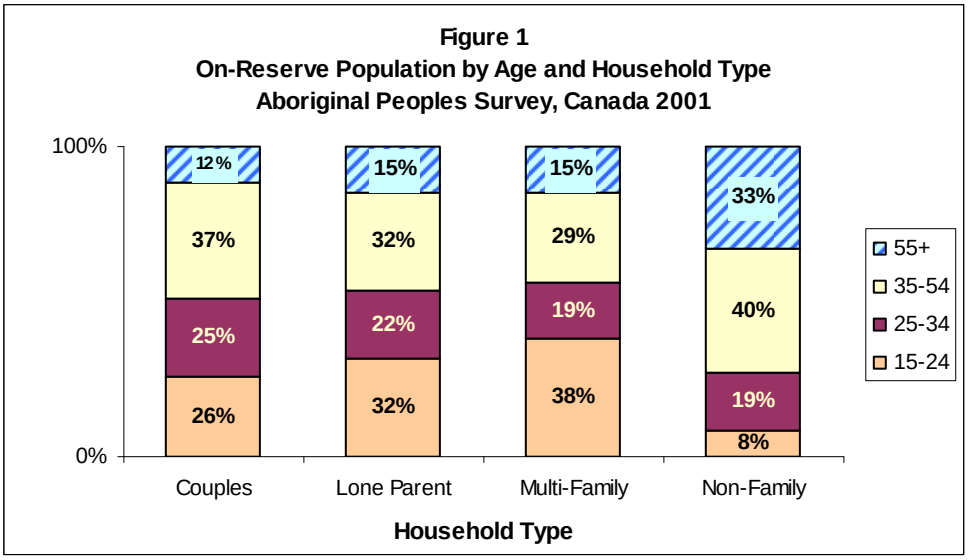


Figure 1
On-Reserve Population by Age and Household Type
Aboriginal Peoples Survey, Canada 2001
100%
0%
12%
37%
25%
26%
15%
32%
22%
32%
15%
29%
19%
38%
33%
40%
19%
8%
Couples
Lone Parent
Multi-Family
Non-Family
Household Type
55+
35-54
25-34
15-24

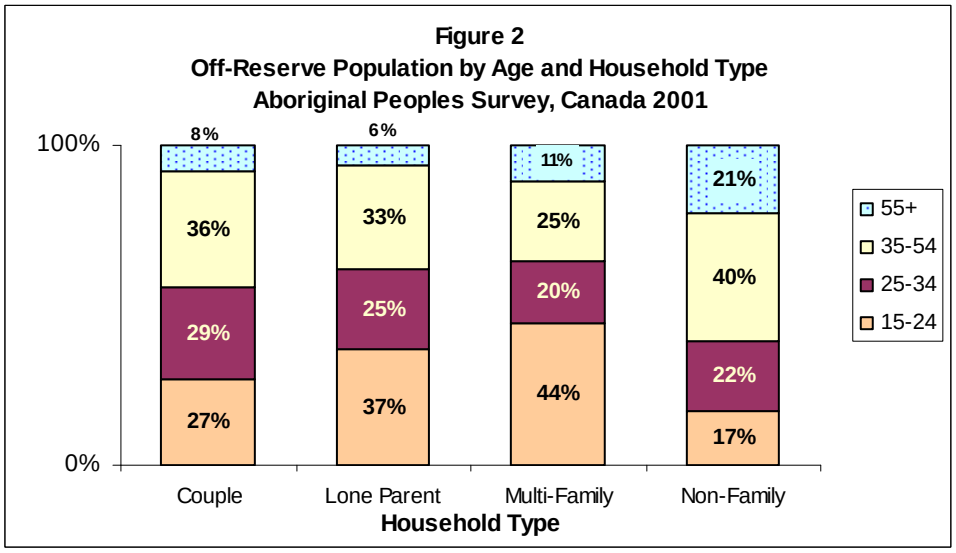


Figure 2
Off-Reserve Population by Age and Household Type
Aboriginal Peoples Survey, Canada 2001
100%
0%
8%
36%
29%
27%
6%
33%
25%
37%
11%
25%
20%
44%
21%
40%
22%
17%
Couple
Lone Parent
Multi-Family
Non-Family
Household Type
55+
35-54
25-34
15-24

Table 1
Aboriginal Population by Age, Gender and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

Location and Age	Population Estimate			Percentage Distribution		
	Male	Female	Total	Male	Female	Total
On Reserve						
15-24	10,080	10,050	20,130	14.0%	14.0%	28.1%
25-34	7,880	8,450	16,330	11.0%	11.8%	22.8%
35-54	12,780	12,160	24,940	17.8%	16.9%	34.8%
55+	4,950	5,420	10,360	6.9%	7.6%	14.4%
Total*	**35,770**	**36,130**	**71,900**	**49.7%**	**50.3%**	**100.0%**
Off Reserve						
15-24	67,400	70,310	137,710	12.2%	12.8%	25.0%
25-34	53,910	66,660	120,570	9.8%	12.1%	21.9%
35-54	100,930	118,220	219,150	18.3%	21.5%	39.8%
55+	34,020	39,250	73,270	6.2%	7.1%	13.3%
Total*	**256,520**	**294,640**	**551,160**	**46.5%**	**53.5%**	**100.0%**
Total						
15-24	77,480	80,360	157,840	12.4%	12.9%	25.4%
25-34	61,790	75,110	136,900	9.9%	12.1%	22.0%
35-54	113,710	130,380	244,090	18.3%	20.9%	39.2%
55+	38,970	44,670	83,630	6.3%	7.2%	13.4%
Total*	**292,290**	**330,770**	**623,060**	**46.9%**	**53.1%**	**100.0%**

* Totals include small numbers of unknown age, not shown.

1.2 Aboriginal Identity

The 2001 APS asked several questions concerning Aboriginal ancestry, identity and legal status. Based on these answers, the Aboriginal identity of individuals was reported under four categories: Registered or Status Indians (those who are registered under the *Indian Act*); Non-status Indians (others who identified themselves as North American Indian), Métis, and Inuit. A small percentage of individuals identified themselves within more than one of these categories. As can be seen from Table 2, almost all (98%) of those who responded to the APS survey on reserves were Registered or Status Indians. Off reserves, Registered Indians made up 39% of the respondents while 23% were Non-status Indians, 36% were Métis, and 5% were Inuit. (These percentages add to more than 100% because of those who have more than one identity.)

Table 2
Population by Age, Gender, Aboriginal Identity and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

Location and Age	Registered Indian	Non-Status Indian	Métis	Inuit	Total
On Reserve					
15-24	19,620	***	***	***	20,130
25-34	15,950	***	***	***	16,330
35-54	24,350	***	***	***	24,940
55+	10,200	***	***	***	10,360
Age Unknown	140	***	***	***	140
Total	**70,260**	**1,040**	**650**	*******	**71,900**
Percent	97.7%	1.4%	0.9%	***	100.0%
Off Reserve					
15-24	54,170	27,620	50,860	7,460	137,710
25-34	48,560	27,830	40,180	6,270	120,570
35-54	83,170	54,860	78,610	8,410	219,150
55+	30,550	15,030	27,260	3,040	73,270
Age Unknown	230	120	100	20	460
Total	**216,680**	**125,460**	**197,010**	**25,200**	**551,160**
Percent	39.3%	22.8%	35.7%	4.6%	100.0%

*** Data suppressed because of small counts.

There were differences in the age distributions on and off reserves and between Aboriginal identity groups off reserves. (See Table 3.) The on-reserve total Aboriginal population was younger, with a relative high percentage in the 15-24 age group, while the off-reserve Aboriginal population had a relatively high proportion in the 35-54 age group. Off reserves, the age structures of the Registered and Métis populations were similar, while the Non-status Indian population tended to be older, and the Inuit population tended to be younger than the other identity groups.

Table 3
Population by Age, On/Off Reserve Residency and Aboriginal Identity
Aboriginal Peoples Survey, Canada 2001

Location and Age	Registered Indian	Non-Status Indian	Métis	Inuit	Total
On Reserve					
15-24	28.0%	***	***	***	28.1%
25-34	22.7%	***	***	***	22.8%
35-54	34.7%	***	***	***	34.8%
55+	14.5%	***	***	***	14.4%
Total*	**100.0%**	**100.0%**	**100.0%**	***	**100.0%**
Off Reserve					
15-24	25.0%	22.0%	25.8%	29.6%	25.0%
25-34	22.4%	22.2%	20.4%	24.9%	21.9%
35-54	38.4%	43.8%	39.9%	33.4%	39.8%
55+	14.1%	12.0%	13.8%	12.1%	13.3%
Total*	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

* Not including those with unknown ages.
*** Data suppressed because of small numbers.

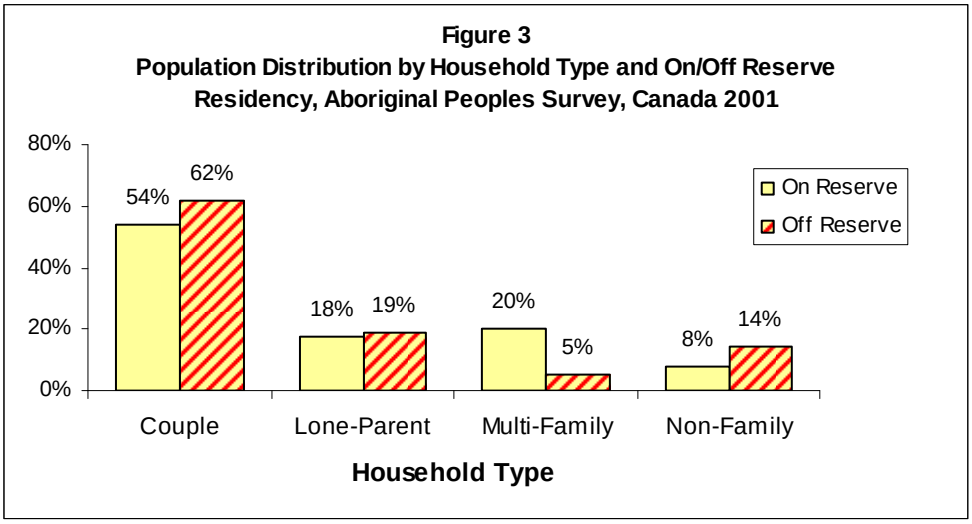
1.3 Household Type

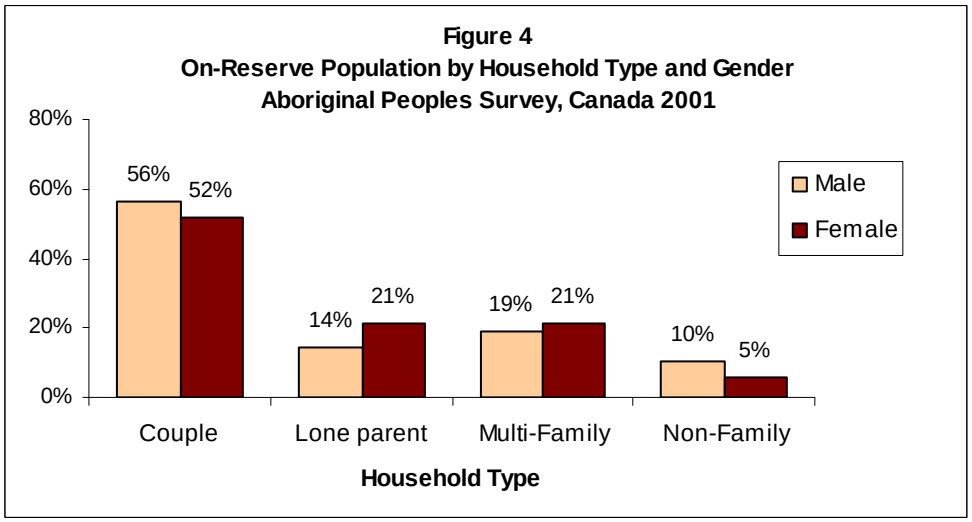
Table 4 shows the distribution of APS respondents by household type and gender. A majority of those living both on reserves and off reserves were members of couple households, although the proportion in couple households was larger off reserves (61%) than on reserves (54%). The proportions living in lone parent households were similar on and off reserves. However, the proportion living in multiple family households was much higher on reserves (20%) than off reserves (5%), and conversely the proportion living in non-family households was higher off reserves (14%) than on reserves (8%).

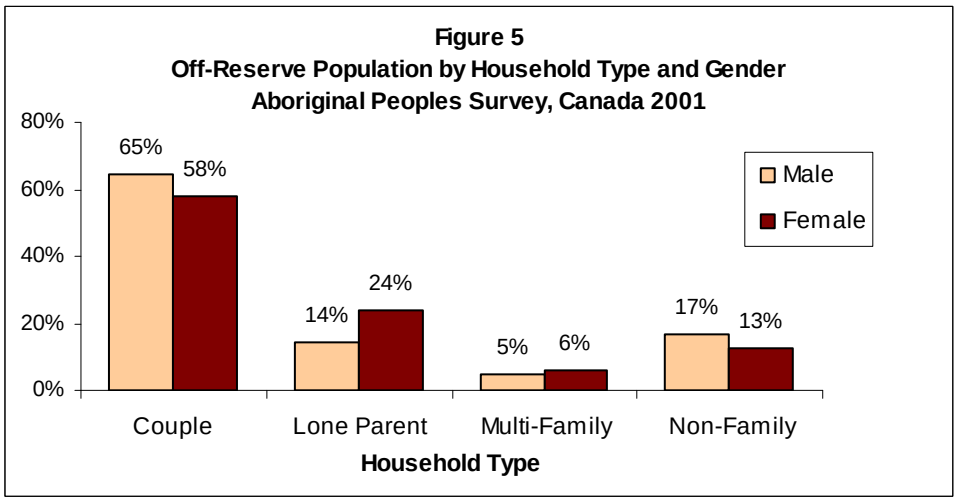
Both on and off reserves, women were more frequently in lone parent and multiple family households than were men, while men were more often in couple and non-family households. The result was that a large proportion of lone parent households were headed by women (assuming that the APS respondents were the parents in the family), both on reserves (60% female) and off reserves (65% female). This finding is at odds with the findings from the Census which yields a much higher ratio of female/male lone parents. It should be kept in mind that the individual responding to the APS may have been an adult child in the family rather than the lone parent and that this may have affected the female/male ratio of respondents from lone parent households.

Table 4
Population by On/Off Reserve Residency, Gender and Household Type
Aboriginal Peoples Survey, Canada 2001

Residency & Gender	Household Type				Total
	Couple	Lone Parent	Multi-family	Non-family	
			Number of Respondents		
On Reserve					
Male	20,150	5,130	6,740	3,690	35,710
Female	18,770	7,660	7,630	1,980	36,050
Total	38,920	12,790	14,380	5,670	71,760
Off Reserve					
Male	165,610	36,720	11,780	42,410	256,520
Female	170,600	69,850	17,090	37,110	294,640
Total	336,200	106,570	28,880	79,510	551,160
			Distribution by Household Type		
On Reserve					
Male	56.4%	14.4%	18.9%	10.3%	**100.0%**
Female	52.1%	21.2%	21.2%	5.5%	**100.0%**
Total	54.2%	17.8%	20.0%	7.9%	**100.0%**
Off Reserve					
Male	64.6%	14.3%	4.6%	16.5%	**100.0%**
Female	57.9%	23.7%	5.8%	12.6%	**100.0%**
Total	61.0%	19.3%	5.2%	14.4%	**100.0%**
			Distribution by Gender		
On Reserve					
Male	51.8%	40.1%	46.9%	65.1%	49.8%
Female	48.2%	59.9%	53.1%	34.9%	50.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Off Reserve					
Male	49.3%	34.5%	40.8%	53.3%	46.5%
Female	50.7%	65.5%	59.2%	46.7%	53.5%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**







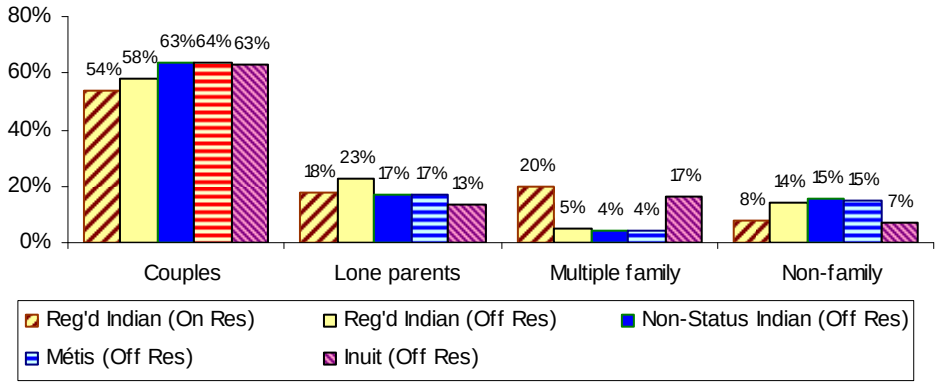
There were differences among Aboriginal groups in the distribution of respondents by household type. Among Registered Indian respondents living on reserves, the majority

were in couple households (54%), but there were also substantial numbers living in lone parent (18%) and multiple family (20%) households. (See Figure 6 – because of small numbers other identity groups on reserves are not shown.)

Among Registered Indian respondents living off reserves, again the majority were in couple households (58%) and a substantial proportion were in lone parent families (23%), but the proportion living in multiple family households (5%) was much smaller than on reserves. On the other hand, a relatively large proportion (14%) of Registered Indian respondents living off reserves were in non-family households.

The Non-Status Indian and Métis populations living off reserves were very similar to each other and also tended to be similar to the Registered Indian population off reserves, in terms of household types. About 63% to 64% of respondents within these two groups were living in couple households, while 17% of each group were living in lone parent households and 15% were in non-family households. Among the Inuit population living off reserve the largest proportion (63%) were living in couple households, but the unlike others living off reserves, a relatively large proportion of the Inuit population (17%) were living in multiple family households.

Figure 6
Population Distribution by On/Off Reserve Residency, Identity and Household Type, Aboriginal Peoples Survey, Canada, 2001



1.4 Tenure & Subsidization

The 2001 APS included several questions about housing tenure, including whether the dwelling was owned or rented by its occupants, whether the rent was subsidized, and if not, whether the household was on a waiting list to receive subsidized social housing. Based on these responses, 68% of those living on reserves and 54% of those living off reserves said they owned their homes. (See Table 5.) It should be kept in mind that a substantial portion of housing on reserves is owned by the First Nation or band. Residents of band-owned housing may have limited ownership rights, such as a "certificate of possession," and may view the dwelling as being owned by them, while

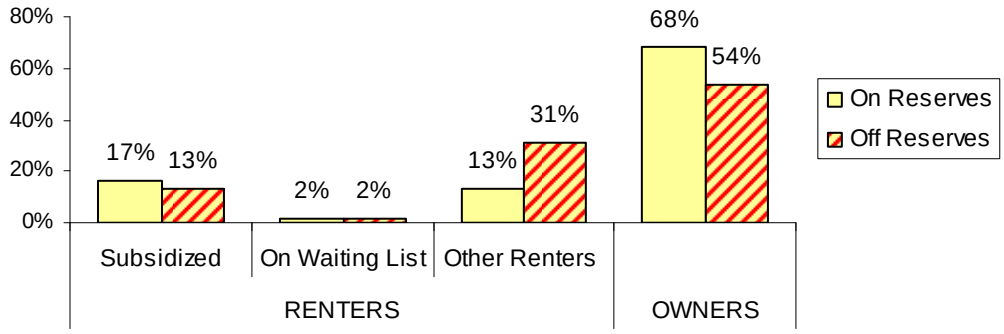
still not holding title to the home. Data from the 2001 Census provided in Clatworthy (2008) shows that 55% of households on reserves lived in band-owned housing, 30% lived in self-owned housing and 15% lived in rented housing. This difference could indicate that homeowners were over-represented in the APS sample, or it could be that those who identified their housing as "owned" in the 2001 APS included many who were living in band-owned housing.

17% of those living on reserves and 13% of those living off reserves were in subsidized housing. About 2% were on a waiting list for subsidized housing both on and off reserves. On the other hand, the proportion renting and not on a waiting list for subsidized housing was much higher among Aboriginal residents off reserves (31%) than on reserves (13%).

Table 5
Tenure and Subsidization of Households by On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

Tenure and Subsidization	On Reserves		Off Reserves	
	Number	Percent	Number	Percent
Renters	**20,260**	**31.8%**	**234,570**	**46.3%**
Subsidized	10,550	16.6%	66,660	13.2%
On wait list	1,220	1.9%	9,090	1.8%
Not on wait list	8,450	13.3%	158,820	31.3%
Owners	**43,430**	**68.2%**	**272,150**	**53.7%**
Total (excluding Don't Know/Not Asked)	**63,650**	**100.0%**	**506,720**	**100.0%**

Figure 7
Population Distribution by On/Off Reserve Residency, Tenure and Subsidization, Aboriginal Peoples Survey, Canada 2001



A higher proportion of women than men were renters, particularly among those who lived off reserves. (See Table 6.) Secondly, among those living off reserves there were substantial differences in tenure among different identity groups. A much higher proportion of Inuit were renters (66%) than was found among the Registered Indian population (54%). The proportions of renters were lower among the Non-status Indian (40%) and Métis (38%) populations. Third, the proportion of those living off reserve in subsidized housing was much higher among the Inuit population (47%) than among

Registered Indian (16%), Non-status Indian (8%) and Métis (8%) populations. Last, the proportion of off reserve residents on a waiting list for subsidized housing was higher among the Registered Indian population (2.8%) than among the other identity groups.

Table 6
Household Tenure and Subsidization
By Aboriginal Identity, On/Off Reserve Residency and Gender,
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity, Tenure and Subsidization	On Reserve			Off Reserve		
	Male	Female	Total	Male	Female	Total
Total Aboriginal						
Renters	30.7%	32.9%	31.8%	43.0%	49.2%	46.3%
Subsidized	16.3%	16.8%	16.6%	11.3%	14.8%	13.2%
On Waiting List	1.8%	2.0%	1.9%	1.5%	2.0%	1.8%
Other Renters	12.6%	14.1%	13.3%	30.1%	32.4%	31.4%
Owners	69.3%	67.1%	68.2%	57.0%	50.8%	53.7%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Registered Indian						
Renters	30.6%	33.0%	31.8%	51.1%	57.2%	54.5%
Subsidized	16.4%	16.9%	16.6%	13.8%	18.2%	16.3%
On Waiting List	1.8%	2.0%	1.9%	2.4%	3.2%	2.8%
Other Renters	12.5%	14.1%	13.3%	34.9%	35.8%	35.4%
Owners	69.4%	67.0%	68.2%	48.9%	42.8%	45.5%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Non-Status Indian						
Renters	***	***	***	37.3%	44.0%	40.7%
Subsidized	***	***	***	6.9%	9.8%	8.4%
On Waiting List	***	***	***	1.6%	1.1%	1.4%
Other Renters	***	***	***	28.8%	33.0%	30.9%
Owners	***	***	***	62.7%	56.0%	59.3%
Total	***	***	***	**100.0%**	**100.0%**	**100.0%**
Métis						
Renters	***	***	***	35.1%	40.6%	38.0%
Subsidized	***	***	***	6.8%	9.3%	8.1%
On Waiting List	***	***	***	0.7%	1.2%	1.0%
Other Renters	***	***	***	27.6%	30.1%	28.9%
Owners	***	***	***	64.9%	59.4%	62.0%
Total	***	***	***	**100.0%**	**100.0%**	**100.0%**
Inuit						
Renters	***	***	***	65.5%	66.1%	65.8%
Subsidized	***	***	***	47.1%	47.5%	47.3%
On Waiting List	***	***	***	1.9%	1.6%	1.7%
Other Renters	***	***	***	16.6%	17.0%	16.8%
Owners	***	***	***	34.5%	33.9%	34.2%
Total	***	***	***	**100.0%**	**100.0%**	**100.0%**

*** Data suppressed because of small counts.

1.5 Dwelling Condition and Crowding

Two important housing indicators are the condition of a dwelling and whether the household is crowded. Dwelling condition is often described in terms of the need for major repairs, which is assessed by the respondents themselves in the Census of Canada. Whether a dwelling needs major repairs is referred to as the "adequacy standard."

Crowding is based on the National Occupancy Standard which identifies the numbers of rooms and bedrooms required to adequately accommodate households of various sizes and composition.[1] This is referred to as the "suitability standard."

Based on the 2001 APS, one third of Aboriginal people living on reserves were living in crowded households, and nearly half were living in dwellings in need of major repairs. (See Table 7.) Among the Aboriginal population living off reserves, the proportions were smaller but substantial. About 15% of Aboriginal people living off reserves were in crowded households and a similar proportion lived in dwellings needing major repairs.

There were some large differences in crowding and need for repairs between different types of households, depending on the location. On reserves, more than two thirds those living in multiple families were in crowded households, compared to 30% or less of other types of families. Similarly, off reserves a large percentage (54%) of those living in multiple family households were in crowded conditions, while 29% of those in lone parent households and only 10% of those in couple households were experiencing crowding. A high proportion, from 45% to 50%, of those on reserves were in housing needing major repairs, regardless of household type. Off reserves, the proportions were much lower with about 14% to 20% of the population living in housing that needed major repairs, depending on the household type.

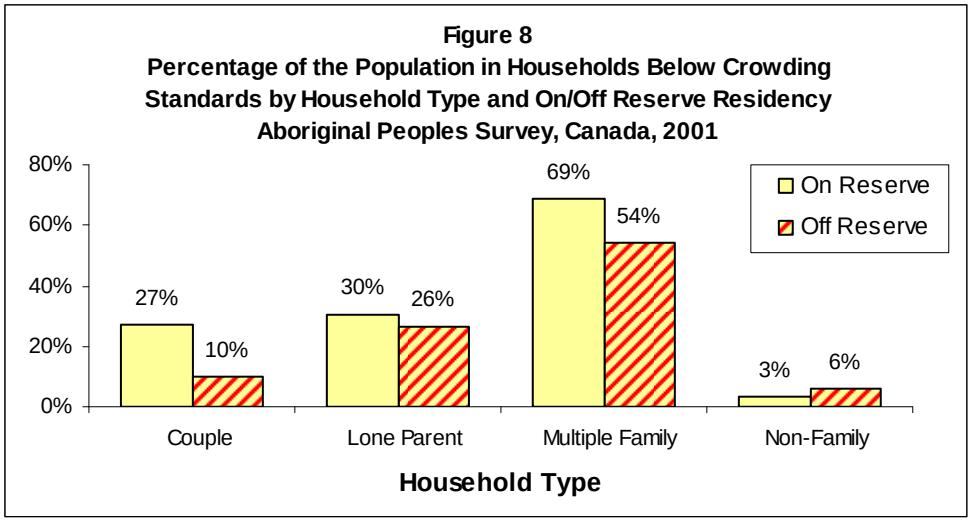
Off reserves, there was little difference between Registered Indian, Non-Status Indian and Métis populations in the percentages experiencing crowding or poor housing condition. Inuit, on the other hand, tended to experience higher rates of housing in need of major repairs, and especially high rates of crowding, compared to other Aboriginal populations living off reserves.

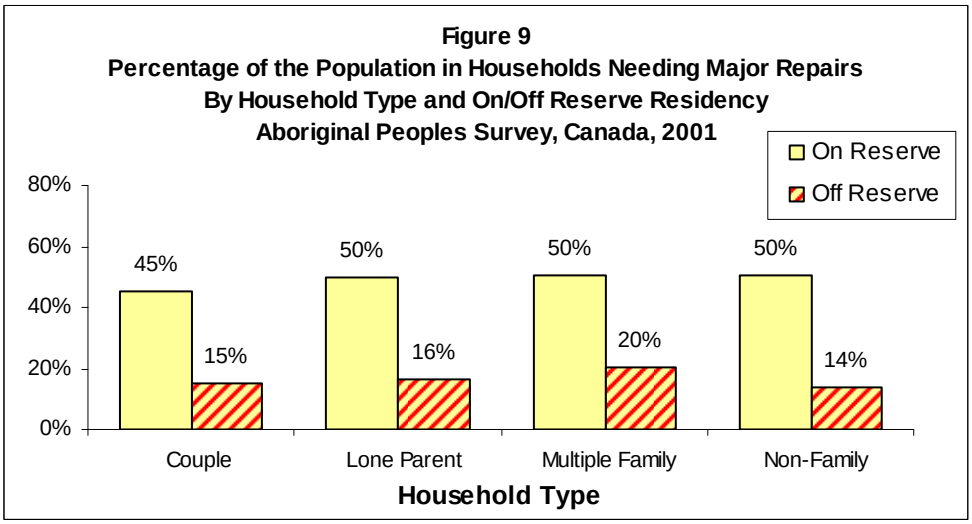
[1] The National Occupancy Standard (NOS) requires one bedroom for each cohabiting adult couple; each unattached adult household member (18+); each same-sex pair of children under age 18; and each additional boy or girl in the family. If there are two opposite-sex children under 5 years of age, they are expected to share a bedroom. A household of one individual can occupy a bachelor unit (i.e. a unit with no bedroom)

Table 7
Population Living in Households Below Standards by Aboriginal Identity, Household Type and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity and Household Type	Below Suitability Standard (Crowded)		Below Adequacy Standard (Needs Major Repairs)	
	On Reserves	Off Reserves	On Reserves	Off Reserves
Total Aboriginal				
Couple	27.3%	10.0%	45.3%	14.8%
Lone Parent	30.2%	26.4%	49.6%	16.5%
Multiple Family	68.8%	54.1%	50.3%	20.2%
Non-Family	3.2%	6.1%	50.4%	13.6%
Total	**34.2%**	**14.8%**	**47.5%**	**15.2%**
Registered Indian				
Couple	27.3%	11.3%	45.3%	15.2%
Lone Parent	29.7%	29.4%	49.7%	15.1%
Multiple Family	68.8%	54.9%	50.3%	20.9%
Non-Family	3.2%	6.4%	50.4%	12.7%
Total	**34.2%**	**16.9%**	**47.5%**	**15.1%**
Non-Status Indian				
Couple	***	7.4%	49.1%	13.5%
Lone Parent	***	25.4%	46.7%	19.6%
Multiple Family	***	43.8%	46.7%	18.7%
Non-Family	***	4.2%	***	15.3%
Total	***	**11.5%**	**48.9%**	**15.0%**
Métis				
Couple	***	8.3%	***	14.2%
Lone Parent	***	21.8%	***	16.7%
Multiple Family	***	49.9%	***	16.8%
Non-Family	***	6.8%	***	13.4%
Total	*****	**12.0%**	***	**14.6%**
Inuit				
Couple	***	28.2%	***	22.2%
Lone Parent	***	34.0%	***	20.3%
Multiple Family	***	74.0%	***	26.8%
Non-Family	***	7.8%	***	27.7%
Total	*****	**35.1%**	*****	**23.1%**

*** Data suppressed because of small numbers.





Both on and off reserves, Aboriginal people living in households that were on a waiting list for subsidization were more frequently living in housing that was below suitability (crowding) and adequacy (housing repair) standards compared to those living in other households, whether or not the other households were in rented or owner-occupied housing. (See Table 8.) On reserves, 40% of those on a waiting list were in crowded housing (compared to 33% of all renters) and 61% lived in housing that needed major repairs (compared to 45% of all renters). Off reserves, 24% of those living in households on a waiting list were crowded (compared to 15% of all renters) and 27% were living in housing that needed major repairs (compared to 21% of all renters).

Table 8
Population Living in Households Below Standards by Aboriginal Identity, Tenure, Subsidization and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity, Tenure & Subsidization	Crowded		Needs Major Repairs	
	On Reserves	Off Reserves	On Reserves	Off Reserves
Total Aboriginal				
Renters	**33.3%**	**14.9%**	**44.7%**	**21.0%**
Subsidized	32.4%	15.2%	45.8%	25.8%
On waiting list	40.2%	24.2%	60.8%	27.3%
Other renters	33.3%	14.2%	40.9%	18.7%
Owners	**34.2%**	**15.4%**	**48.5%**	**9.2%**
Total	**34.2%**	**15.2%**	**47.5%**	**14.8%**
Registered Indian				
Renters	**33.2%**	**14.5%**	**44.7%**	**22.0%**
Subsidized	32.4%	12.4%	46.0%	24.9%
On waiting list	40.0%	26.0%	60.2%	26.5%
Other renters	33.1%	14.5%	40.6%	20.3%
Owners	**34.2%**	**15.5%**	**48.5%**	**10.4%**
Total	**34.2%**	**15.1%**	**47.5%**	**16.9%**
Non-Status Indian				
Renters	***	**16.5%**	***	**18.8%**
Subsidized	***	19.1%	***	22.6%
On waiting list	***	19.7%	***	14.6%
Other renters	***	15.7%	***	17.9%
Owners	***	**14.2%**	***	**6.3%**
Total	***	**15.0%**	***	**11.5%**
Métis				
Renters	***	**12.7%**	***	**16.9%**
Subsidized	***	10.3%	***	16.9%
On waiting list	***	19.2%	***	36.2%
Other renters	***	13.1%	***	16.2%
Owners	***	**15.7%**	***	**9.1%**
Total	***	**14.6%**	***	**12.0%**
Inuit				
Renters	***	**24.0%**	***	**41.1%**
Subsidized	***	25.8%	***	43.2%
On waiting list	***	35.0%	***	57.5%
Other renters	***	17.7%	***	33.4%
Owners	***	**20.9%**	***	**22.9%**
Total	***	**23.1%**	***	**35.1%**

*** Data suppressed because of small numbers.

It can also be seen from the table that, on reserves, those living in owner occupied households tended to have less favourable conditions than renters, while off reserves the opposite was true, at least in terms of need for repairs. On reserves, 49% of those in owned dwellings were in housing that needed major repairs (compared to 45% of renters), while off reserves only 9% of owner-occupied households were in housing that needed major repairs (compared to 21% of renters). This finding, however, should be treated with caution, at least with regard to owned housing on reserves. As noted above, Clatworthy (2008, page 29) separated band-owned housing from owner-occupied housing on reserves, and he treated rental and band-owned housing as one category, in contrast to true owner-occupied housing. In his comparisons he found that the percentage of owner-occupied housing with deficiencies was lower than for rental or band-owned housing, and that owner-occupied housing was more likely to be acceptable (based on several aspects of dwelling condition).

Figure 10
Percent Living in Crowded Households
By On/Off Reserve Residency, Tenure and Subsidization
Aboriginal Peoples Survey, Canada 2001

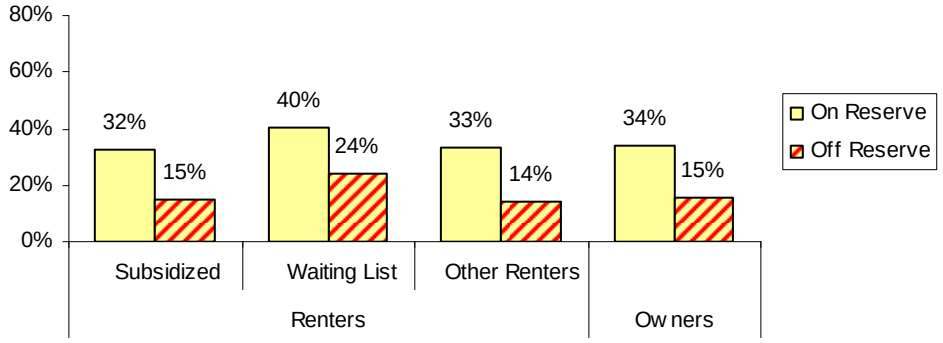
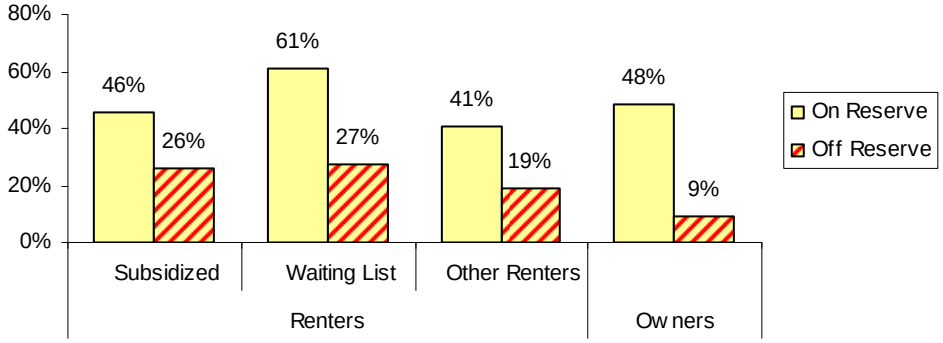


Figure 11
Percent Living in Dwellings that Need Major Repairs
By On/Off Reserve Residency, Tenure and Subsidization
Aboriginal Peoples Survey, Canada 2001



1.6 Affordability

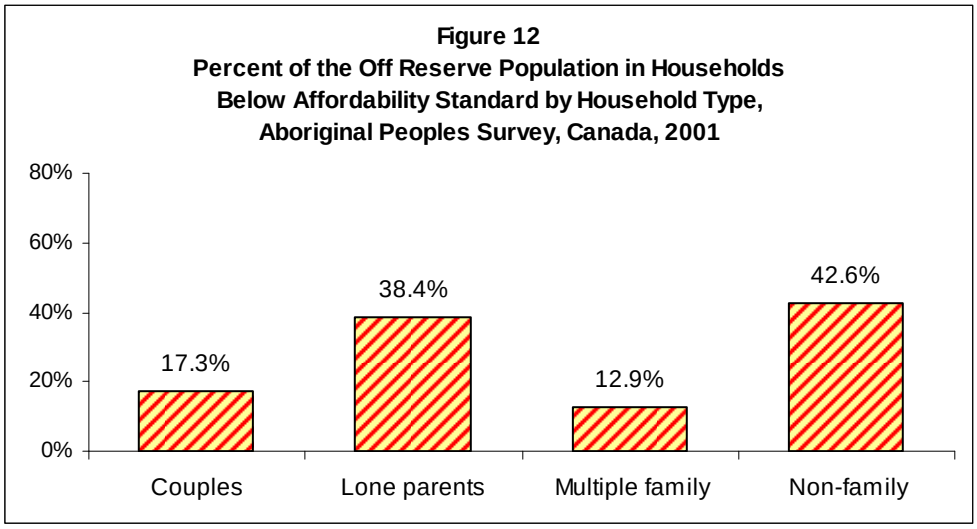
Because of the uniqueness of reserve housing markets, shelter cost data were not collected on reserves by either the census or the APS. Therefore, it is not possible to measure affordability on reserves. However, affordability can be measured among Aboriginal households living off reserves. (See Table 9 and Figure 12.)

Table 9
Off Reserve Population by Aboriginal Identity and Household Type
Showing Households Below Affordability Standard
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity & Household Type	Total (above or below standard)	Shelter Costs ≥ 30% of Household Income	
		Number	Percent
Total Aboriginal			
Couples	312,550	53,930	17.3%
Lone parents	96,100	36,950	38.4%
Multiple family	25,440	3,280	12.9%
Non-family	73,250	31,190	42.6%
Total	**507,340**	**125,350**	**24.7%**
Registered Indian			
Couples	112,630	23,170	20.6%
Lone parents	43,690	19,430	44.5%
Multiple family	9,670	1,490	15.4%
Non-family	27,870	12,360	44.3%
Total	**193,860**	**56,440**	**29.1%**
Non-Status Indian			
Couples	74,860	12,450	16.6%
Lone parents	20,100	6,940	34.5%
Multiple family	4,860	860	17.7%
Non-family	18,210	8,490	46.6%
Total	**118,030**	**28,740**	**24.3%**
Métis			
Couples	117,480	18,280	15.6%
Lone parents	31,330	11,220	35.8%
Multiple family	7,450	910	12.2%
Non-family	28,030	10,870	38.8%
Total	**184,290**	**41,280**	**22.4%**
Inuit			
Couples	14,750	1,400	9.5%
Lone parents	3,060	400	13.1%
Multiple family	3,880	***	***
Non-family	1,660	450	27.1%
Total	**23,350**	**2,360**	**10.1%**

*** Data suppressed because of small numbers.

It can be seen that 25% of the off-reserve Aboriginal population were in households that were below the affordability standard. Those in couple households fared better than those living in other types of households with only 17% living below the affordability standard. On the other hand, high percentages of those living in lone parent families (38%) and non-family households (43%) were below the affordability standard. A relatively low percentage of those living in multiple family households were below the affordability standard (13%). Multiple family households tend to have more people receiving income which increases the total household income, thereby making the housing more affordable. However, as seen in Table 7 above, those in multiple family households tend to experience more problems with both crowding and housing condition.

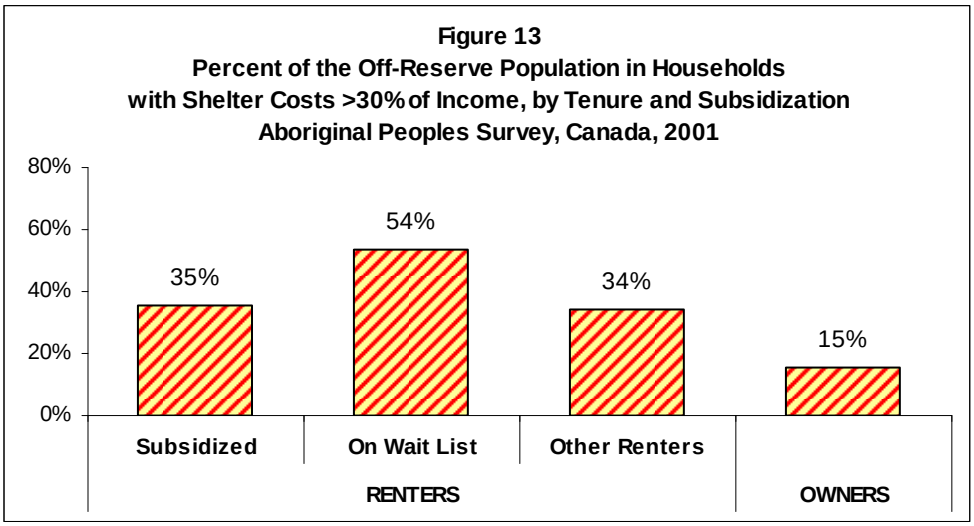


Among Aboriginal people living off reserves, a larger proportion of those living in rental housing (35%) than of those living in owner-occupied housing (15%) were in housing that was below the affordability standard. (See Table 10 and Figure 13.) Among renters, a higher percentage (54%) of those in households that were on a waiting list for subsidization were in housing below the affordability standard compared to subsidized rents (35%) or other renters (34%). This pattern held true for the individual identity groups including the Registered Indian, Non-Status Indian and Métis populations.

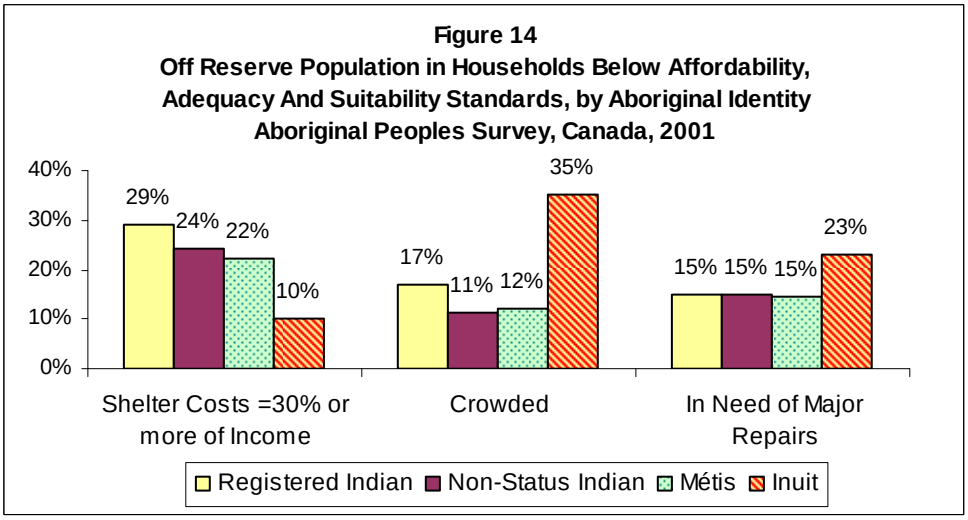
Table 10
Off Reserve Population by Aboriginal Identity, Tenure and Subsidization
Showing Households with Shelter Costs ≥ 30% of Income
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity & Household Type	Total Above or Below Standard	Shelter Costs ≥ 30% or More of Household Income	
		Number	Percent
Total Aboriginal			
Renters	231,130	81,690	35.3%
Subsidized	64,800	22,880	35.3%
On waiting list	8,960	4,810	53.7%
Other renters	157,370	54,000	34.3%
Owners	263,070	40,320	15.3%
Total	507,340	125,350	24.7%
Registered Indian			
Renters	104,090	42,390	40.7%
Subsidized	30,330	13,700	45.2%
On waiting list	5,470	3,130	57.2%
Other renters	68,290	25,550	37.4%
Owners	85,300	12,510	14.7%
Total	193,860	56,440	29.1%
Non-Status Indian			
Renters	47,000	15,590	33.2%
Subsidized	9,630	2,600	27.0%
On waiting list	1,570	870	55.4%
Other renters	35,800	12,120	33.9%
Owners	67,310	12,240	18.2%
Total	118,030	28,740	24.3%
Métis			
Renters	69,350	24,330	35.1%
Subsidized	14,770	6,060	41.0%
On waiting list	1,770	880	49.7%
Other renters	52,810	17,390	32.9%
Owners	110,320	16,050	14.5%
Total	184,290	41,280	22.4%
Inuit			
Renters	15,150	1,280	8.4%
Subsidized	10,860	790	7.3%
On waiting list	***	***	***
Other renters	3,890	430	11.1%
Owners	7,760	1,040	13.4%
Total	23,350	2,360	10.1%

*** Data suppressed because of small numbers.



Among the off-reserve population, patterns of housing needs were different for the various Aboriginal identity groups. (See Figure 14.) The Registered Indian population experienced the highest rate of need related to affordability, while the Inuit population had the highest level of need related to the household repairs and crowding. The percentage of Inuit households living in crowded dwellings (35%) was more than twice as high as among any other identity group.



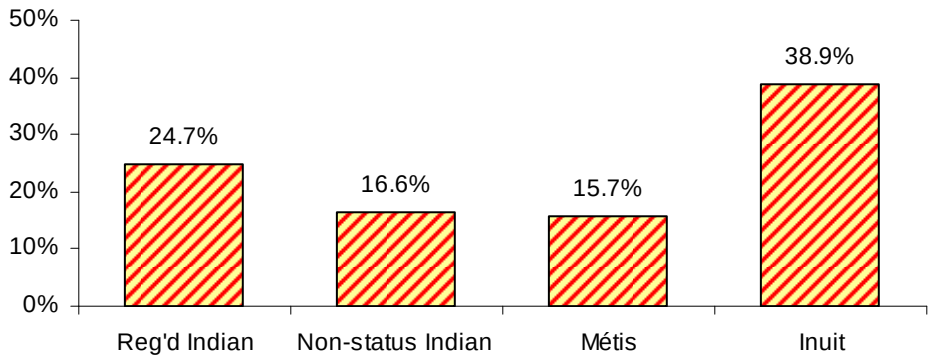
1.7 Core Housing Need

The concept of core need cannot be applied on reserves because of the difficulty of measuring affordability on reserves. It was found that 20% of Aboriginal population living off reserves were in core housing need. (See Table 11.) Among those living in couple households 13% were in core need, while much higher proportions of those in lone

parent households (37%) were in core need. Relatively high proportions of those in multiple family (23%) and non-family households (25%) were also in core need.

Among the various identity groups living off reserves, the Inuit population experienced the greatest level of core need (39%), followed by the Registered Indian population (25%). (See Figure 15.)

Figure 15
Percentage of Off Reserve Population Living in Core Housing Need
By Aboriginal Identity, Aboriginal Peoples Survey, Canada 2001



Among the Aboriginal population living off reserves, a much higher proportion of renters (31%) than owners (12%) were in core housing need. (Table 12) Among renters, those who were on a waiting list for subsidization had a higher percentage (49%) in core housing need compared to either those in subsidized housing (41%) or other renters (25%). This pattern also held true for the Registered Indian, Non-Status Indian and Métis populations.

Figure 16
Percentage of Off Reserve Population in Core Housing Need
By Tenure and Subsidization, Aboriginal Peoples Survey,
Canada 2001

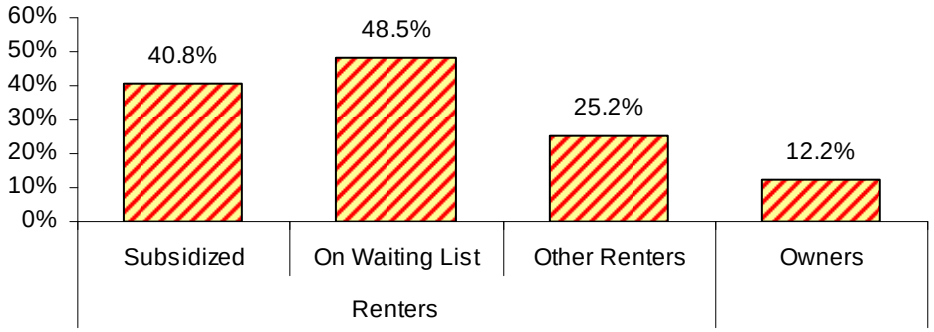


Table 11
Off Reserve Population by Aboriginal Identity and Household Type
Showing the Population Living In Core Housing Need
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity & Household Type	Total Above or Below Standard	In Core Need Number	Percent
Total Aboriginal			
Couples	323,940	42,060	13.0%
Lone parents	103,840	38,600	37.2%
Multiple family	25,780	6,020	23.4%
Non-family	78,180	19,610	25.1%
Total	**531,730**	**106,300**	**20.0%**
Registered Indian			
Couples	94,840	15,960	16.8%
Lone parents	42,300	17,680	41.8%
Multiple family	8,820	1,780	20.2%
Non-family	25,700	7,040	27.4%
Total	**171,660**	**42,460**	**24.7%**
Non-Status Indian			
Couples	70,790	7,040	9.9%
Lone parents	20,780	7,050	33.9%
Multiple family	4,420	500	11.3%
Non-family	17,360	4,180	24.1%
Total	**113,350**	**18,760**	**16.6%**
Métis			
Couples	146,560	13,500	9.2%
Lone parents	39,710	13,150	33.1%
Multiple family	8,370	1,300	15.5%
Non-family	35,470	8,240	23.2%
Total	**230,110**	**36,190**	**15.7%**
Inuit			
Couples	17,300	5,990	34.6%
Lone parents	3,820	1,750	45.8%
Multiple family	4,710	2,520	53.5%
Non-family	2,130	610	28.6%
Total	**27,950**	**10,870**	**38.9%**

Table 12
Off Reserve Population by Aboriginal Identity, Tenure and Subsidization
Showing the Population Living In Core Housing Need
Aboriginal Peoples Survey, Canada 2001

Aboriginal Identity & Household Type	Total Above or Below Standard	In Core Need Number	Percent
Total Aboriginal			
Owners	313,730	38,360	12.2%
Renters – Total	229,340	69,920	30.5%
Subsidized	64,390	26,250	40.8%
On waiting list	9,240	4,480	48.5%
Other renters	155,700	39,200	25.2%
Total	**543,070**	**108,280**	**19.9%**
Registered Indian			
Owners	82,630	12,870	15.6%
Renters – Total	89,030	29,590	33.2%
Subsidized	26,490	11,010	41.6%
On waiting list	4,810	2,190	45.5%
Other renters	57,730	16,390	28.4%
Total	**171,660**	**42,460**	**24.7%**
Non-Status Indian			
Owners	71,300	8,400	11.8%
Renters – Total	42,050	10,360	24.6%
Subsidized	7,920	2,720	34.3%
On waiting list	1,480	840	56.8%
Other renters	32,650	6,810	20.9%
Total	**113,350**	**18,760**	**16.6%**
Métis			
Owners	148,690	14,100	9.5%
Renters – Total	81,420	22,090	27.1%
Subsidized	17,810	6,360	35.7%
On waiting list	2,520	1,210	48.0%
Other renters	61,080	14,520	23.8%
Total	**230,110**	**36,190**	**15.7%**
Inuit			
Owners	11,110	2,990	26.9%
Renters – Total	16,840	7,880	46.8%
Subsidized	12,170	6,160	50.6%
On waiting list	430	240	55.8%
Other renters	4,240	1,480	34.9%
Total	**27,950**	**10,870**	**38.9%**

2. Housing Characteristics

The APS survey covered a number of aspects of housing that were not included in the general Census of Canada including services and facilities such as running water, indoor plumbing, electricity, heating equipment, the availability of safe water, smoke detectors, insurance, and housing modifications for those with disabilities.

2.1 Running Water

According to the APS, the vast majority of Aboriginal people living both on and off reserves had hot and cold running water. The percentage of the population without running water (either hot or cold) was slightly higher on reserves at about 4% than off reserves (0.6%). The percentage without running water was a little higher among those living in crowded households and where the housing was in need of major repairs. It was also slightly higher in owner-occupied housing than in rented housing. (See Table 13.)

Table 13
Population Living in Housing with Running Water
By On/Off Reserve Residency, Tenure, Crowding and Need for Major Repairs
Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Hot & Cold Running Water		No Running Water	
	On Reserves	Off Reserves	On Reserves	Off Reserves
All Respondents	**95.5%**	**98.8%**	**3.9%**	**0.6%**
Tenure				
Rented	97.4%	99.1%	2.0%	0.3%
Owned	94.9%	98.6%	4.6%	0.8%
Suitability Standard				
Crowded	93.2%	96.9%	6.2%	1.7%
Not Crowded	96.7%	99.2%	2.7%	0.3%
Adequacy Standard				
Major Repairs Needed	93.1%	98.2%	6.2%	1.2%
Major Repairs Not Needed	97.8%	99.0%	1.7%	0.6%

2.2 Safe Water

The APS asked two questions concerning water safety. Respondents were asked if their water was safe to drink, and they were also asked if there are times of the year when their water is contaminated. More than one quarter (27%) of those living on reserves said their water was unsafe to drink, more than one third (38%) living on reserves said that their water was contaminated at some times during the year. Almost half of those on reserves (46%) either said they had unsafe water or that their water was sometimes contaminated, or both. Among those living off reserves, the percentages indicating water safety problems were a bit less than half of the percentages among the on-reserve population. Still, 22% of off-reserve respondents said that they had unsafe water or that their water was sometimes contaminated, or both. (See Table 14)

Table 14
Population with Unsafe and/or Contaminated Water On and Off Reserves
By Household Type, Tenure, Crowding, and Need for Major Repairs
Aboriginal Peoples Survey, Canada, 2001

	Unsafe Water		Sometimes Contaminated		Unsafe &/or Sometimes Contaminated	
Household Characteristic	**On Reserve**	**Off Reserve**	**On Reserve**	**Off Reserve**	**On Reserve**	**Off Reserve**
All Respondents	**26.6%**	**11.6%**	**37.7%**	**18.0%**	**46.1%**	**22.1%**
Household Type						
Couple	27.5%	11.8%	39.2%	18.1%	47.9%	22.2%
Lone parent	26.2%	13.2%	35.7%	19.1%	43.9%	23.7%
Multiple family	26.3%	12.6%	37.1%	22.3%	45.2%	26.0%
Non-family	22.0%	9.8%	33.5%	15.8%	40.4%	19.1%
Tenure						
Rented	32.1%	13.5%	44.0%	19.9%	53.9%	24.8%
Owned	24.6%	10.4%	35.8%	16.9%	43.6%	20.5%
Suitability Standard						
Crowded	25.5%	16.4%	38.6%	22.8%	46.5%	28.1%
Not Crowded	27.1%	10.8%	37.3%	17.2%	45.8%	21.0%
Adequacy Standard						
Maj. Repairs Needed	32.0%	12.7%	42.6%	19.5%	52.3%	23.5%
Maj. Repairs Not Needed	22.5%	11.5%	35.0%	17.8%	42.3%	21.8%

There were not large differences in water safety between those living in different household types, nor between those living in crowded and uncrowded housing. However, a greater percentage of those living in rented housing reported water safety problems compared to those in owner-occupied housing. On reserves 54% of renters reported safety and/or contamination problems, compared to 44% of those in owner-occupied housing. Off reserves 25% of renters reported problems, compared to 21% of

those in owner-occupied housing. Those living in housing in need of major repairs also experienced more water safety problems than did those in housing where major repairs were not needed. On reserves 52% of those in housing needing major repairs reported safety and/or contamination problems, compared to 42% of others. Off reserves 24% of those in housing needing major repairs reported problems, compared to 22% of others.

2.3 Indoor Plumbing

In 2001 the great majority of the Aboriginal population had indoor plumbing, whether they lived on or off reserves. (See Table 15.) All but 4% of the Aboriginal population living on reserves and 3% of the Aboriginal population living off reserves had indoor plumbing. Flush toilets were somewhat more common off reserves (97%) than on reserves (91%) while septic tanks or sewage systems were slightly more common on reserves (86%) than off reserves (84%).

Table 15
Population in Dwellings with Indoor Plumbing by On/Off Reserve Residency and Household Characteristics, Aboriginal Peoples Survey, Canada 2001

Household Characteristic	On Reserves Flush toilet	On Reserves Septic tank or sewage system	On Reserves No indoor plumbing	Off Reserves Flush toilet	Off Reserves Septic tank or sewage system	Off Reserves No indoor plumbing
All Respondents	**90.7%**	**86.2%**	**3.7%**	**96.7%**	**83.9%**	**2.9%**
Tenure						
Rented	97.1%	91.1%	1.9%	98.7%	82.9%	0.9%
Owned	93.9%	90.1%	4.5%	98.3%	87.7%	1.2%
Suitability Standard						
Crowded	88.4%	84.4%	6.0%	96.6%	81.7%	2.9%
Not Crowded	91.9%	87.2%	2.6%	96.8%	84.1%	2.8%
Adequacy Standard						
Maj Repairs Needed	92.5%	88.1%	6.1%	95.7%	84.3%	3.8%
Maj Repairs Not Needed	96.9%	92.1%	1.7%	96.9%	83.6%	2.7%
Affordability						
Below standard	n.a	n.a	n.a	96.7%	80.1%	2.8%
Above standard	n.a	n.a	n.a	96.7%	84.9%	2.9%
Core Need						
Below standard	n.a	n.a	n.a			
Above standard	n.a	n.a	n.a			

n.a. Criterion not available on reserves.

There were some small differences in the prevalence of indoor plumbing for those with different household characteristics, among those living on reserves. A higher percentage of on reserve residents in owner-occupied housing lacked indoor plumbing (4.5%) compared to those in rented housing (1.9%). Similarly, higher percentages of those living on reserves in crowded housing (6.0%) or in housing needing major repairs (6.1%) lacked indoor plumbing, compared to those in uncrowded housing (2.6%) or in housing not needing major repairs (1.7%). Off reserves the differences among those with different household characteristics were very small.

2.4 Electricity

Virtually all Aboriginal people living on or off reserves have access to electricity. (See Table 16.) On reserves 98% of the population lived in housing with electricity while off reserves virtually 100% of the Aboriginal population lived in housing with electricity. There was little or no difference between those living in households with different characteristics or needs.

Table 16
Percentage of the Population Living in Dwellings with Electricity
By On/Off Reserve Residency and Household Characteristics
Aboriginal Peoples Survey, Canada 2001

Household Characteristics	On Reserves	Off Reserves
All Respondents	**97.9%**	**99.9%**
Tenure		
Rented	99.8%	99.9%
Owned	99.7%	99.8%
Suitability Standard		
Crowded	97.8%	99.7%
Not Crowded	98.0%	99.9%
Adequacy Standard		
Maj Repairs Needed	98.4%	99.8%
Maj Repairs Not Needed	99.0%	99.9%
Affordability		
Below standard	n.a	99.9%
Above standard	n.a	99.9%
Core Need		
Below standard	n.a	99.8%
Above standard	n.a	99.9%

n.a. Criterion not available on reserves.

2.5 Heating Equipment

The APS asked respondents about the type of heating in their households. On reserves 56% of the population had central heating of some kind (including oil or gas furnaces, other furnaces, or hot water radiators) while 33% had electric heating (baseboard or space heaters) and 30% had stove-type heating. Off reserves 69% of the population had central heating, 29% had electric heating and 15% had stove-type heating. These percentages total more than 100% because many people indicated they had more than one type of heating. (See Table 17.)

There seemed to be a somewhat complicated relationship between household type and heating equipment. On reserves, a higher percentage of those in lone parent households had central heating compared to those living in other household types, while a lower percentage had electric or stove-type heating. Off reserves, however, lower percentages of those in lone parent households, had either central heating or stove-type heating, compared to those in couple or multiple family households. Non-family households off reserves followed a similar pattern to that of lone parent households.

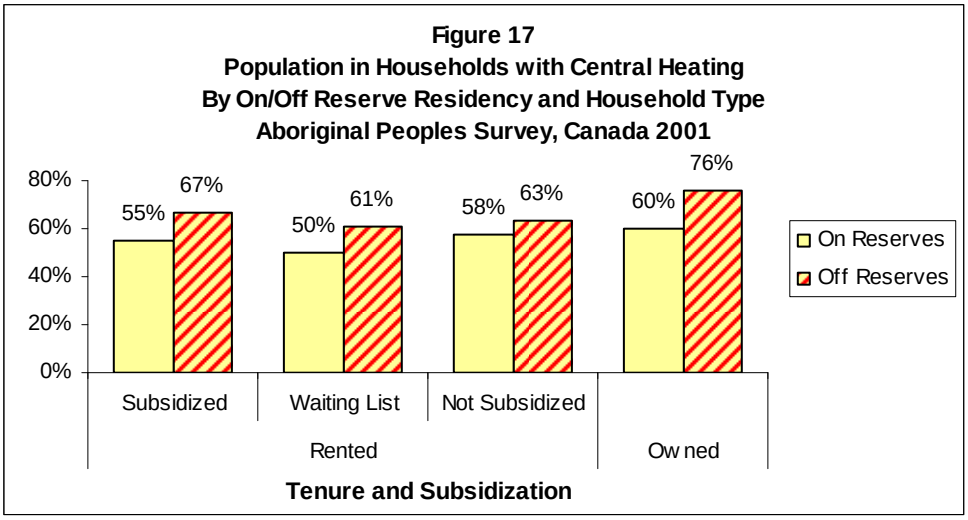
Both on and off reserves, higher percentages of those living in owner-occupied households had central heating, and lower percentages had electric heating compared to those living in renter households. However, a relatively high percentage of those in owner-occupied households off reserves had stove-type heating. (See Figure 18.) It appears that this may in part reflect households using stoves as auxiliary heating rather than as a main source. The total of the three heating types for owner-occupied households off reserves is 132%, much higher than the total for renter households (106%). This indicates that more owner-occupied households had multiple heating sources. It can also be seen from the table and from Figure 17 that a lower percentage of renters who were on a waiting list for subsidization had central heating, compared to other renters who were not on a waiting list.

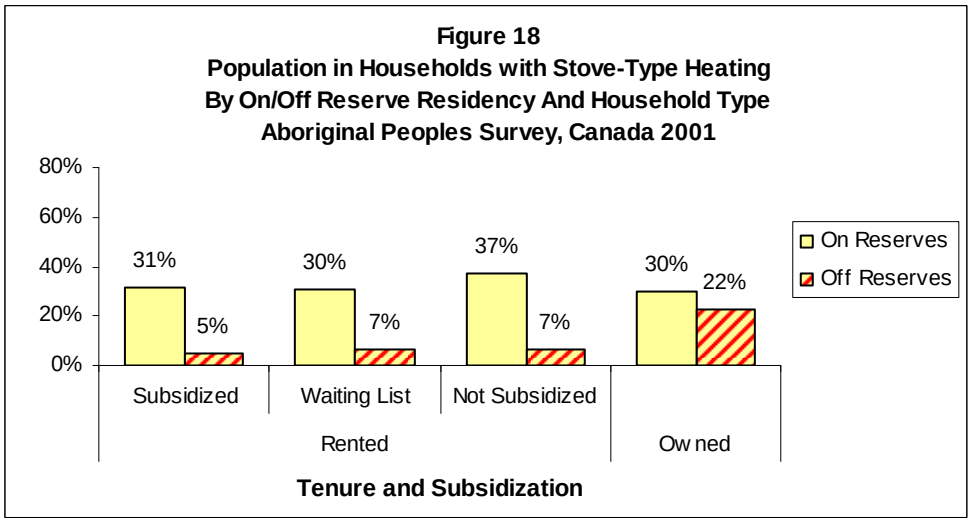
Comparisons of households in terms of crowding or need for major repairs showed little difference in heating equipment. However, a higher percentage of those living in off-reserve households that met the affordability standard had central heating (71%) compared to those in households that did not meet the affordability standard (65%). Similarly a higher percentage of those in affordable housing had stove-type heating (15%) compared to the percentage of those in housing that did not meet the affordability standard (10%). Again the percentages suggest that households with higher income levels tend to have more heating sources, perhaps supplementing their primary heating source with stove-type heating.

Table 17
Percentage of the Population with Various Types of Heating by On/Off Reserve Residency And Various Household Characteristics, Aboriginal Peoples Survey, Canada 2001

	Central Heating		Electric Heating		Stove-Type Heating	
Household Characteristics	**On Reserves**	**Off Reserves**	**On Reserves**	**Off Reserves**	**On Reserves**	**Off Reserves**
All Respondents	**56.3%**	**68.9%**	**33.4%**	**29.1%**	**29.7%**	**14.7%**
Household Type						
Couple	56.0%	71.4%	34.0%	26.3%	30.8%	17.5%
Lone parent	60.3%	65.7%	30.7%	32.3%	26.0%	9.1%
Multiple family	54.5%	75.5%	34.3%	20.6%	31.5%	16.4%
Non-family	54.0%	59.8%	32.7%	40.4%	26.4%	9.3%
Tenure						
Rented	**55.7%**	**64.2%**	**40.3%**	**35.8%**	**33.8%**	**6.1%**
Subsidized	54.7%	66.9%	40.9%	32.0%	31.3%	4.9%
On Waiting List	50.0%	60.6%	46.7%	38.8%	30.3%	6.6%
Not Subsidized	57.8%	63.2%	38.5%	37.3%	37.4%	6.6%
Owned	**60.3%**	**75.5%**	**32.8%**	**24.4%**	**29.6%**	**22.5%**
Suitability Standard						
Crowded	58.0%	69.7%	33.5%	26.0%	34.0%	18.9%
Not Crowded	59.7%	71.1%	36.3%	27.3%	28.3%	13.5%
Adequacy Standard						
Major Repairs Needed	55.3%	70.6%	31.7%	25.6%	31.0%	12.9%
Major Repairs Not Needed	56.8%	69.3%	34.3%	29.4%	29.1%	13.1%
Affordability Standard						
Shelter costs ≥ 30% or more of Income	n.a	64.7%	n.a	33.8%	n.a	10.3%
Shelter costs < 30% of Income	n.a	70.9%	n.a	27.3%	n.a	15.2%

n.a. Criterion not available on reserves.





2.6 Smoke and Carbon Monoxide Detectors

According to the APS, most Aboriginal people lived in housing with smoke detectors or smoke and carbon monoxide (CO) detectors, including 83% of the population on reserves and 93% of the population off reserves. On the other hand, 17% of the population on reserves and 7% of the population off reserves did not have detectors (or didn't know if they had detectors).

CO detectors were more common off reserves, with 26% of the off-reserve Aboriginal population having both a smoke and CO detector, compared to 11% of on-reserve population. There was some variation among household types. On reserves only 74% of those living in non-family households had a smoke and/or a CO detector, while from 82% to 85% of those in other household types had either one or both detectors. The vast majority of the reserve population, from 92% to 94%, had at least one type of

detector, regardless of household type. However, 30% of those in couple households had both smoke and CO detectors, compared to 17%-22% of those in other household types. (See Table 18.)

Table 18
Percentage of the Population with Smoke and/or Carbon Monoxide Detectors By On/Off Reserve Residency and Household Characteristics, Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Smoke Detector only		Smoke & CO Detector		Neither or Don't Know	
	On Reserve	Off Reserve	On Reserve	Off Reserve	On Reserve	Off Reserve
All Respondents	**71.5%**	**67.6%**	**11.3%**	**25.7%**	**16.9%**	**6.5%**
Household Type						
Couple	72.6%	63.4%	12.4%	30.2%	14.7%	6.2%
Lone parent	69.6%	74.8%	11.3%	18.5%	18.8%	6.4%
Multiple family	74.1%	69.9%	7.8%	21.9%	17.8%	8.2%
Non-family	61.2%	75.5%	13.0%	16.7%	25.8%	7.7%
Tenure						
Rented	**76.7%**	**78.6%**	**10.4%**	**15.6%**	**12.5%**	**5.7%**
Subsidized	78.0%	81.5%	10.8%	14.0%	10.9%	4.5%
On waiting list	66.4%	70.1%	9.8%	18.0%	23.8%	11.0%
Other renters	76.5%	77.8%	10.2%	16.1%	12.8%	5.9%
Owned	**70.0%**	**60.5%**	**12.6%**	**35.2%**	**17.2%**	**4.0%**
Suitability						
Crowded	71.9%	73.2%	8.8%	17.0%	19.3%	9.4%
Not Crowded	71.3%	66.5%	12.6%	27.4%	15.7%	5.9%
Adequacy						
Maj. Repairs Needed	68.8%	68.2%	6.9%	20.8%	24.0%	10.5%
Maj. Repairs Not Needed	75.1%	67.4%	15.6%	26.8%	9.0%	5.7%
Affordability						
Shelter costs ≥ 30% or more of Income	n.a	71.9%	n.a	20.2%	n.a	7.6%
Shelter costs < 30% of Income	n.a	66.1%	n.a	27.7%	n.a	6.0%
Core Housing Need						
Total below standards	n.a	75.8%	n.a	17.3%	n.a	6.6%
Total above standards	n.a	67.2%	n.a	29.0%	n.a	3.6%

n.a. Criterion not available on reserves.

On reserves, the proportion of the population living in households without detectors ranged from 15% of those in couple households to 26% of those in non-family households. Off reserves, the proportion without detectors was smaller, ranging from 6% of those in couple households to 8% of those in multiple family households. (See Figure 19.)

There were differences between those living in owner-occupied housing and those living in rental housing in the percentages with smoke and/or CO detectors. On reserves a higher proportion of renters (88%) had one or both types of detectors compared to owner-occupied households (83%). Off reserves 35% of those in owner-occupied households had both smoke and CO detectors compared to 16% of those in rental housing. There were also large differences between those on the subsidy waiting list and others. Among those living on reserves, 24% of those living in households on the waiting list for subsidized housing did not have detectors, compared to 11%-13% of other renters. A similar pattern existed among the off-reserve population, but the percentages without detectors were smaller. (See Figure 20.)

The vast majority of the population living in homes that were in good repair had smoke or CO detectors. Among those living in homes that needed major repairs, however, a smaller percentage had detectors, especially on reserves where 24% did not have smoke or CO detectors. (See Figure 21.)

Figure 19
Population in Households without Smoke or CO Detectors
By On/Off Reserve Residency and Household Type
Aboriginal Peoples Survey, Canada 2001

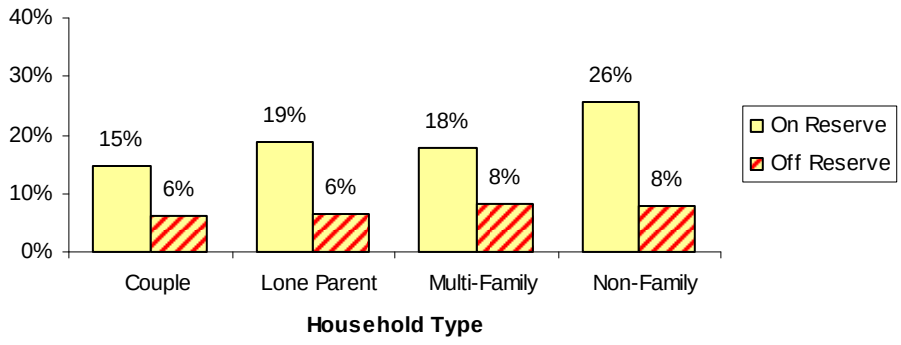
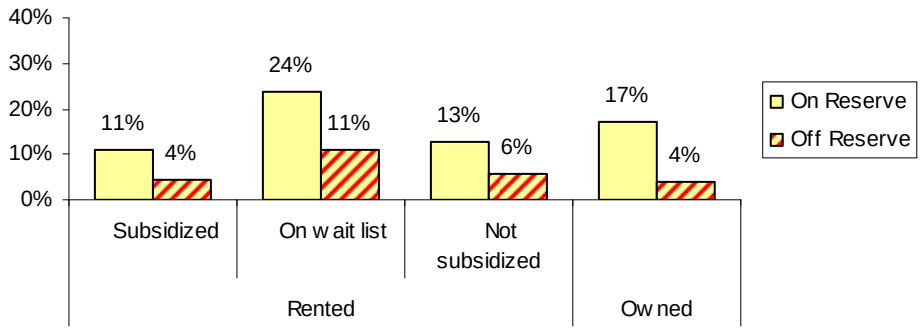
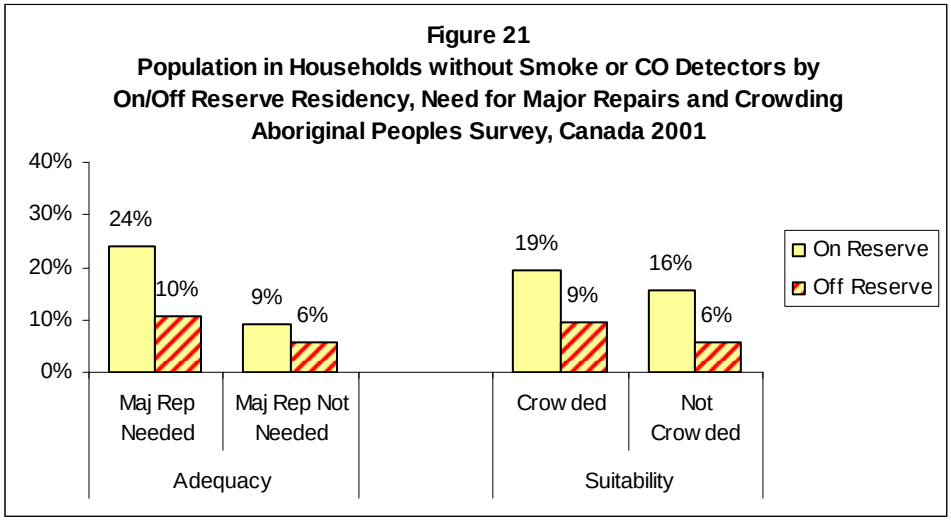


Figure 20
Population in Households without Smoke or CO Detectors
By On/Off Reserve Residency, Tenure and Subsidization
Aboriginal Peoples Survey, Canada 2001





2.7 Property Insurance

The percentage of the population living in insured housing, according to responses on the APS, was much lower on reserves (38%) than off reserves (68%). (See Table 19.) Property insurance status was related to all of the other household characteristics examined, including household type, tenure, condition, and affordability. Relatively high percentages of those in couple households lived in insured housing, both on reserves (41%) and off reserves (77%). (See Figure 22.) On reserves, a smaller percentage of those living in owner-occupied housing (34%) had property insurance compared to those living in rented housing (45%). Off reserves the opposite was true: 89% of those owner-occupied housing had property insurance compared to 43% of those in rented housing. Both on and off reserves, however, those on the waiting list for subsidized housing were less often insured than other renters. This is particularly true off reserves where only 22% of people in households on the waiting list for subsidies had insurance, compared to 35% of the corresponding population on reserves. (See Figure 23.)

Housing that failed to meet at least one of the housing standards also tended to be uninsured, particularly on reserves. For example, of those living in crowded housing on reserves only 28% were in insured housing compared to 43% of those in housing that was not crowded. (See Figure 24). The gap was similar in relation to the need for major repairs: 29% of those in on-reserve homes needing repairs were in insured housing compared to 46% of those in dwellings in good repair.

Off reserves, there was also a gap in coverage between those living in housing meeting standards and those in housing that was below the standards for crowding, state of repair and affordability. About 45% of Aboriginal people who lived off reserves in core housing need had property insurance, compared to 80% of those not in core housing need.

Table 19
Percentage of Population Living in Households That Are Insured
By On/Off Reserve Residency and Other Household Characteristics
Aboriginal Peoples Survey, Canada, 2001

Household Characteristic	On Reserves	Off Reserves
All Respondents	**37.5%**	**67.6%**
Household Type		
Couple	40.7%	76.8%
Lone parent	35.1%	49.9%
Multiple family	31.4%	54.5%
Non-family	36.7%	56.1%
Tenure		
Rented	**45.2%**	**43.2%**
Subsidized	50.0%	35.4%
On waiting list	35.2%	21.9%
Other renters	40.6%	47.8%
Owned	**34.0%**	**88.9%**
Suitability Standard		
Crowded	27.5%	42.8%
Not Crowded	42.6%	70.1%
Adequacy Standard		
Maj. Repairs Needed	28.6%	56.6%
Maj. Repairs Not Needed	45.9%	67.8%
Affordability Standard		
Shelter costs ≥ 30% or more of Income	n.a.	47.9%
Shelter costs < 30% of Income	n.a.	72.1%
Core Housing Need		
Total below standards	n.a.	44.7%
Total above standards	n.a.	79.6%

n.a. Criterion not available on reserves.

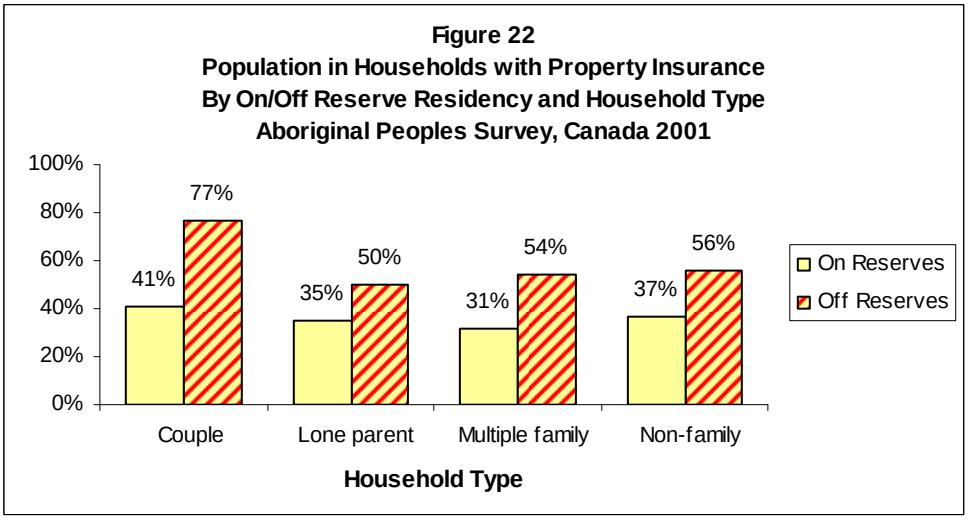


Figure 22
Population in Households with Property Insurance
By On/Off Reserve Residency and Household Type
Aboriginal Peoples Survey, Canada 2001
100%
80%
60%
40%
20%
0%
41%
77%
35%
50%
31%
54%
37%
56%
Couple
Lone parent
Multiple family
Non-family
Household Type
On Reserves
Off Reserves

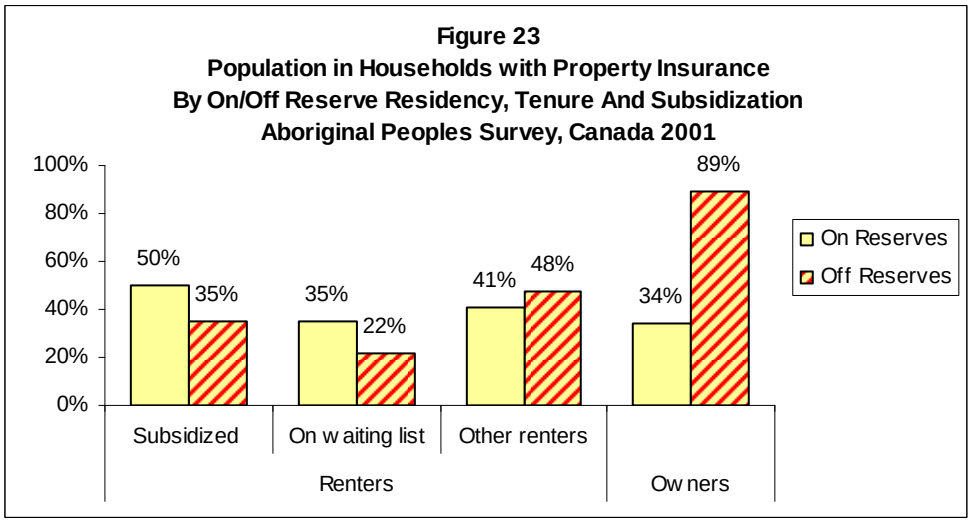


Figure 23
Population in Households with Property Insurance
By On/Off Reserve Residency, Tenure And Subsidization
Aboriginal Peoples Survey, Canada 2001
100%
80%
60%
40%
20%
0%
50%
35%
35%
22%
41%
48%
34%
89%
Subsidized
On waiting list
Other renters
Renters
Owners
On Reserves
Off Reserves

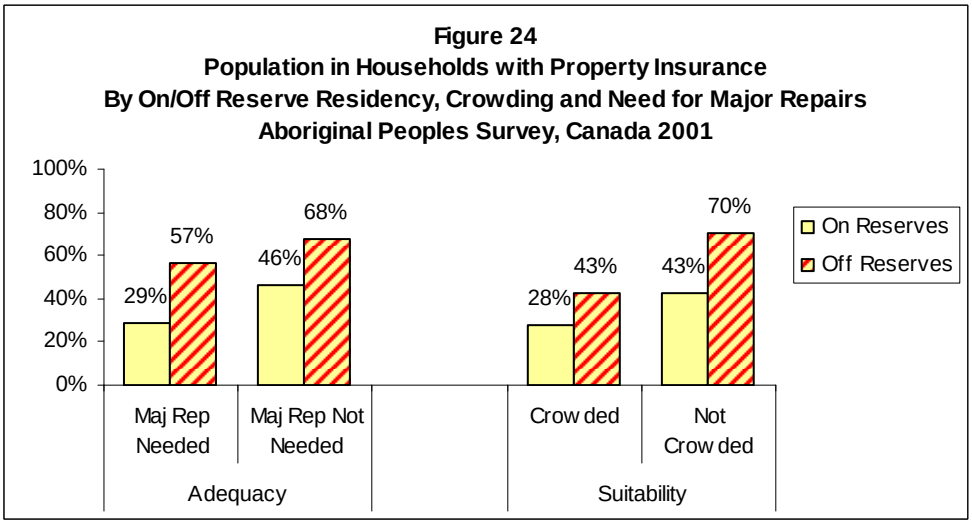


Figure 24
Population in Households with Property Insurance
By On/Off Reserve Residency, Crowding and Need for Major Repairs
Aboriginal Peoples Survey, Canada 2001
100%
80%
60%
40%
20%
0%
29%
57%
46%
68%
28%
43%
43%
70%
Maj Rep Needed
Maj Rep Not Needed
Crowded
Not Crowded
Adequacy
Suitability
On Reserves
Off Reserves

2.8 Housing Modifications

The APS asked about a number of possible modifications that may be made to accommodate residents with disabilities or special needs. Respondents were asked whether anyone needed special features in the home, and then asked whether specific features were in the home and if not, whether they were needed. If the respondent answered "No" to the first question (meaning that no one needed special features) they were not asked the second question. (See box.)

APS Questions on Housing Modifications

Question H4: "*Do you or anyone in your household need any special features in your home to assist with health conditions or health problems?" [If No go to H6.]*

Question H5: *"Does your home now have:*
- *Modifications to doors or hallways?*
- *Ramps?*
- *Modifications to the bathroom?*
- *Modifications to the kitchen?*
- *Alerting devices?*
- *Any other special features?"*

For each item in H5: *"If no, does your home need [this modification]?"*

Because of the wording and sequence of the questions and the exclusion of some households from answering some questions it is not possible to identify the overall numbers of households that have a particular modification, nor the number of people living in households that need a specific modification. Instead we can identify the percentages of the population living in households that ***need but do not have*** a given modification, as has been done in Table 20. This percentage varies between about 2% and 3% on reserves, and between 1% and 2% off reserves, depending on the type of modification being considered. However, the percentage increases with the age of the respondent. Where the respondent is 55 or older the percentage living in households that need but don't have modifications varies from about 5% to 8% on reserves, and from about 3% to 5% off reserves.

It should be kept in mind that respondents were not answering for themselves as individuals, but for the household as a whole. Therefore in most households there would have been others living in the households who were of different ages from that of the respondent. The relationship between age and the need for housing modifications is therefore muddied because the ages of all the individuals in the household, and which individuals need of housing modifications, are not known. Nevertheless, the table shows that higher levels of need for housing modifications are associated with older respondents, and for this reason Table 21 focuses on the households with older respondents.

Table 20
Percentage of Population in Households That Need but Don't Have Housing Modifications by On/Off Reserve Residency, Age of Respondent And Type of Modification, Aboriginal Peoples Survey, Canada 2001

Residency and Age of Respondent	Type of Modification				
	Door & Hall	Ramps	Bathroom	Kitchen	Alerting Devices
Total On Reserves	**2.8%**	**2.5%**	**3.0%**	**2.3%**	**2.7%**
15-24	2.2%	1.5%	1.9%	1.5%	1.8%
25-34	1.7%	1.6%	1.7%	1.3%	1.5%
35-54	2.4%	2.2%	2.8%	2.3%	2.6%
55 or Older	6.7%	6.9%	8.0%	5.6%	6.3%
Total Off Reserves	**1.4%**	**1.6%**	**2.0%**	**1.1%**	**1.3%**
15-24	0.6%	0.8%	0.8%	0.4%	0.5%
25-34	0.9%	1.0%	1.7%	0.8%	1.2%
35-54	1.7%	1.8%	2.1%	1.2%	1.1%
55 or Older	3.3%	4.3%	5.2%	3.2%	3.4%

Several relationships between housing characteristics and the need for housing modifications can be identified from Table 21. First it is apparent that there was a greater level of need for housing modifications on reserves than off reserves. When controlling for other household characteristics such as household type or crowding, the those living on reserves were in much greater need of housing modifications than those living off reserves. The only exception to this was among those living in housing that did not need major repairs.

Second, it can be seen that the combination of living on reserves and living in either crowded housing or housing that needs major repairs, is associated with much higher percentages of dwellings that "need but don't have" modifications. Third, there tend to be greater levels of need for door and hallway modifications, ramps, and bathroom modifications than for kitchen modifications and alert devices.

Table 21
Percentage of the Population 55 or Older in Households That Need but Don't Have Housing Modifications by On/Off Reserve Residency, Household Characteristics And Type of Modification, Aboriginal Peoples Survey, Canada 2001

Residency and Household Type	Type of Modification				
	Door & Hall	Ramps	Bathroom	Kitchen	Alerting Devices
HOUSEHOLD TYPE					
On Reserves					
Couples	7.0%	7.2%	8.3%	5.9%	6.4%
Lone Parents	7.5%	7.5%	9.6%	7.0%	5.9%
Multi-Family	6.7%	8.1%	9.1%	5.3%	7.7%
Non-Family	4.3%	3.8%	4.3%	3.8%	4.3%
Off Reserves					
Couples	5.9%	7.5%	7.9%	6.3%	5.4%
Lone Parents	2.8%	2.1%	3.6%	***	2.5%
Multi-Family	2.8%	7.7%	7.2%	***	3.9%
Non-Family	1.0%	1.4%	2.7%	***	1.4%
SUITABILITY STANDARD					
On Reserves					
Crowded	10.0%	10.0%	11.3%	7.9%	8.4%
Not Crowded	5.6%	5.9%	7.0%	4.9%	5.6%
Off Reserves					
Crowded	3.2%	3.5%	3.2%	1.9%	4.1%
Not Crowded	3.3%	4.4%	5.5%	3.3%	3.3%
ADEQUACY STANDARD					
On Reserves					
Major Repairs Needed	11.4%	10.6%	12.4%	9.2%	9.8%
Major Repairs Not Needed	2.1%	3.4%	3.6%	2.3%	3.1%
Off Reserves					
Major Repairs Needed	4.3%	7.1%	9.7%	5.6%	7.1%
Major Repairs Not Needed	3.1%	3.9%	4.5%	2.8%	2.8%

*** Data suppressed because of small numbers.

2.9 Age of Housing

Housing inhabited by Aboriginal people off reserves tends to be older than the housing on reserves. (See Tables 22 and 23.) At the time of the APS only 10% of dwellings on reserve were more than 30 years old, compared to 45% of dwellings off reserve. Both on and off reserves, older respondents tended to live in older housing, and those in non-family households also tended to live in older housing. On reserves, a larger percentage of those in owner occupied housing (12%) lived in older housing compared to those in rented housing (6%). Off reserves a smaller percentage of those in owner-occupied housing (42%) lived in older housing compared to those living in rented housing (49%).

Table 22
Age of Housing On Reserves by Age of Respondent, Household Type, Household Condition, Crowding, and Tenure, Aboriginal Peoples Survey, Canada 2001

Respondent and Household Characteristics	Age of Housing			
	0-10 Yrs	**11-30 Yrs**	**31+ Yrs**	**Total**
All Respondents	**34.5%**	**55.1%**	**10.4%**	**100.0%**
Age of Respondent				
15 to 24	34.6%	57.2%	8.2%	100.0%
25 to 34	42.7%	47.8%	9.5%	100.0%
35 to 54	32.5%	57.2%	10.3%	100.0%
55 and over	26.1%	57.4%	16.5%	100.0%
Household Type				
Couple Households	37.4%	52.9%	9.7%	100.0%
Lone Parent Households	33.3%	55.3%	11.5%	100.0%
Multi-Family Households	31.9%	59.8%	8.3%	100.0%
Non-Family Households	23.8%	57.5%	18.7%	100.0%
Tenure				
Renters	40.4%	53.8%	5.8%	100.0%
Owners	31.7%	55.9%	12.4%	100.0%

Table 23
Age of Housing Off Reserves by Age of Respondent, Household Type and Tenure
Aboriginal Peoples Survey, Canada 2001

Respondent and Household Characteristics	Age of Housing (percent per age range)			
	0-10 Yrs	**11-30 Yrs**	**31+ Yrs**	**Total**
All Respondents	**29.8%**	**25.0%**	**45.2%**	**100.0%**
Age of Respondent				
15-24	30.4%	25.7%	43.9%	100.0%
25-34	30.1%	26.2%	43.7%	100.0%
35-54	30.1%	24.2%	45.7%	100.0%
55+	26.9%	24.6%	48.5%	100.0%
Household Type				
Couples	31.9%	24.8%	43.3%	100.0%
Lone parents	26.9%	25.8%	47.3%	100.0%
Multiple family	37.2%	26.7%	36.1%	100.0%
Non-family	21.6%	24.6%	53.9%	100.0%
Tenure & Subsidization				
Renters	**25.9%**	**25.0%**	**49.1%**	**100.0%**
Subsidized	36.8%	28.2%	35.0%	100.0%
On wait list	20.6%	22.0%	57.4%	100.0%
Other renters	21.6%	23.9%	54.5%	100.0%
Owners	**33.2%**	**25.2%**	**41.6%**	**100.0%**

Both on and off reserves, age of housing was correlated with housing adequacy: higher percentages of older housing needed major repairs. (See Table 24 and Figure 25.) On reserves the percentage of respondents living in housing needing major repairs increased from 23% of those in housing 0-10 years old, to 36% of those in housing over 30 years old. Off reserves, the percentage living in housing needing major repairs increased from 9% of those in housing 0-10 years old, to almost 20% of those in housing over 30 years old. However, there was little or no apparent relationship between the age of housing and household crowding. On reserves those living in newer housing had higher rates of crowding than those living in older housing. Off-reserves there was little difference in crowding between those living in housing of different ages.

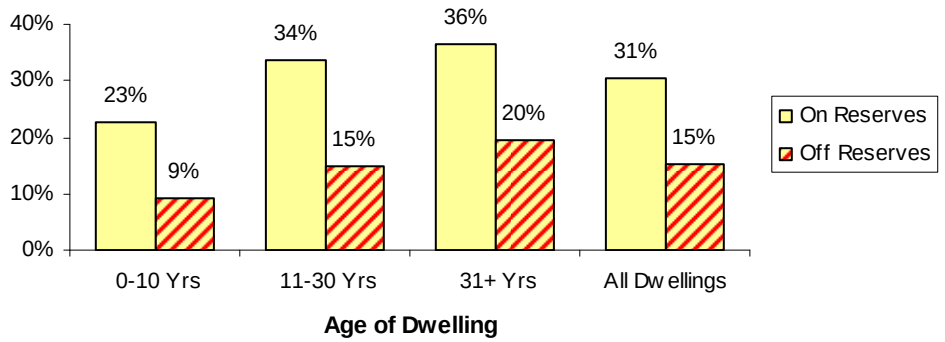
Off reserves, affordability and core housing need were correlated with the age of housing. Higher percentages of those living in older homes were in households below the affordability standard, and similarly higher percentages were living in core housing need.

Table 24
Housing Needs by Age of Housing and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

Housing Need Indicator	Age of Housing (percent per age range)			
	0-10 Yrs	**11-30 Yrs**	**31+ Yrs**	**Total**
Suitability: % in Crowded Households				
On Reserves	35.0%	34.4%	29.6%	34.2%
Off Reserves	16.2%	14.5%	15.1%	15.3%
Adequacy: % in Housing in Need of Major Repairs				
On Reserves	22.7%	33.6%	36.5%	30.6%
Off Reserves	9.3%	14.7%	19.6%	15.4%
Affordability: % in Households with Shelter costs ≥ 30% or more of Income				
On Reserves	n.a	n.a	n.a	n.a
Off Reserves	21.3%	24.1%	28.8%	25.4%
Overall: % in Core Need Households				
On Reserves	n.a	n.a	n.a	n.a
Off Reserves	14.5%	19.5%	21.8%	19.9%

n.a. Criterion not available on reserves.

Figure 25
Population Living in Dwellings Needing Major Repairs
By Age of Dwelling and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001



3. Income and Labour Market Activity

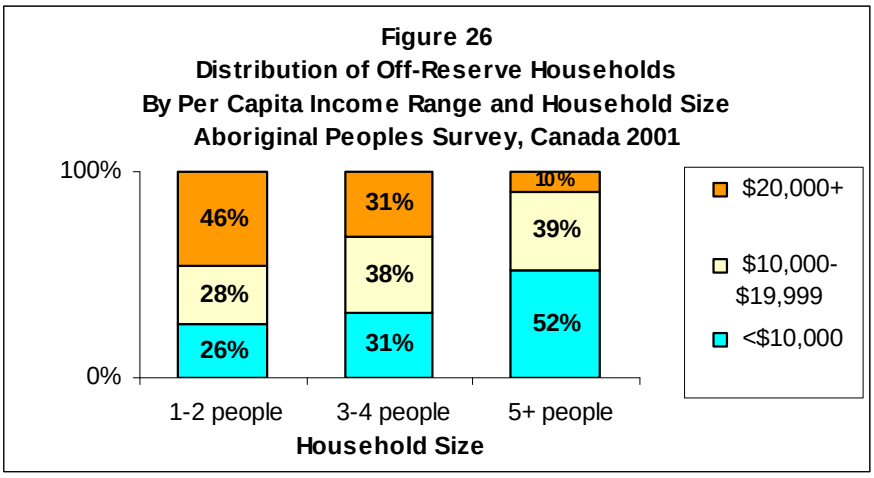
3.1 Household Size and Income

Both household size and household income have an impact on the affordability of housing. Larger households require more space, but larger households may also include more income-earners. Per capita income combines household size and income into a single measure that is useful in looking at housing affordability and consumption. Data on per capita income was only available for the off-reserve population.

Per capita income tends to be higher in smaller off-reserve households. (See Table 25.) Almost half of those living in 1-2 person households off reserves were in households with *per capita* incomes of more than $20,000 in 2001. In contrast, 31% of those living in 3-4 person households and only 10% of those living in households of 5 or more people were in households with *per capita* incomes in this range. On the other hand, a majority of those in off-reserve households with 5 or more people were in households with *per capita* incomes below $10,000. (See Figure 26.)

Table 25
Population Living Off Reserves by Per Capita Household Income and Household Size, Aboriginal Peoples Survey, Canada 2001

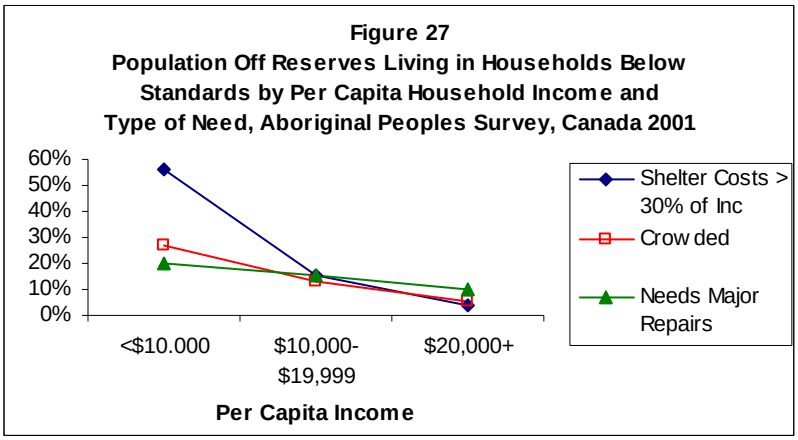
	Number in Household			
Per Capita Household Income	**1-2 People**	**3-4 People**	**5+ People**	**All Households**
< $5,000	11.0%	11.9%	20.9%	13.5%
$5,000 - $9,999	15.0%	19.3%	30.9%	20.3%
$10,000 - $14,999	16.5%	20.5%	23.3%	19.7%
$15,000 - $19,999	11.6%	17.2%	15.3%	14.7%
$20,000 - $24,999	10.2%	12.1%	5.3%	9.9%
$25,000+	35.7%	19.1%	4.3%	21.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**



Household income levels were clearly related to housing need as defined by CMHC. As *per capita* household income increased the percentages of the population living below housing standards decreased. (See Table 26.) The decline was particularly rapid in the percentage living in households not meeting the affordability standard, and in the percentage living in households in core housing need. As per capita incomes increased from less than $5,000 to more than $10,000, the percentage living in households below the affordability standard declined from about 76% to 20%. As per capita incomes increased from $10,000 to more than $20,000, the percentages living in households below the affordability standard continued to decline, but at a more gradual rate. Declines were also seen in the measures of suitability (crowding) and adequacy (need for major repairs) as income increased, but these declines were more gradual than the declines in households not meeting the affordability standard. (See Figure 27.) The percentage living in core need also declined dramatically with per capita household income, from almost 50% of those with per capita household incomes below $10,000 to less than 2% of those with per capita incomes over $15,000.

Table 26
Housing Needs Among the Aboriginal Population Living Off Reserves
By Per Capita Household Income Levels
Aboriginal Peoples Survey, Canada 2001

	Percent of Households Below Standards			
Per Capita Household Income	**Affordability**	**Suitability (Crowding)**	**Adequacy (Needs Major Repairs)**	**Core Housing Need**
All Income Levels	**25.4%**	**15.3%**	**15.4%**	**20.0%**
< $5,000	75.9%	29.1%	19.2%	51.5%
$5,000 - $9,999	43.3%	25.4%	21.1%	47.6%
$10,000 - $14,999	19.5%	15.0%	17.0%	14.4%
$15,000 - $19,999	9.3%	11.3%	13.6%	3.4%
$20,000 - $24,999	5.9%	7.4%	12.2%	1.1%
$25,000+	3.3%	4.1%	8.9%	0.4%



Housing standards are also related to shelter costs. (See Table 27.) The percentage living in households that spent more than 30% of income on shelter costs was lowest among those with the lowest monthly shelter costs, as would be expected. This percentage reached its highest level (32%) among those living in households whose monthly shelter costs were in the $500-$749 range. The proportion living in crowded households and in housing that needed major repairs declined as shelter costs increased, again as would be expected. Of those in households spending up to $749 per month on shelter, about 25% were in core housing need. Core housing need declined among those with monthly shelter costs of $750 or more.

Table 27
Percentage of the Off Reserve Population Living In Housing Below Standards, by Shelter Costs
Aboriginal Peoples Survey, Canada 2001

	Percentage of Households Below Standards			
Monthly Shelter Costs	**Shelter Costs ≥ 30% of Income**	**Crowded**	**Dwelling Needs Major Repairs**	**In Core Housing Need**
< $250	7.6%	19.0%	21.0%	25.4%
$250 - $499	23.7%	16.7%	15.9%	25.9%
$500 - $749	31.7%	17.0%	17.2%	25.0%
$750 - $999	28.4%	15.0%	13.7%	17.3%
$1000 - $1249	22.1%	10.8%	12.8%	10.0%
$1250+	28.8%	9.8%	10.3%	5.5%
All Households	**25.4%**	**15.3%**	**15.4%**	**20.0%**

3.2 Sources of Income

Based on responses to the APS, most Aboriginal people (68%) living off reserves had income from employment in 2001. (See Table 28.) In addition about 11% of them received income from Employment Insurance, about 10% received income from federal pensions (CPP or QPP), about 15% received social assistance income, and 25% received income from various other sources. While all of the identity groups tended to follow a similar pattern, there were differences among them. For example, a relatively high percentage of the Métis respondents (73%), and a relatively low percentage of the Registered Indian respondents (63%), received employment income.

Table 28
Percentage of the Off Reserve Population Receiving Income from Various Sources
By Per Capita Household Income and Identity
Aboriginal Peoples Survey, Canada 2001

Per Capita Household Income & Sources of Individual Income*	Total Aboriginal	Registered Indian	Non-Status Indian	Métis	Inuit
All Per Capita Income Levels					
Employment	68.8%	63.4%	66.1%	73.2%	69.0%
E.I.	10.6%	10.3%	10.1%	11.2%	9.6%
Federal Pensions	9.5%	10.0%	10.0%	9.5%	8.6%
Social Assistance	14.9%	20.2%	17.0%	10.4%	20.5%
Other sources	25.2%	27.4%	26.6%	22.1%	31.1%
< $10,000					
Employment	53.6%	48.2%	49.6%	60.6%	60.4%
E.I.	9.8%	8.8%	8.8%	12.1%	8.4%
Federal Pensions	7.2%	6.8%	7.1%	7.7%	9.4%
Social Assistance	32.9%	39.1%	35.7%	26.8%	31.6%
Other sources	32.3%	33.4%	33.6%	28.4%	33.8%
$10,000-$19,999					
Employment	70.6%	67.5%	69.4%	72.0%	72.9%
E.I.	11.1%	10.8%	10.7%	11.2%	12.8%
Federal Pensions	13.2%	14.0%	13.4%	13.5%	10.2%
Social Assistance	7.9%	9.7%	8.3%	6.7%	11.5%
Other sources	26.0%	27.4%	27.2%	23.9%	30.7%
$20,000+					
Employment	82.9%	81.4%	82.0%	83.8%	85.6%
E.I.	11.0%	11.9%	11.2%	10.5%	7.3%
Federal Pensions	8.1%	10.1%	9.4%	6.9%	3.9%
Social Assistance	3.3%	4.5%	4.3%	1.6%	6.0%
Other sources	16.9%	18.5%	17.4%	15.5%	24.4%

* Individuals could report multiple sources, therefore totals add to more than 100%.

Sources of income were also related to per capita household income levels. Among those living in households with incomes of less than $10,000 per person, a relatively low

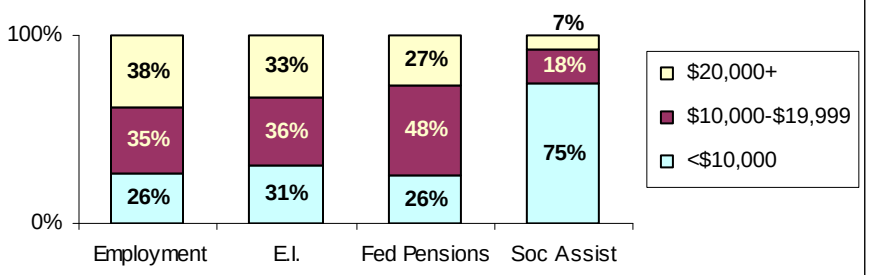
percentage received income from employment (54%) while a relatively high percentage received income from social assistance (33%). On the other hand, in households with incomes of more than $20,000 per person, a high percentage received income from employment (83%) while a very low percentage received income from social assistance (3%).

Differences between identity groups in sources of income were largest in households with low per capita incomes, and were much smaller in households with high per capita incomes. Comparing the Registered Indian and Métis populations, for example, among those with per capita incomes below $10,000 there was a difference of about 12 points in the percentages with employment income (Métis 60% , Registered Indians 48%), and also a difference of 12 points in the percentages with social assistance income (Métis 27%, Registered Indians 39%). Among those with per capita incomes of $20,000 or more, however, the differences were much smaller: two and three percentage points respectively.

The pattern among the Inuit population was somewhat different than among the other identity groups. Compared to the other groups, the Inuit population had higher proportions with employment income, social assistance and "other" sources[2], but lower proportions with income from employment insurance or federal pensions. It should be kept in mind that Inuit income levels tend to be higher because this population lives predominantly in northern Canada where wage levels, and the cost of living, are relatively high.

Another way of looking at this relationship is to compare the income levels of households where the respondents had different sources of income. (See Figure 28.) Where individuals received income from social assistance, most households (75%) had per capita incomes below $10,000, but where income was reported from employment, E.I. or federal pensions, most households had higher per capita incomes.

Figure 28
Per Capita Income Levels of Off-Reserve Households
By Respondent's Source of Income
Aboriginal Peoples Survey, Canada 2001



[2] "Other income" included other government income, child support, alimony, education allowances, scholarships, Northern allowance, and interest from investments.

Housing consumption and income levels are related to sources of income. The percentages living in crowded housing or in housing needing major repairs were lower among those who received employment income than among those without any employment income, both on reserves and off reserves. (See Table 29 and Figures 29 and 31.) The percentages living in crowded housing or housing in need of repair were much higher on reserves than off reserves, but in both locations those with employment income tended to have better housing than those without employment income. Among the on-reserve population, about 39% of those without employment lived in crowded housing compared to 30% of those with employment income. Similarly, 52% of those living on reserves without employment income were in housing that needed major repairs, compared to 44% of those with employment income.

Table 29
Population Living in Housing Below Standards by Sources of Income, On/Off Reserve Residency, and Type of Standard
Aboriginal Peoples Survey, Canada 2001

Sources of Income	Percent in Crowded Housing	Percent in Housing Needing Major Repairs	Percent with Shelter Costs ≥ 30%	Percent in Core Housing Need
On Reserves - With vs. Without Employment Income				
Employment Income	30.2%	43.6%	n.a	n.a
No Employment Income	38.5%	51.6%	n.a	n.a
Off Reserves - With vs. Without Employment Income				
Employment Income	13.7%	14.4%	20.1%	15.1%
No Employment Income	18.7%	17.5%	37.2%	30.9%
On Reserves - With vs. Without Social Assistance Income				
Social Assistance	40.5%	53.7%	n.a	n.a
No Social Assistance	30.6%	43.9%	n.a	n.a
Off Reserves - With vs. Without Social Assistance Income				
Social Assistance	28.2%	19.6%	51.9%	31.1%
No Social Assistance	13.0%	14.6%	20.8%	14.3%

n.a Criterion not available on reserves.

Among the off-reserve population, about 37% of those without employment income were in households below the affordability standard, compared to 20% of those with employment income. Similarly, 31% of those living off reserves without employment income were in core housing need, compared to 15% of those with employment income.

There was also a strong relationship between housing standards and social assistance income, both on and off reserves. (See Figures 30 and 32.) On reserves, about 40% of

those who received social assistance were living in crowded housing compared to 30% of those who did not receive social assistance, while 54% of those who received social assistance were living in housing needing major repairs compared to 44% of those who did not receive social assistance.

Off reserves, about 28% of those who received social assistance were living in crowded housing compared to 13% of those who did not receive social assistance. About 20% of those who received social assistance were living in housing needing major repairs compared to 15% of those who did not receive social assistance. The differences were much greater concerning affordability: 52% of those receiving social assistance were below the affordability standard, compared to 21% of those who did not receive social assistance. There was also a strong correlation between social assistance income and core need; 31% of social assistance recipients were in core housing need, compared to 14% of those not receiving social assistance.

Figure 29
Population Living in Housing that is Crowded or Needs Major Repairs
By On/Off Reserve Location and Received Employment Income
Aboriginal Peoples Survey, Canada 2001

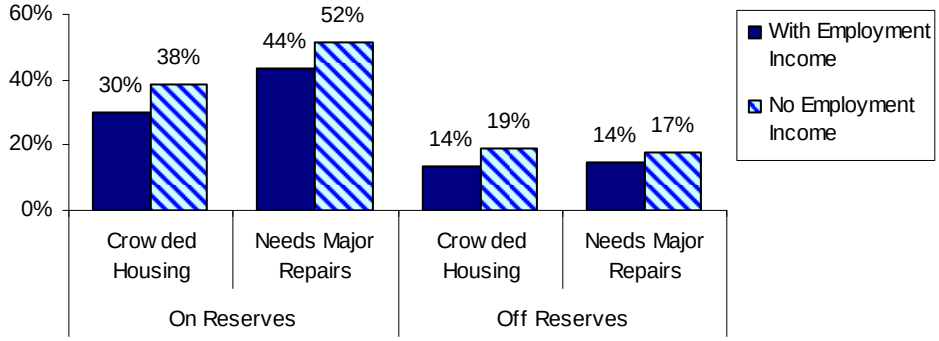
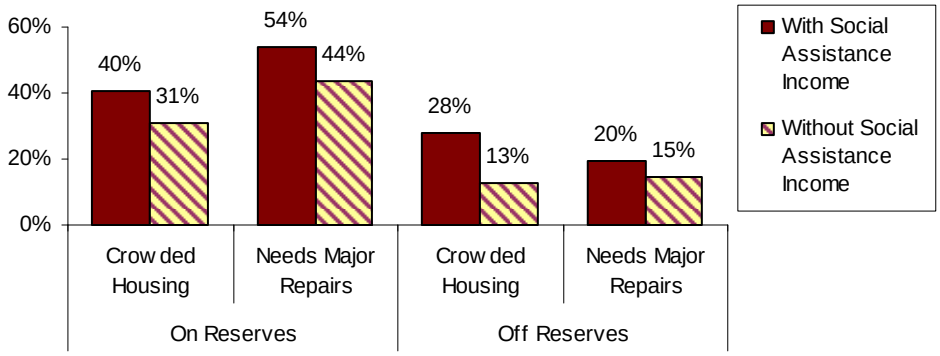
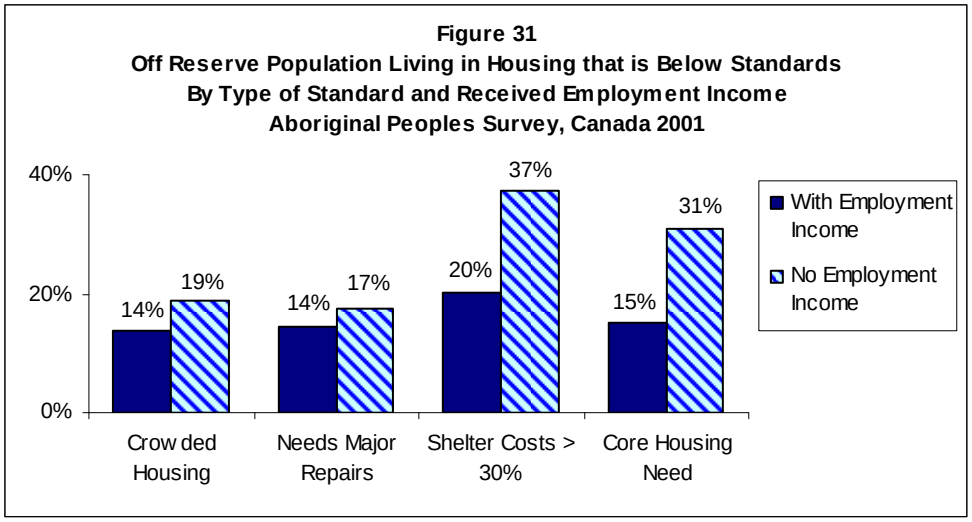
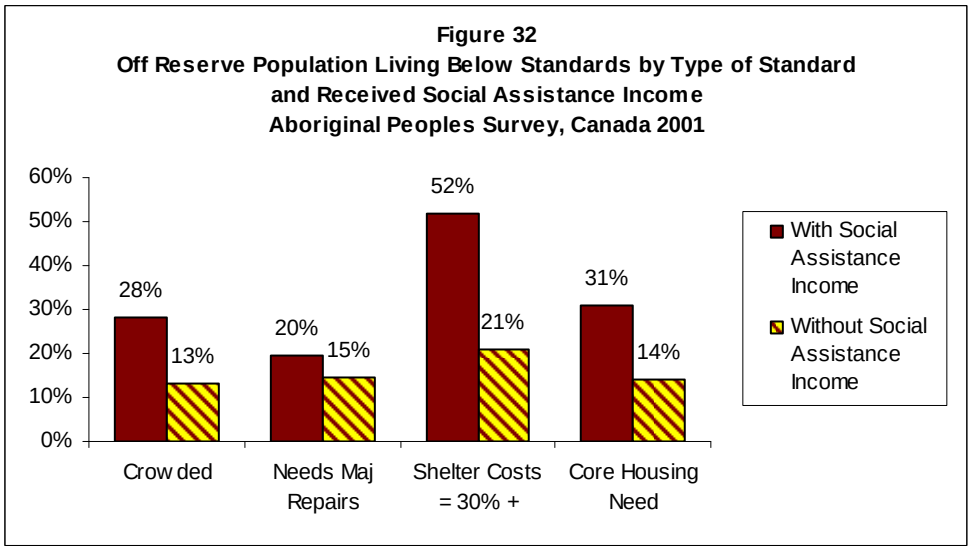


Figure 30
Population Living in Housing that is Crowded or Needs Major Repairs
By On/Off Reserve Location and Received Social Assistance
Aboriginal Peoples Survey, Canada 2001







3.3 Labour Market Activity

Housing conditions are also related to labour market activity. Those who are employed are likely to have higher incomes than others, increasing their ability to afford housing that meets their needs. For example, among the population living on reserves, 29% of those who were employed in 2001 lived in crowded housing, compared to 35% of those who were unemployed and 38% of those who were not participating in the labour market. (See Table 30.) Similarly, 42% of reserve residents who were employed lived in housing in need of major repairs, compared to 55% of those were unemployed and 50% of those who were not in the labour market. There was little difference between men and women, once labour force status was taken into account.

The same relationship was found between labour market status and housing needs off reserves, although levels of need were generally lower. 13% of the employed population living off reserves lived in crowded housing, compared to 20% of those who

were unemployed and 19% of those who were not participating in the labour market. 14% of off-reserve residents who were employed lived in housing in need of major repairs, compared to 18% of those were unemployed and 17% of those who were not in the labour market.

Table 30
Percent of the Population with Housing Needs by On/Off Reserve Residency, Gender and Labour Force Status, Aboriginal Peoples Survey, Canada 2001

Residency, Gender & Labour Force Status	Crowded	Needs Major Repairs	Shelter Costs ≥ 30% of Income	In Core Housing Need
ON RESERVES				
Both Sexes				
Employed	29.2%	41.8%	n.a	n.a
Unemployed	35.0%	55.1%	n.a	n.a
Not in Labour Force	38.3%	50.5%	n.a	n.a
Men				
Employed	29.5%	40.6%	n.a	n.a
Unemployed	34.9%	54.0%	n.a	n.a
Not in Labour Force	37.9%	49.9%	n.a	n.a
Women				
Employed	28.9%	43.1%	n.a	n.a
Unemployed	35.0%	57.4%	n.a	n.a
Not in Labour Force	38.5%	50.9%	n.a	n.a
OFF RESERVES				
Both Sexes				
Employed	12.7%	13.9%	19.1%	13.3%
Unemployed	20.1%	17.6%	33.1%	28.0%
Not in Labour Force	18.7%	17.4%	34.9%	30.0%
Men				
Employed	12.5%	13.8%	16.8%	n.a
Unemployed	20.2%	18.1%	26.9%	n.a
Not in Labour Force	17.4%	17.3%	35.2%	n.a
Women				
Employed	12.9%	14.1%	21.5%	n.a
Unemployed	20.1%	17.0%	40.1%	n.a
Not in Labour Force	19.4%	17.5%	34.7%	n.a

n.a. Data not available.

The association between employment and need criteria was even stronger in the areas of affordability and core housing need. While 19% of the employed population were in households that did not meet the affordability standard, 33% of those who were unemployed and 35% of those who were not participating in the labour market were in households that did not meet the affordability standard. And 13% of off-reserve residents who were employed were in core housing need, compared to 28% of those

were unemployed and 30% of those who were not in the labour market. Again, there was little difference between men and women, and there was little difference between those who were unemployed and those who were not participating in the labour market.

Table 31
Percent of the Population with Housing Needs by On/Off Reserve Residency, Age, Labour Force Status, Aboriginal Peoples Survey, Canada 2001

Age & Labour Force Status	Crowded	Needs Major Repairs	Shelter Costs ≥ 30% of Income	In Core Housing Need
ON RESERVES				
15-24				
Employed	39.3%	37.2%	n.a	n.a
Not Employed*	47.3%	46.4%	n.a	n.a
25-34				
Employed	30.8%	43.1%	n.a	n.a
Not Employed*	38.0%	53.0%	n.a	n.a
35-54				
Employed	27.2%	41.8%	n.a	n.a
Not Employed*	32.3%	56.0%	n.a	n.a
55+				
Employed	17.6%	46.0%	n.a	n.a
Not Employed*	25.4%	53.3%	n.a	n.a
OFF RESERVES				
15-24				
Employed	12.7%	13.9%	19.1%	16.4%
Not Employed*	19.0%	17.5%	34.5%	30.0%
25-34				
Employed	17.1%	13.0%	22.0%	16.3%
Not Employed*	25.4%	17.2%	33.7%	33.9%
35-54				
Employed	14.0%	14.3%	21.4%	10.3%
Not Employed*	25.3%	17.1%	38.7%	31.4%
55+				
Employed	11.0%	13.9%	16.5%	13.1%
Not Employed*	16.5%	20.1%	37.4%	23.4%

* Includes the unemployed and non-participants in the labour market.
n.a. Criterion not available on reserves.

Age was related to both employment and housing needs. Among the population living on reserves, younger age groups experienced more household crowding than older age groups. (Table 31) While 39% of the employed on-reserve population 15-24 years old lived in crowded households, the proportion declined with age such that only 18% of the employed population 55 or older lived in crowded households. A substantially higher proportion of those living on reserves and not employed were in crowded households.

Again, this proportion declined with age, from 47% among the 15-24 year old group to 25% among the 55 or older group.

On the other hand, older populations living on reserves tended to have higher proportions living in housing needing major repairs, compared to younger age groups, but this relationship was inconsistent. Nevertheless, within all age groups living on reserves, those who were employed had lower levels of need than those who were not employed.

Among the off-reserve population there was not a clear association between age and the various need criteria, but again those who were employed consistently had lower levels of need than those who were not employed, regardless of age.

Labour market participation may also be considered in terms of weeks worked over the course of a year. On reserves it was found that both living in crowded households and living in housing that required major repairs were related to number of weeks worked. (See Table 32.) About 39% of on-reserve residents who did not work in the year 2000 lived in crowded households, compared to 26% of those who worked 40 or more weeks of the year. Likewise, 51% of on-reserve residents who did not work in the year 2000 lived in dwellings that needed major repairs, compared to 42% of those who worked 40 or more weeks of the year.

Table 32
Percent of the Population with Housing Needs by On/Off Reserve Residency and Weeks Worked in 2000, Aboriginal Peoples Survey, Canada 2001

Weeks Worked in 2000 (Full Time or Part Time)	Crowded	Needs Major Repairs	Shelter Costs ≥ 30% of Income	In Core Housing Need
On Reserves				
Didn't work in 2000	38.8%	51.2%	n.a	n.a
1-13 weeks	34.9%	47.2%	n.a	n.a
13-26 weeks	31.8%	46.1%	n.a	n.a
27-39 weeks	30.1%	42.2%	n.a	n.a
40-52 weeks	26.4%	42.2%	n.a	n.a
Off Reserves				
Didn't work in 2000	18.9%	17.7%	38.8%	32.7%
1-13 weeks	20.5%	17.6%	30.3%	28.8%
13-26 weeks	19.0%	16.7%	25.5%	20.5%
27-39 weeks	15.1%	17.0%	23.5%	18.1%
40-52 weeks	10.9%	12.8%	15.2%	9.5%

n.a Criterion not available on reserves.

Among the off-reserve population, however, the relationship between weeks worked and either crowded households or housing in need of repairs was not as strong. Still, among those who worked 40 or more weeks relatively low proportions lived in crowded households (11%) or in housing needing major repairs (13%).

The relationship between weeks worked and affordability was much stronger. As the number of weeks worked increased, the proportion who lived in households spending more than 30% of their income on shelter declined, from 39% among those who didn't work, to 15% among those who worked 40 or more weeks. Similarly, the proportion who were experiencing core housing need declined strongly as weeks worked increased, from 33% among those who didn't work, to 10% among those who worked 40 or more weeks.

4. Health

4.1 Health Status and Age

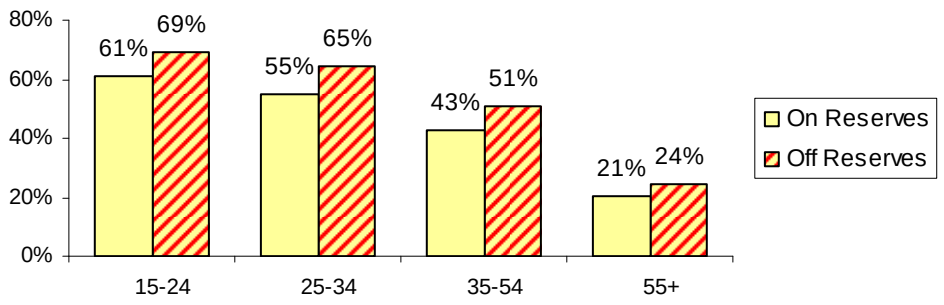
About 48% of Aboriginal people living on reserves, and about 56% of Aboriginal people living off reserves described themselves as having very good or excellent health, while 18% and 17% respectively described their health as fair or poor. (See Table 33.) The proportion of the population in good health declined with age, while the proportion in fair or poor health increased. For those over 55 years old and living on reserves, 45% described their health as fair or poor. Among those 55 or older living off reserves, 42% described their health as fair or poor. (See Figure 34.)

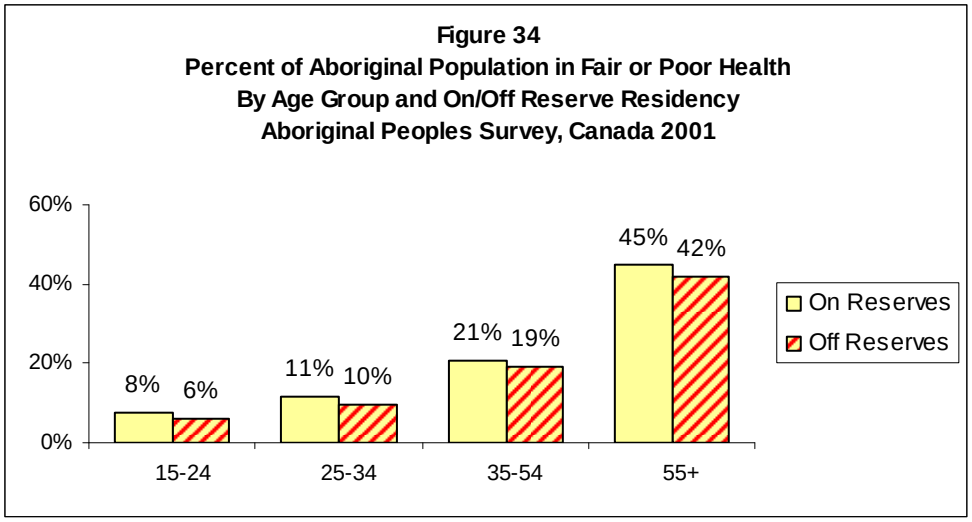
Table 33
Self-Reported Health Status of the Aboriginal Population by Age Group and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

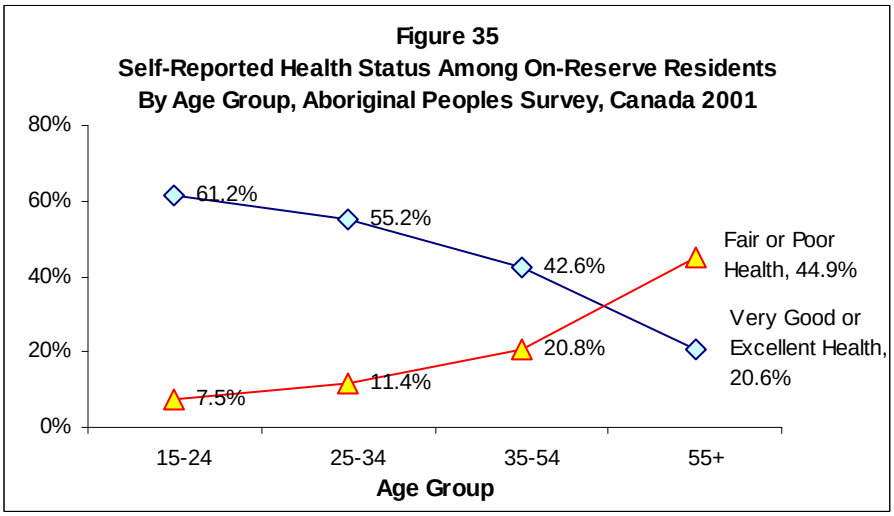
Age Group	On Reserves			Off Reserves*		
	Very Good or Excellent	Good	Fair or Poor	Very Good or Excellent	Good	Fair or Poor
All Ages 15+	**47.5%**	**34.1%**	**18.4%**	**56.3%**	**26.6%**	**17.1%**
15-24	61.2%	31.2%	7.5%	69.4%	24.6%	6.0%
25-34	55.2%	33.3%	11.4%	64.7%	25.7%	9.7%
35-54	42.6%	36.6%	20.8%	50.5%	28.6%	19.3%
55+	20.6%	34.5%	44.9%	24.4%	26.9%	41.7%

* Off reserve percentages for 35-54 and 55+ age groups are estimates based on ratios between age groups.

Figure 33
Percent of Aboriginal Population in Very Good or Excellent Health By Age Group and On/Off Reserve Residency Aboriginal Peoples Survey, Canada 2001







Possible relationships between health status and housing were explored, controlling for age group where possible. Data were not available for the off-reserve population showing age along with health status and other household characteristics, so Table 34 only includes data for the on-reserve population.

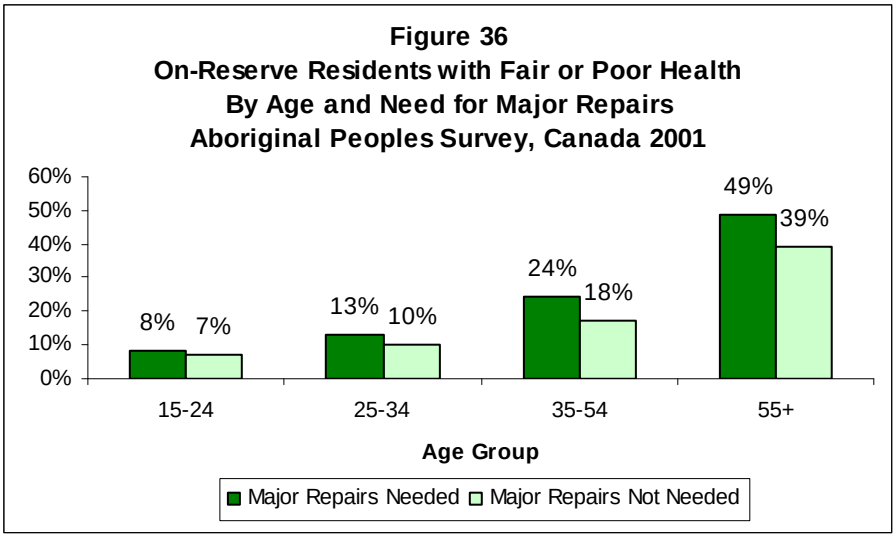
As Table 34 shows, there does not seem to be a consistent relationship between health status and whether or not an individual lives in crowded housing. Among those under the age of 55, a slightly larger percentage of those living in crowded housing say their health is fair or poor, but the differences are very small. Among those over the age of 55 the relationship reverses itself, but again the differences are very small.

However, the association between dwelling condition and health status is stronger and more consistent. The percentage with fair or poor health is consistently higher among those living in housing that needs major repairs compared to those living in housing that doesn't need major repairs. This difference increases with age. Among those in the 15-24 age group, 8% of those living in housing needing major repairs say their health is fair or poor, compared to 7% of those in housing that does not need major repairs, a

difference of one percentage point. This difference increases to nine percentage points among those 55 or older (48.4% compared to 39.7%).

Table 34
Self-Reported Health Status of the Aboriginal Population Living On Reserves
By Age Group, Suitability Standard and Adequacy Standard
Aboriginal Peoples Survey, Canada 2001

Age of Respondent and Need Criteria	Very Good or Excellent	Good	Fair or Poor
Age & Suitability Standard			
15-24			
Crowded	59.8%	32.4%	7.8%
Not Crowded	62.5%	30.3%	7.2%
25-34			
Crowded	52.7%	35.4%	11.9%
Not Crowded	56.6%	32.2%	11.2%
35-54			
Crowded	41.9%	36.0%	22.1%
Not Crowded	42.8%	36.8%	20.4%
55+			
Crowded	22.4%	34.2%	43.5%
Not Crowded	20.0%	34.7%	45.3%
Age & Adequacy Standard			
15-24			
Major repairs needed	57.7%	34.2%	8.1%
Major repairs not needed	63.9%	29.0%	7.1%
25-34			
Major repairs needed	50.5%	36.3%	13.2%
Major repairs not needed	59.6%	30.4%	10.0%
35-54			
Major repairs needed	37.2%	38.5%	24.3%
Major repairs not needed	47.9%	34.6%	17.5%
55+			
Major repairs needed	17.8%	33.5%	48.7%
Major repairs not needed	24.6%	36.0%	39.4%



The relationship between health status and household type was also examined for the on-reserve population, again controlling for age group. (See Table 35.) Among the younger age groups, there was little difference in the self-reported health status of those living in different household types, except that young people, 15-24, living in multiple family households were a little less likely to report very good or excellent health compared to young people in other types of households.

Among reserve residents over the age of 35, those living in non-family households reported worse health than those in couples or other types of families. In the 35-54 age range, 31% of those living in non-family households reported that their health was fair or poor, compared to 19%-23% of those living in other types of households.

Table 35
Self-Reported Health Status of Reserve Residents by Age Group and Household Type, Aboriginal Peoples Survey, Canada 2001

Characteristics	Very Good or Excellent	Good	Fair or Poor
Age & Household Type			
15-24			
Couple households	62.4%	30.6%	7.0%
Lone parent households	63.4%	28.7%	7.9%
Multiple family households	57.6%	34.4%	8.0%
Non-family households	61.7%	29.8%	8.5%
25-34			
Couple households	56.2%	33.1%	10.7%
Lone parent households	52.7%	34.4%	12.9%
Multiple family households	54.3%	32.8%	12.8%
Non-family households	55.2%	33.3%	11.4%
35-54			
Couple households	44.8%	36.5%	18.8%
Lone parent households	43.4%	37.0%	19.6%
Multiple family households	37.8%	38.8%	23.4%
Non-family households	36.0%	32.9%	31.1%
55+			
Couple households	22.7%	35.2%	42.1%
Lone parent households	21.1%	32.4%	46.5%
Multiple family households	19.6%	34.4%	45.9%
Non-family households	16.1%	34.9%	48.9%

4.2 Chronic Health Conditions

The Aboriginal Peoples Survey included questions asking respondents to self-identify a number of chronic health conditions. The chronic health conditions with the highest prevalence on reserves in 2001 were arthritis/rheumatism (15%), high blood pressure (12%), diabetes (11%), stomach and intestinal problems (8%), and asthma (7%). (Table 36) Prevalence of other specific conditions, including heart problems, emphysema, bronchitis and tuberculosis, were lower. All of these health conditions were much higher among those over 55 years old.

Table 36
Prevalence of Selected Health Conditions On Reserves by Various Household Characteristics
Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Arthritis/ Rheumatism	High Blood Pressure	Diabetes	Stomach & Intestinal Problems	Asthma
Total On Reserves	**15.0%**	**12.4%**	**10.7%**	**8.0%**	**7.3%**
Age of Respondent					
15 to 24	2.7%	2.3%	1.5%	3.1%	6.2%
25 to 34	7.6%	5.7%	6.2%	6.1%	6.1%
35 to 54	18.7%	15.3%	13.3%	10.3%	7.2%
55 and over	41.8%	35.8%	29.7%	14.6%	11.3%
Household Type					
Couple households	13.9%	11.8%	10.4%	7.7%	6.6%
Lone parent households	16.4%	10.5%	10.8%	7.9%	8.8%
Multiple family households	12.6%	13.2%	10.0%	7.1%	7.3%
Non-family households	25.3%	18.2%	14.9%	11.9%	8.5%
Tenure & Subsidization					
Renters	**13.1%**	**12.4%**	**12.3%**	**8.2%**	**7.4%**
Subsidized	14.3%	13.4%	9.8%	9.8%	7.8%
On wait list	14.4%	8.4%	10.6%	7.0%	6.8%
Other renters	11.2%	11.6%	11.5%	7.8%	6.9%
Owners	**16.2%**	**12.7%**	**10.6%**	**8.1%**	**7.1%**
Suitability Standard					
Crowded	11.5%	10.4%	9.1%	6.8%	6.6%
Not Crowded	17.4%	14.0%	12.4%	8.8%	8.1%
Adequacy Standard					
Major repairs needed	15.9%	13.3%	10.9%	8.3%	7.9%
Major repairs not needed	15.0%	12.4%	11.5%	8.0%	7.4%

Table 36, Continued
Prevalence of Selected Health Conditions On Reserves by Various Household Characteristics, Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Heart Problems	Emphysema / Shortness of Breath	Chronic Bronchitis	Tuberculosis
Total On Reserves	**5.8%**	**4.0%**	**3.3%**	**2.6%**
Age of Respondent				
15 to 24	1.6%	1.9%	1.8%	0.9%
25 to 34	1.9%	2.1%	2.3%	1.3%
35 to 54	5.1%	3.8%	3.5%	3.2%
55 and over	21.7%	11.4%	7.4%	6.3%
Household Type				
Couple households	5.1%	3.3%	3.1%	2.3%
Lone parent households	6.5%	4.4%	3.7%	2.7%
Multiple family households	5.4%	4.2%	2.8%	2.6%
Non-family households	9.6%	7.4%	5.2%	4.1%
Tenure & Subsidization				
Renters	**5.6%**	**3.9%**	**3.1%**	**2.9%**
Subsidized	6.2%	4.1%	3.2%	2.9%
On wait list	3.8%	4.6%	3.0%	5.4%
Other renters	5.0%	3.5%	2.9%	2.5%
Owners	**6.0%**	**4.0%**	**3.4%**	**2.4%**
Suitability Standard				
Crowded	4.0%	3.6%	2.9%	2.1%
Not Crowded	6.9%	4.3%	3.7%	2.5%
Adequacy Standard				
Major repairs needed	6.0%	4.4%	3.4%	2.4%
Major repairs not needed	5.8%	3.8%	3.4%	2.4%

For most health conditions, those living in non-family households had much higher prevalence than others, while prevalence was usually lowest among those living in couple households or multi-family households. The prevalence of arthritis/rheumatism, high blood pressure, diabetes and stomach or intestinal problems was especially high for those living in non-family households.

Differences between renters and owners in the prevalence of health conditions were small and inconsistent. There were small differences between those living in housing in need of major repairs and others on reserves.

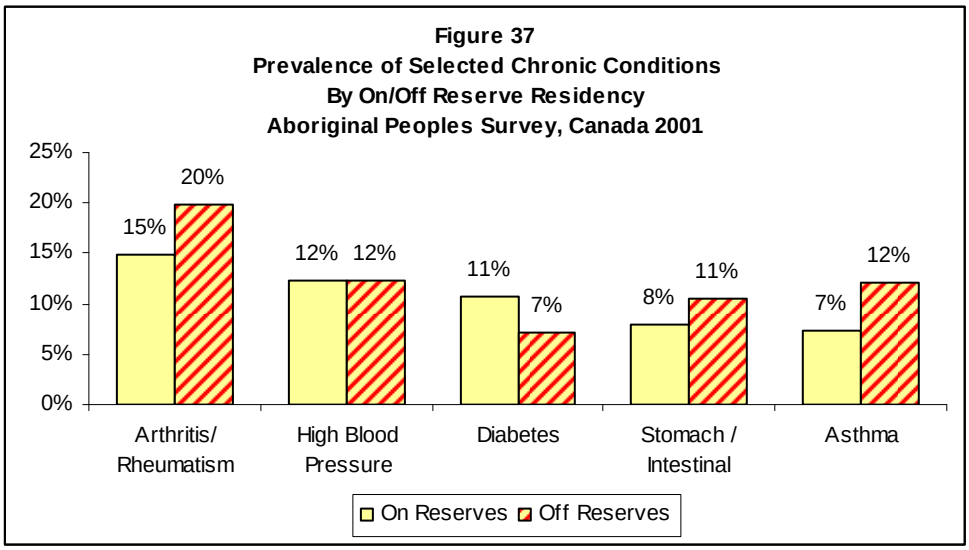
Those living in more crowded housing had lower prevalence rates for all of the chronic conditions examined. However this finding needs to be corrected for age. A relatively high proportion of younger respondents to the APS were living in crowded households. Because younger people tend to have fewer health conditions, this means that the population in crowded households would also tend to have fewer health conditions, to the extent that health is affected by age.

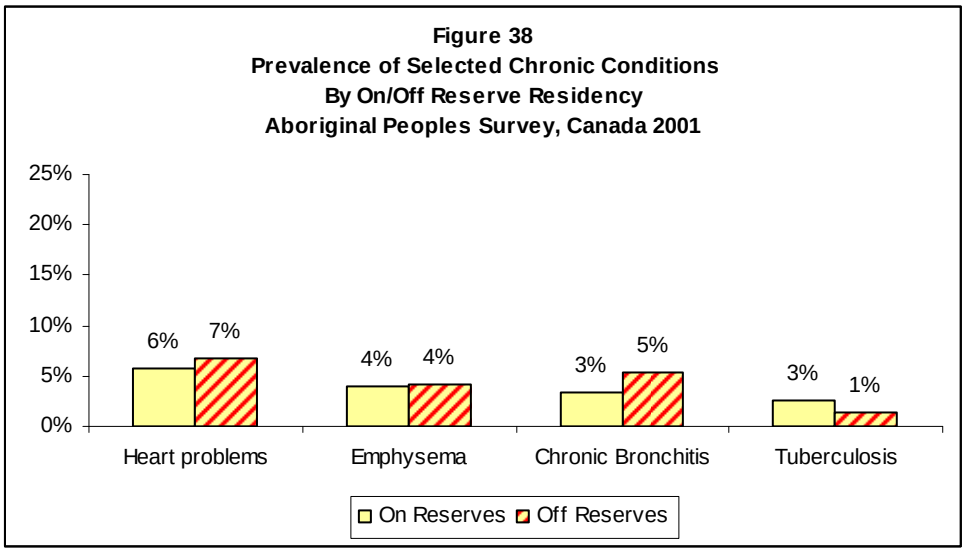
In order to provide a more accurate view of the relationships between suitability and health conditions, Table 37 focuses on the population 55 years old or older living on reserves. For this age group there was little difference in the prevalence rates of those in crowded households and uncrowded households. Those over the age of 55, living in crowded dwellings reported a slightly higher prevalence of emphysema/shortness of breath while those living in uncrowded households reported a higher prevalence of arthritis, heart problems, and chronic bronchitis. (Similar data were not available for the off reserve population.)

Table 37
Prevalence of Selected Health Conditions by Suitability Standard
Aboriginal Population 55 or Older Living On Reserves
Aboriginal Peoples Survey, Canada 2001

Health Condition	Below Standard (crowded)	Above Standard (not crowded)	Total
Arthritis/Rheumatism	39.3%	44.0%	43.0%
High blood pressure	36.8%	36.1%	36.3%
Diabetes	31.8%	31.9%	31.9%
Asthma	11.7%	11.5%	11.6%
Heart problems	20.5%	22.6%	22.1%
Emphysema/Shortness of breath	12.1%	10.8%	11.1%
Chronic Bronchitis	6.7%	7.7%	7.4%
Tuberculosis	4.6%	5.3%	5.1%

The pattern of health conditions off reserves was different from the pattern on reserves. (See Table 38.) The health conditions with the highest prevalence off reserves in 2001 were arthritis/rheumatism (19%), high blood pressure (12%), asthma (12%), and stomach problems (11%). The prevalence of arthritis and asthma were substantially higher off reserves, while the prevalence of diabetes was higher on reserves. (Figures 37 and 38)





The relationships between health conditions and various household characteristics were also somewhat different among the off-reserve Aboriginal population than among the on-reserve population. All of the health conditions examined were much higher among those over 55 years old with the exception of asthma where there was only small differences between age groups.

As was found among the on-reserve population, those living in non-family households had higher prevalence rates for all the chronic health conditions than those living in other household types. And again it was found that those living in crowded households usually had lower prevalence rates for most health conditions than those who did not live in crowded households.

Table 38
Prevalence of Selected Health Conditions Off Reserves by Various Household Characteristics
Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Arthritis/ Rheumatism	High Blood Pressure	Diabetes	Stomach / Intestinal Problems	Asthma
Total Off Reserves	**19.8%**	**12.4%**	**7.2%**	**10.5%**	**12.0%**
Age of Respondent					
15 to 24	3.9%	2.3%	1.0%	5.4%	12.8%
25 to 34	9.2%	5.0%	3.2%	7.5%	10.6%
35 to 54	25.8%	14.5%	8.9%	13.2%	12.1%
55 and over	49.3%	37.0%	20.7%	17.2%	12.9%
Household Type					
Couple households	18.0%	12.0%	6.9%	10.4%	11.6%
Lone parent households	18.1%	10.0%	5.6%	10.4%	14.8%
Multiple family households	18.4%	12.1%	7.1%	9.8%	10.2%
Non-family households	30.5%	17.1%	11.1%	11.5%	10.8%
Tenure & Subsidization					
Rented	**20.1%**	**11.7%**	**8.5%**	**9.5%**	**12.9%**
Subsidized	22.7%	12.0%	14.5%	18.1%	13.1%
On waiting list	24.2%	11.3%	7.8%	11.7%	15.1%
Other Renters	18.8%	11.6%	8.3%	11.3%	12.7%
Owned	**19.8%**	**13.3%**	**6.6%**	**10.0%**	**11.1%**
Suitability Standard					
Crowded	16.0%	9.2%	5.8%	8.5%	11.0%
Not Crowded	20.4%	12.9%	7.5%	10.9%	12.3%
Adequacy Standard					
Major repairs needed	22.8%	12.2%	7.8%	12.8%	14.8%
Major repairs not needed	19.2%	12.4%	7.2%	10.2%	11.6%
Affordability Standard					
Shelter ≥ 30% of Income	23.9%	12.9%	9.0%	12.9%	13.3%
Shelter < 30% of Income	18.4%	12.2%	6.7%	9.8%	11.7%
Core Housing Need					
Below standards	22.7%	12.0%	8.9%	11.8%	14.2%
Above standards	19.0%	12.5%	6.9%	10.3%	11.6%

Table 38, Continued
Prevalence of Selected Health Conditions Off Reserves by Various Household Characteristics
Aboriginal Peoples Survey, Canada 2001

Household Characteristic	Heart Problems	Emphysema / Shortness of Breath	Chronic Bronchitis	Tuberculosis
Total Off Reserves	**6.7%**	**4.2%**	**5.4%**	**1.4%**
Age of Respondent				
15 to 24	1.8%	1.8%	2.4%	0.2%
25 to 34	2.6%	2.3%	3.5%	0.6%
35 to 54	7.3%	4.4%	6.7%	1.7%
55 and over	21.1%	11.6%	10.5%	4.0%
Household Type				
Couple households	6.0%	3.8%	4.7%	1.1%
Lone parent households	5.9%	4.1%	6.2%	1.7%
Multiple family households	8.4%	4.8%	4.4%	1.8%
Non-family households	10.5%	5.9%	7.7%	2.0%
Tenure & Subsidization				
Rented	**6.8%**	**5.0%**	**6.3%**	**1.9%**
Subsidized	7.8%	5.5%	6.6%	2.5%
On waiting list	7.1%	10.8%	12.0%	4.4%
Other Renters	6.3%	4.5%	5.9%	1.5%
Owned	**7.0%**	**3.7%**	**4.5%**	**0.9%**
Suitability Standard				
Crowded	7.0%	3.9%	5.2%	1.5%
Not Crowded	6.7%	4.3%	5.5%	1.4%
Adequacy Standard				
Major repairs needed	8.2%	5.0%	7.0%	1.6%
Major repairs not needed	6.5%	4.2%	5.2%	1.3%
Affordability Standard				
Shelter ≥ 30% of Income	8.1%	5.7%	6.4%	1.8%
Shelter < 30% of Income	6.3%	3.8%	5.1%	1.2%
Core Housing Need				
Below standards	8.0%	5.7%	7.5%	1.7%
Above standards	6.5%	3.9%	5.0%	1.3%

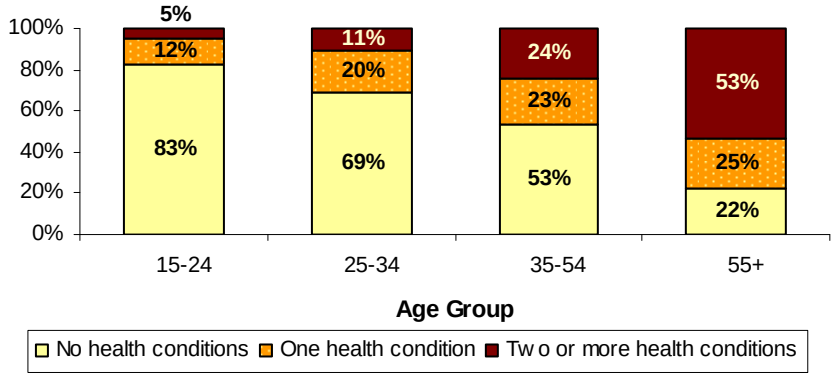
Among the off-reserve population there was no consistent relationship between tenure and prevalence of health conditions. Among those living in housing that needed major repairs, the prevalence of most conditions was higher than among those living in adequate housing.

The relationship between affordability and health conditions was consistent: those living in affordable housing consistently had lower prevalence rates than those in unaffordable housing. Similarly those who were not in core housing need had lower prevalence rates for all the health conditions except high blood pressure. The differences in prevalence rates between those with various measures of need were greatest for arthritis/ rheumatism. For example, 23% of those in core need reported arthritis/rheumatism, compared to 19% of those who were not in core need.

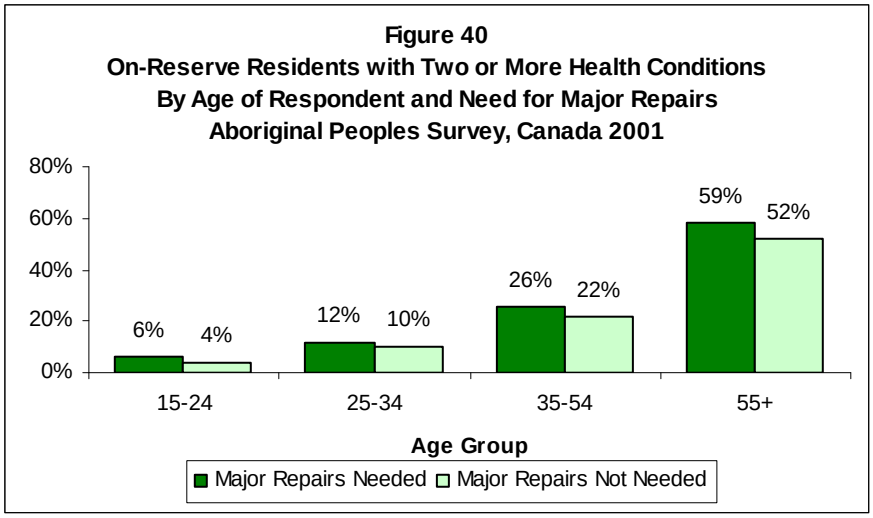
4.2 Number of Health Conditions

Another way of gauging health is to look at the total number of reported health conditions per person. Among the younger age groups living on reserves, only a small percentage had more than one health condition in 2001. (See Figure 39.) Among those 35-54 years old, however, 24% had two or more health conditions, and more than half (53%) of those over the age of 55 had two or more health conditions.

Figure 39
On-Reserve Residents by Age Group and Number of Chronic Health Conditions, Aboriginal Peoples Survey, Canada 2001



As noted above, those living on reserves in housing that needed major repairs consistently had slightly higher prevalence rates than others, for all the health conditions examined. The same pattern was found between number of health conditions and adequacy of housing. Among on-reserve residents living in housing needing major repairs, the percentages with two or more health conditions were slightly higher than among those living in housing that didn't need major repairs. This held true for all age groups. (See Figure 40.)



No data was available concerning number of health conditions off reserves.

4.3 Activity Limitation and Need for Special Features

The APS included two questions concerning activity limitations of the respondent, as well as a question asking if anyone in the household needed special housing features to accommodate them. The special features were not specified in the initial question, but in the next question several such features were identified, including door and hallway modifications, and bathroom and kitchen modifications. While these questions were related it should be kept in mind that the questions on activity limitations concerned the individual respondent, while the questions on the need for special features used the wording "you or anyone in your household."

As would be expected there was a strong relationship between the need for special features and activity limitations of the respondent. Higher percentages of respondents who said they experienced activity limitations also reported that someone in the household needed special features. This held true for all age groups.

About 12% of the Aboriginal population on reserves and about 6% of the Aboriginal population off reserves lived in households where someone needed one or more special features for those with disabilities. (See Table 39.) Where respondents were older these percentages were higher. Among respondents over the age of 55, 26% of those on reserves and 12% of those off reserves lived in households where someone needed one or more special features. (See Figure 41.)

Where dwellings were in need of major repairs the percentage reporting that someone needed special features was higher than in dwellings that did not need major repairs. This was especially true for older respondents living on reserves. Among on-reserve respondents over 55, 32% of those living in dwellings needing major repairs reported that someone needed special features, while only 20% of those in households where major repairs were not needed reported that someone needed special features. This suggests that those with greater need for housing modifications tend to live in housing that is not as well maintained.

Higher percentages of those living in multiple family households, compared to those living in other types of households, reported that someone in the household needed special features. This was especially true among those living on reserves. As well, higher percentages of those living in lone parent households reported that someone needed special features, compared to couple or non-family households.

Table 39
Percentage of Population in Households Where Someone Needs Special Features by Respondent's Age, On/Off Reserve Residency and Selected Household Characteristics, Aboriginal Peoples Survey, Canada 2001

Respondent/Household Characteristics	On Reserves	Off Reserves
All Ages 15+	**11.6%**	**5.8%**
15-24	8.8%	3.6%
25-34	7.8%	4.4%
35-54	10.5%	5.8%
55+	25.9%	12.0%
Respondent's Age and Housing Adequacy		
15-24		
Needs Major Repairs	11.4%	6.4%
Doesn't Need Major Repairs	7.0%	3.1%
25-34		
Needs Major Repairs	10.0%	6.7%
Doesn't Need Major Repairs	5.8%	3.9%
35-54		
Needs Major Repairs	13.4%	9.5%
Doesn't Need Major Repairs	8.1%	5.2%
55+		
Needs Major Repairs	32.1%	11.7%
Doesn't Need Major Repairs	20.1%	11.6%
Respondent's Age and Household Type		
15-24		
Couples	7.4%	2.8%
Lone parents	9.4%	4.5%
Multiple families	11.1%	4.4%
Non-families	4.5%	5.0%
25-34		
Couples	6.7%	4.2%
Lone parents	7.0%	5.9%
Multiple families	14.4%	7.5%
Non-families	4.1%	2.1%
35-54		
Couples	8.3%	5.0%
Lone parents	14.2%	6.9%
Multiple families	15.4%	7.0%
Non-families	9.2%	8.3%
55+		
Couples	24.9%	11.7%
Lone parents	27.0%	16.9%
Multiple families	30.1%	11.4%
Non-families	22.3%	11.2%

Figure 41
Percent of Population Living in Households Where Someone Needs Special Features by Age of Respondent and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

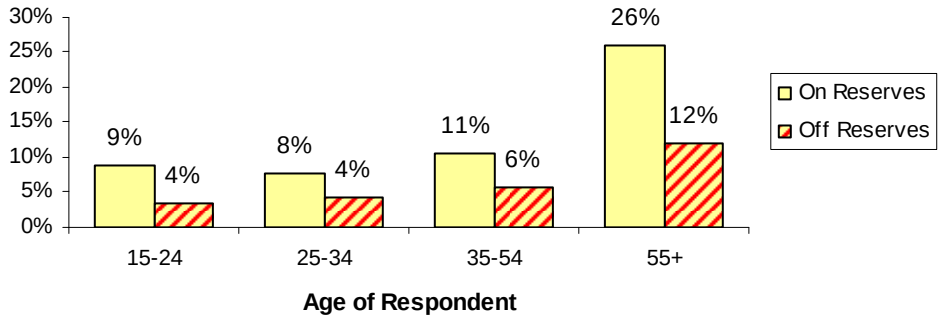


Table 40
Frequency of Activity Limitation or Difficulty, On and Off Reserves
By Age, Aboriginal Identity, and Whether Someone in Household Needs Any Special Features
Aboriginal Peoples Survey, Canada 2001

Respondent & Household Characteristics	On Reserves Frequency of Activity			Off Reserves Frequency of Activity		
	No Difficulty	Some-times	Often	No Difficulty	Some-times	Often
All Respondents	**69.9%**	**17.7%**	**12.4%**	**65.2%**	**17.3%**	**17.5%**
Respondent's Age						
15-24	83.1%	11.5%	5.4%	80.1%	11.5%	8.3%
25-34	79.5%	13.5%	7.0%	74.6%	14.4%	11.0%
35-54	67.8%	19.7%	12.4%	59.7%	19.8%	20.6%
55+	33.8%	31.3%	34.9%	38.6%	25.4%	36.1%
Aboriginal Identity						
Registered Indian	69.8%	17.7%	12.4%	66.6%	16.6%	16.7%
Non-Status Indian	67.3%	17.8%	14.9%	60.2%	18.9%	20.9%
Total First Nations	69.8%	17.7%	12.5%	64.3%	17.5%	18.3%
Métis	73.8%	13.8%	12.3%	65.8%	17.3%	16.9%
Inuit	***	***	***	70.9%	15.3%	13.8%
Respondent's Age & Whether Someone in Household Needs Any Special Features						
15-24						
Someone needs features	68.3%	18.6%	13.2%	71.5%	13.5%	15.1%
No one needs features	84.4%	10.9%	4.7%	80.6%	11.3%	8.1%
25-34						
Someone needs features	65.0%	20.8%	14.2%	46.1%	22.0%	31.9%
No one needs features	80.9%	13.0%	6.1%	76.0%	13.9%	10.1%
35-54						
Someone needs features	42.9%	23.0%	34.1%	31.5%	13.5%	55.0%
No one needs features	70.7%	19.3%	10.0%	61.8%	19.9%	18.3%
55+						
Someone needs features	13.8%	27.3%	58.8%	10.4%	16.0%	73.6%
No one needs features	40.7%	32.9%	26.4%	42.6%	26.6%	30.8%

*** Data suppressed because of small counts.

A higher percentage of those living off reserves were reported to have frequent activity limitations (18%), compared to those living on reserves (12%). (See Table 40.) This is in contrast to the finding above that there is a greater need for special features on reserves than off reserves. Again, the proportions who said they often experience activity limitations were higher among older respondents, both on reserves and off reserves. Among the oldest age group, those 55 or older, the proportions reporting frequent

activity limitations were similar among the on-reserve (35%) and off-reserve (36%) populations. Among younger age groups, however, the proportions reporting frequent activity limitations were higher among the off-reserve population compared to the on-reserve population. In both locations, a majority of the population over 55 years old reported that they sometimes or often experience activity limitations.

There was little difference among Aboriginal identity groups in the frequency of activity limitations. As would be expected there was a strong relationship between the need for special features and activity limitations of the respondent. Higher percentages of respondents who reported that someone in the household needed special features also reported that they experienced activity limitations. This held true for all age groups.

Figure 42
Activity Limitations of the Aboriginal Population Living On Reserves, by Age
Aboriginal Peoples Survey, Canada 2001

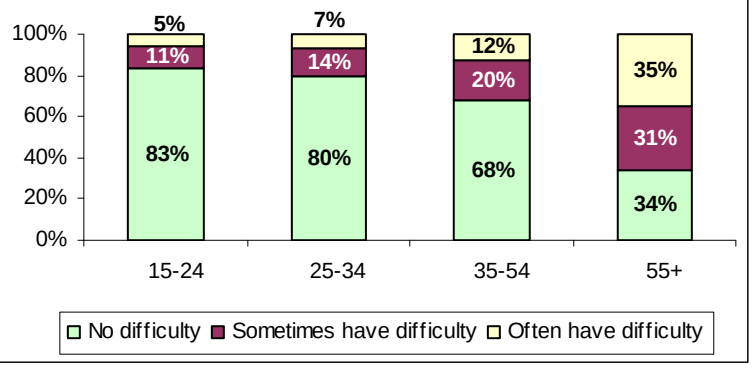
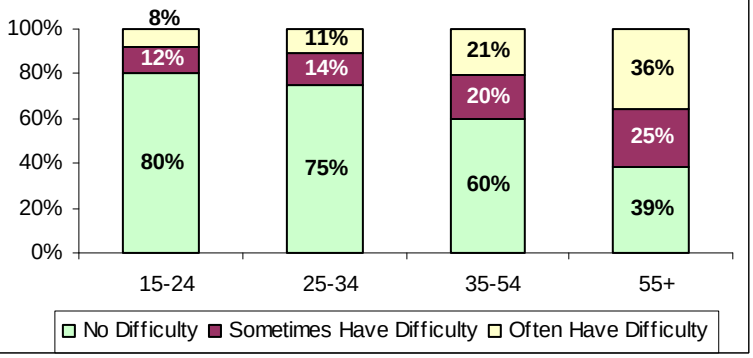


Figure 43
Activity Limitations of the Aboriginal Population Living Off Reserves by Age,
Aboriginal Peoples Survey, Canada 2001



No strong relationship was found between activity limitations and household type or the need for major repairs. (See Table 41.) There was a tendency for those living in couple households to report fewer activity limitations, but the differences among household types were small and inconsistent. Among those living on reserves in housing that needed major repairs, a higher percentage reported that they “often” had activity

limitations, compared to those in adequate housing. This relationship was not present off reserves.

Table 41
Frequency of Activity Limitation or Difficulty
By On/Off Reserve Residency, Age and Selected Household Characteristics
Aboriginal Peoples Survey, Canada 2001

Respondent Age & Household Characteristics	On Reserves Frequency of Activity Limitation			Off Reserves Frequency of Activity Limitation		
	No Difficulty	Some-times	Often	No Difficulty	Some-times	Often
Age & Household Type						
15-24						
Couples	82.7%	11.7%	5.2%	81.0%	11.1%	7.9%
Lone parents	81.6%	11.2%	5.7%	77.1%	13.1%	9.8%
Multiple family	82.6%	10.9%	5.5%	81.1%	11.0%	7.9%
Non-family	80.9%	14.9%	4.3%	83.7%	10.0%	6.3%
25-34						
Couples	79.2%	13.3%	6.5%	77.1%	13.7%	9.2%
Lone parents	77.9%	14.9%	7.2%	72.5%	15.0%	12.5%
Multiple family	79.6%	12.8%	7.5%	64.9%	16.2%	18.9%
Non-family	79.0%	12.4%	8.6%	69.4%	16.1%	14.5%
35-54						
Couples	69.6%	18.3%	11.0%	63.0%	19.1%	17.9%
Lone parents	65.9%	19.4%	13.2%	56.3%	20.7%	23.1%
Multiple family	63.9%	20.4%	14.4%	61.3%	18.3%	20.4%
Non-family	58.3%	25.4%	14.9%	47.3%	22.5%	30.3%
55+						
Couples	38.8%	28.2%	31.7%	41.4%	25.2%	33.3%
Lone parents	27.9%	34.4%	37.7%	27.6%	26.1%	46.3%
Multiple family	33.0%	31.1%	35.9%	35.5%	30.2%	34.2%
Non-family	27.3%	35.0%	37.7%	37.6%	24.5%	37.8%
Age & Need for Major Repairs						
15-24						
Repairs needed	79.2%	14.3%	5.9%	80.1%	8.4%	11.5%
Repairs not needed	85.4%	9.2%	4.9%	80.5%	7.7%	11.8%
25-34						
Repairs needed	75.8%	15.9%	8.2%	76.1%	10.2%	13.7%
Repairs not needed	82.6%	11.2%	5.4%	73.3%	12.0%	14.7%
35-54						
Repairs needed	63.7%	21.6%	14.3%	60.7%	19.7%	19.6%
Repairs not needed	70.7%	17.6%	10.9%	58.7%	19.7%	21.5%
55+						
Repairs needed	31.2%	28.8%	40.0%	39.9%	35.3%	24.8%
Repairs not needed	36.3%	32.8%	29.8%	30.8%	44.9%	24.3%

5. Education

Educational attainment may be related to housing in several ways. Many research studies have shown that those with higher levels of education are more likely to be employed and to have higher incomes than those with lower levels of education. Those with higher incomes, in turn, can afford better housing and are less likely to experience problems with affordability, adequacy and suitability. In this sense, educational attainment is a factor influencing housing characteristics.

On the other hand, housing characteristics may influence the educational success of children and youth. For example, those living in crowded households may lack space or quiet time for studying and may, therefore, have more difficulty completing their school assignments. Poor housing may also affect children's health which, in turn, may affect their educational performance. This section of the study will first look at educational attainment, measured as the highest level of schooling completed, and then at elementary-secondary and post-secondary enrolment rates. Possible links between housing characteristics and educational characteristics will be identified, focusing on the youth population, ages 15-24.

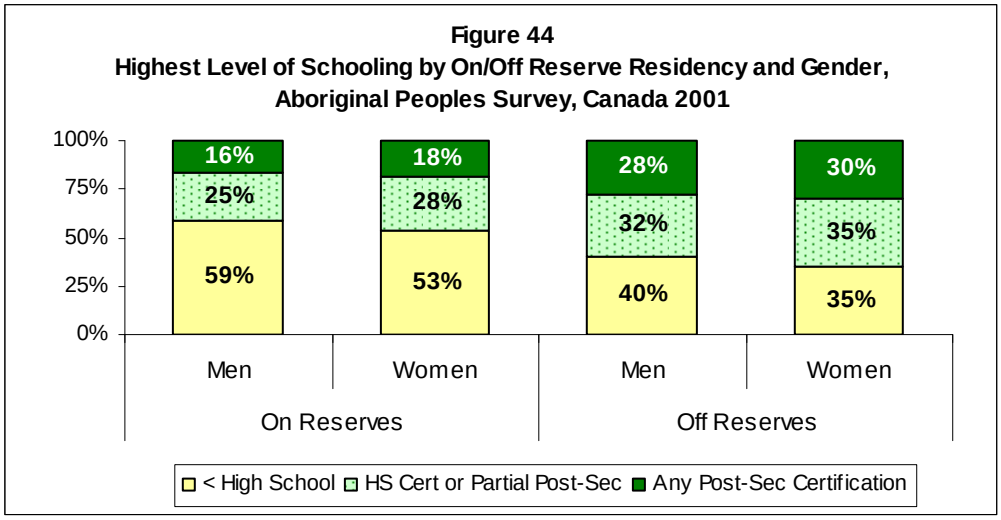
5.1 Highest Level of Schooling

This study looks at six levels of educational attainment that can be identified from the APS. (See Table 42.) The six levels are assumed to be hierarchical, with individuals normally completing high school before proceeding with post-secondary education (although we know that this is not always the case). In this study post-secondary education refers to a broad range of public and private college, technical and university credit programs that are normally pursued after secondary school. Post-secondary certification may include a certificate, diploma or degree granted by any of these institutions.

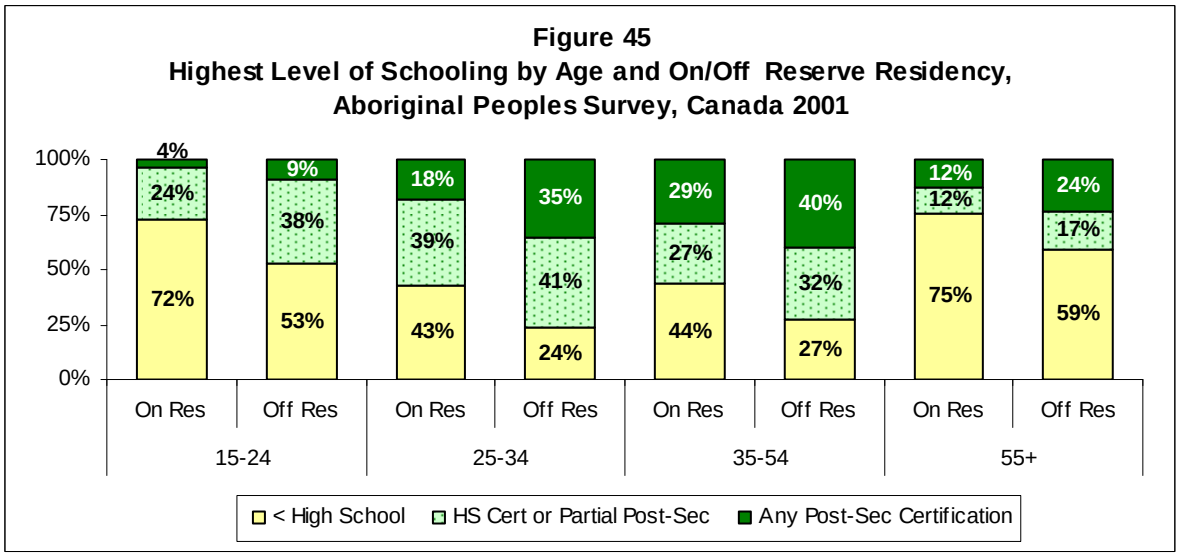
Based on the 2001 APS, the majority (56%) of the Aboriginal respondents had not completed high school or any post-secondary education. The majority (63%) of the Aboriginal population living off reserves, however, had completed high school or a higher educational level, such as partial completion or graduation from a post-secondary program. Higher proportions of women than men had completed high school or some level of post-secondary education, both on reserves where 47% of women had this level of education compared to 41% of men, and off reserves where 65% of women had achieved this level compared to 60% of men. (See Figure 44.)

Table 42
Highest Level of Schooling of the Aboriginal Population On and Off Reserves
By Gender and Age Group, Aboriginal Peoples Survey, Canada 2001

Gender & Age Group	No Schooling	< High School Certificate	High School Certificate	Partial Post-Sec	Post-Sec Cert or Diploma	B.A. or Higher	Total
ON RESERVES							
Both Sexes	**2.4%**	**53.7%**	**8.9%**	**17.7%**	**14.9%**	**2.4%**	**100.0%**
15-24	0.2%	72.2%	10.0%	13.7%	3.8%	0.2%	100.0%
25-34	0.1%	42.6%	12.7%	26.2%	16.2%	2.1%	100.0%
35-54	0.7%	43.0%	7.4%	19.4%	24.9%	4.6%	100.0%
55+	14.4%	61.0%	4.1%	8.1%	10.7%	1.7%	100.0%
Men	**2.2%**	**56.8%**	**8.4%**	**16.5%**	**14.7%**	**1.4%**	**100.0%**
15-24	0.3%	75.2%	9.3%	11.0%	4.1%	0.1%	100.0%
25-34	0.2%	46.5%	13.0%	23.8%	15.3%	1.2%	100.0%
35-54	0.8%	46.5%	6.5%	19.2%	24.1%	3.0%	100.0%
55+	13.2%	61.9%	4.0%	9.0%	11.7%	0.2%	100.0%
Women	**2.6%**	**50.7%**	**9.4%**	**18.9%**	**15.1%**	**3.3%**	**100.0%**
15-24	0.1%	69.1%	10.7%	16.4%	3.4%	0.3%	100.0%
25-34	0.1%	39.0%	12.6%	28.3%	17.1%	2.9%	100.0%
35-54	0.6%	39.4%	8.5%	19.6%	25.6%	6.2%	100.0%
55+	15.5%	60.2%	4.2%	7.3%	9.8%	3.1%	100.0%
OFF RESERVES							
Both Sexes	**1.3%**	**36.0%**	**14.9%**	**18.7%**	**24.0%**	**5.2%**	**100.0%**
15-24	0.2%	52.4%	18.0%	20.0%	8.0%	1.4%	100.0%
25-34	0.4%	23.7%	15.5%	25.3%	28.1%	7.0%	100.0%
35-54	0.4%	27.0%	14.8%	17.6%	33.2%	6.9%	100.0%
55+	7.2%	52.3%	8.3%	8.2%	19.5%	4.5%	100.0%
Men	**1.4%**	**38.6%**	**15.5%**	**16.2%**	**23.8%**	**4.4%**	**100.0%**
15-24	0.2%	54.4%	18.6%	17.5%	8.0%	1.2%	100.0%
25-34	0.6%	26.7%	17.2%	23.4%	27.5%	4.7%	100.0%
35-54	0.5%	30.5%	15.1%	14.5%	33.5%	5.9%	100.0%
55+	7.4%	50.0%	8.5%	7.8%	20.8%	5.6%	100.0%
Women	**1.2%**	**33.7%**	**14.3%**	**20.8%**	**24.1%**	**6.0%**	**100.0%**
15-24	0.1%	50.4%	17.4%	22.5%	8.0%	1.6%	100.0%
25-34	0.2%	21.2%	14.2%	26.9%	28.6%	8.9%	100.0%
35-54	0.4%	24.0%	14.6%	20.3%	32.9%	7.8%	100.0%
55+	7.1%	54.2%	8.1%	8.6%	18.5%	3.5%	100.0%



Educational attainment is related to age in two ways. Over the years, educational attainment levels among the Aboriginal population have increased, such that each age cohort tends to achieve higher levels of attainment than previous cohorts. At the same time, individuals increase their educational attainment over a number of years and may not reach their highest level of attainment until they are middle-aged. Both of these factors are reflected in the attainment data. The youngest (15-24) and oldest (55+) age groups had lower levels of attainment than did the two middle age groups (25-34 and 35-54), both on and off reserves. The highest level of attainment was found among the 35-54 year-old population. Among this age group 29% of those living on reserves and 40% of those living off reserves had completed some type of post-secondary certification (certificate, diploma or degree). (See Figure 45.)



Those living in couple households, or in non-family households, tended to have higher levels of education than those living in lone parent or multiple family households, both

on and off reserves. (See Table 43.) On reserves, 65% of those living in multiple family households had not completed high school, while only 12% had completed post-secondary certification. Among those living in couple households on reserves, 53% had not completed high school, while 19% had completed post-secondary certification.

Off reserves, the educational differences between household types were even larger. Among those living in multiple family households off reserves, 54% had not completed high school, while 20% had completed post-secondary certification. Among those living in couple households off reserves, 35% had not completed high school, 32% had completed post-secondary certification.

Table 43
Highest Level of Schooling by On/Off Reserve Residency and Various Household Characteristics, Aboriginal Peoples Survey, Canada 2001

Residency and Household Characteristic	Less Than High School Completion	High School Certificate or Partial Post-Secondary	Post-Secondary Certification	Total
On Reserve Residents				
Household Type				
Couples	52.7%	28.2%	19.2%	**100.0%**
Lone Parents	57.3%	26.1%	16.6%	**100.0%**
Multiple Family	64.9%	23.0%	12.1%	**100.0%**
Non-Family	55.0%	26.0%	19.0%	**100.0%**
Tenure				
Rented	54.9%	27.8%	17.2%	**100.0%**
Owned	55.4%	26.2%	18.3%	**100.0%**
Suitability				
Crowded	39.7%	33.8%	26.5%	**100.0%**
Not Crowded	30.6%	33.1%	36.3%	**100.0%**
Adequacy				
Major Repairs Needed	59.0%	25.4%	15.6%	**100.0%**
Major Repairs Not Needed	53.0%	27.7%	19.3%	**100.0%**
Off Reserve Residents*				
Household Type				
Couples	34.8%	33.5%	31.7%	**100.0%**
Lone Parents	41.6%	36.1%	22.3%	**100.0%**
Multiple Family	53.5%	26.8%	19.7%	**100.0%**
Non-Family	35.6%	32.8%	31.6%	**100.0%**
Tenure				
Rented	41.4%	34.0%	24.6%	**100.0%**
Owned	33.0%	33.1%	33.9%	**100.0%**

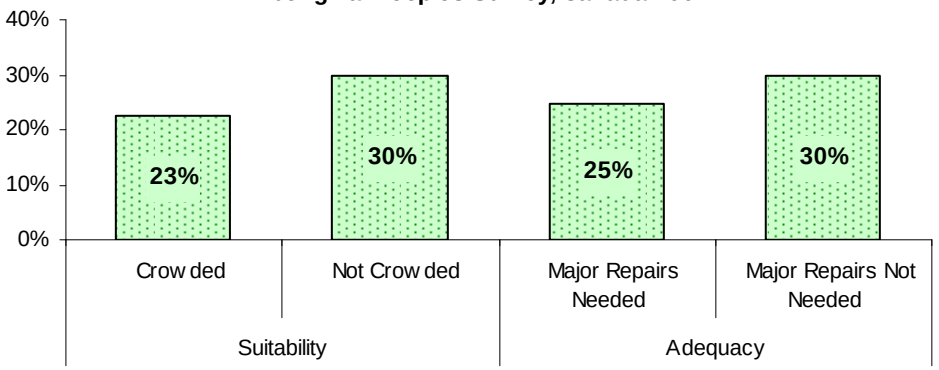
* Data on Highest Level of Schooling by Suitability and Adequacy not available for the off-reserve population.

On reserves there was little difference in educational attainment between those living in rented housing and those living in owner-occupied housing. However, among the off-reserve population, those in rented housing had lower educational attainment than those in owner-occupied housing. 41% of those in renter households had not completed high school, compared to 33% of those in owner households.

Household crowding on reserves was related to educational levels. About 40% of those in crowded households had less than high school completion, and 27% had post-secondary certification, while among those in households that were not crowded 31% had less than high school completion and 37% had post-secondary certification. Educational attainment was also related to household adequacy on reserves. Those living in housing that needed major repairs had lower levels of educational attainment than those living in housing that did not need major repairs. (Corresponding data concerning the off-reserve population were not available.)

In order to focus on the population whose education might be most directly affected by housing characteristics, the educational attainment of youth 15-24 years old and living on reserves was examined. (See Figure 46.) It was found that among young people living in crowded housing, fewer (23%) had completed high school or higher levels of education compared to those living in uncrowded housing (30%). Similarly, 25% of youth on reserves who lived in housing requiring major repairs had completed high school, compared to 30% of youth in housing where major repairs were not needed.

Figure 46
On-Reserve Population 15-24 with High School Certificate or Higher Level of Schooling by Housing Suitability and Adequacy
Aboriginal Peoples Survey, Canada 2001



5.2 School Attendance & Enrolment Rates

The 2001 APS included questions concerning attendance at the elementary-secondary school level and at the post-secondary level. Both full-time and part-time attendance were identified. These have been converted to enrolment rates by dividing the number who were attending by the total population. The elementary-secondary and post-secondary rates may be added together to arrive at a total enrolment rate for all levels of education.

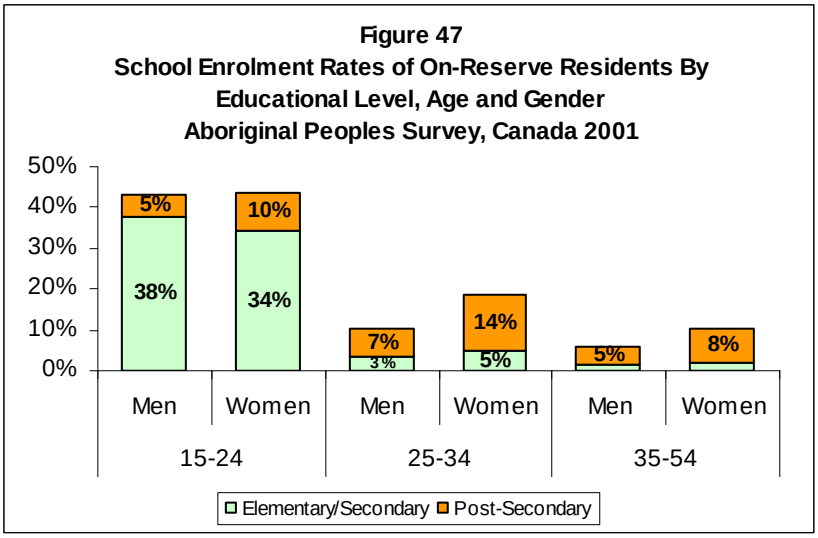
On reserves, elementary-secondary enrolment was highest (36%) for the 15-24 age group, declining quickly for older age groups. (See Table 44.) Elementary-secondary enrolment rates were higher among men living on reserves than among women. Among the 15-24 age group, 38% of men were attending at this level, compared to 34% of women. Among older age groups, however, women had higher enrolment rates.

Post-secondary enrolment rates on reserves were highest among the 25-34 age group, and were higher among women than among men. Within the 25-34 age group, the post-secondary enrolment rate of women was about 14%, double the rate of men (7%) in the same age group. Post-secondary enrolment rates among the 35-54 age group were lower than among younger ages, only slightly lower than among the 15-24 age group.

When the elementary-secondary and post-secondary enrolment rates were added together, the totals were very similar for men and women in the 15-24 age group, while among older age groups the total enrolment rate of women living on reserves was higher than among men. The difference was greatest for the 25-34 age group, with about 19% of women in this age group attending school at some level, compared to 10% of men. The overall tendency, therefore, was for more women living on reserves to attend school, and for them to attend at a higher level, compared to men. (See Figure 47.)

Table 44
School Enrolment Rates Among On-Reserve Residents
By Educational Level, Age and Gender, Aboriginal Peoples Survey, Canada 2001

Gender and Full-Time/Part-Time Attendance	15-24	25-34	35-54	55+	All Ages
Elementary/Secondary Enrolment Rates					
Men					
Part Time	35.3%	2.4%	0.5%	0.4%	10.7%
Full Time	2.6%	1.0%	0.7%	0.2%	1.2%
Total	37.9%	3.4%	1.3%	0.6%	12.0%
Women					
Part Time	31.6%	3.3%	1.2%	0.2%	10.0%
Full Time	2.7%	1.7%	1.0%	0.0%	1.5%
Total	34.3%	5.0%	2.1%	0.2%	11.4%
Both Sexes					
Part Time	33.4%	2.9%	0.8%	0.3%	10.3%
Full Time	2.6%	1.3%	0.8%	0.1%	1.4%
Total	36.1%	4.2%	1.7%	0.4%	11.7%
Post-Secondary Enrolment Rates					
Men					
Full Time	4.5%	4.7%	2.3%	0.4%	3.2%
Part Time	0.9%	1.9%	2.5%	0.0%	1.6%
Total	5.4%	6.6%	4.8%	0.4%	4.7%
Women					
Part Time	8.1%	8.8%	3.6%	0.2%	5.5%
Full Time	1.4%	4.8%	4.6%	0.6%	3.1%
Total	9.5%	13.6%	8.2%	0.7%	8.7%
Both Sexes					
Part Time	6.3%	6.8%	2.9%	0.3%	4.4%
Full Time	1.1%	3.4%	3.5%	0.4%	2.4%
Total	7.4%	10.2%	6.4%	0.7%	6.7%
Total Enrolment Rates – All Educational Levels					
Men					
Full Time	39.8%	7.1%	2.8%	0.8%	13.9%
Part Time	3.5%	2.9%	3.2%	0.2%	2.8%
Total	43.2%	10.1%	6.1%	1.0%	16.7%
Women					
Part Time	39.7%	12.1%	4.7%	0.4%	15.5%
Full Time	4.1%	6.4%	5.6%	0.6%	4.6%
Total	43.8%	18.5%	10.3%	0.9%	20.1%
Both Sexes					
Part Time	39.7%	9.7%	3.7%	0.6%	14.7%
Full Time	3.8%	4.7%	4.4%	0.5%	3.7%
Total	43.5%	14.4%	8.1%	1.1%	18.4%



Off-reserve elementary-secondary enrolment rates were lower than those on reserves for all age and gender groups. (See Table 45.) As with the on-reserve population, Aboriginal women living off reserves had lower elementary-secondary enrolment rates, and higher post-secondary enrolment rates, than men. 33% of off-reserve men in the 15-24 age group were attending at the elementary-secondary level, compared to 30% of off-reserve women in this age group. Conversely, 16% of off-reserve women in the 15-24 age group were attending at the post-secondary level compared to 13% of off-reserve men in this age group. As was found for the on-reserve population, enrolment rates of women off reserves were higher than those of men for the 25-34 and 35-54 age groups, regardless of educational level.

There was little difference between Aboriginal men and women in the 15-24 age group living off reserves in overall enrolment rates, but among those in the 25-34 and 35-54 age groups, women had higher enrolment rates. Therefore, the overall tendency was similar to the tendency on reserves, with more women attending school at a higher level compared to men. (See Figure 48.)

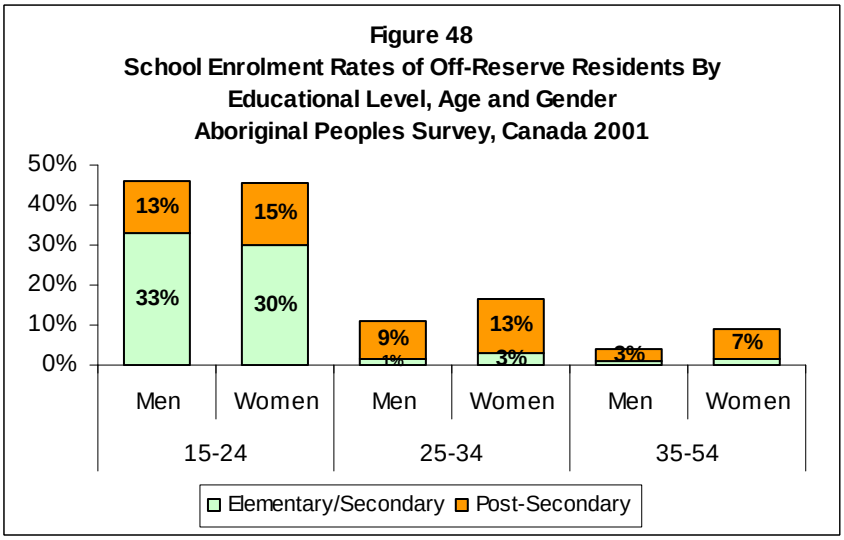


Table 45
School Enrolment Rates Among Off-Reserve Residents
By Educational Level, Age and Gender, Aboriginal Peoples Survey, Canada 2001

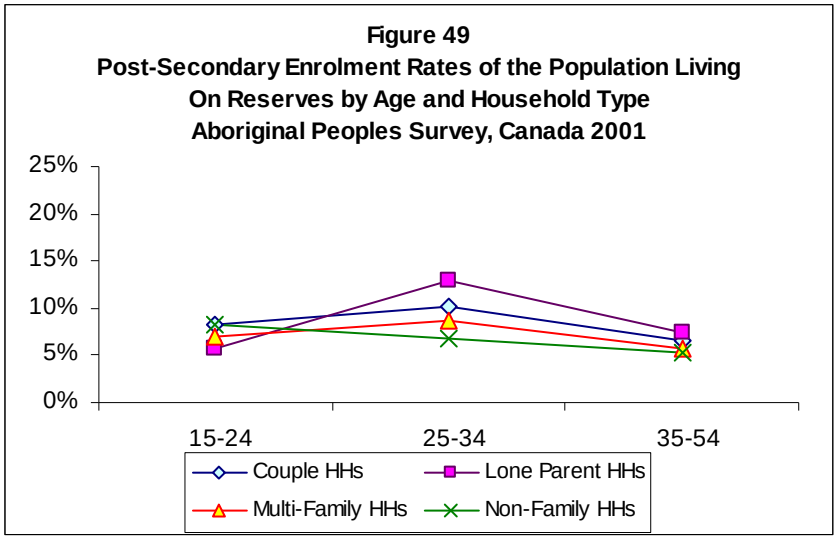
Gender and Full-Time/Part-Time Attendance	15-24	25-34	35-54	55+	All Ages
Elementary/Secondary School Enrolment rates					
Men					
Part Time	30.1%	0.8%	0.4%	0.1%	8.3%
Full Time	2.9%	0.7%	0.5%	0.1%	1.1%
Total	33.0%	1.5%	0.9%	0.2%	9.4%
Women					
Part Time	27.5%	1.7%	0.5%	0.0%	7.2%
Full Time	2.4%	1.2%	0.9%	0.1%	1.2%
Total	29.9%	3.0%	1.4%	0.1%	8.4%
Both Sexes					
Part Time	28.8%	1.3%	0.5%	0.0%	7.7%
Full Time	2.7%	1.0%	0.7%	0.1%	1.2%
Total	31.4%	2.3%	1.2%	0.1%	8.8%
Post-Secondary Enrolment rates					
Men					
Full Time	11.1%	6.1%	1.3%	0.1%	4.7%
Part Time	2.0%	3.4%	1.7%	1.0%	2.1%
Total	13.1%	9.5%	3.1%	1.1%	6.8%
Women					
Part Time	13.4%	8.6%	2.6%	0.4%	6.2%
Full Time	2.0%	4.9%	4.8%	0.2%	3.5%
Total	15.5%	13.5%	7.4%	0.6%	9.8%
Both Sexes					
Part Time	12.3%	7.5%	2.0%	0.2%	5.5%
Full Time	2.0%	4.2%	3.4%	0.6%	2.9%
Total	14.3%	11.7%	5.4%	0.8%	8.4%
Total Enrolment rates – All Educational Levels					
Men					
Full Time	41.3%	6.9%	1.8%	0.2%	13.0%
Part Time	4.9%	4.1%	2.2%	1.1%	3.2%
Total	46.2%	11.0%	4.0%	1.3%	16.2%
Women					
Part Time	40.9%	10.3%	3.1%	0.4%	13.4%
Full Time	4.5%	6.1%	5.7%	0.3%	4.8%
Total	45.4%	16.4%	8.8%	0.7%	18.2%
Both Sexes					
Part Time	41.1%	8.8%	2.5%	0.3%	13.2%
Full Time	4.7%	5.2%	4.1%	0.7%	4.0%
Total	45.7%	14.0%	6.6%	0.9%	17.2%

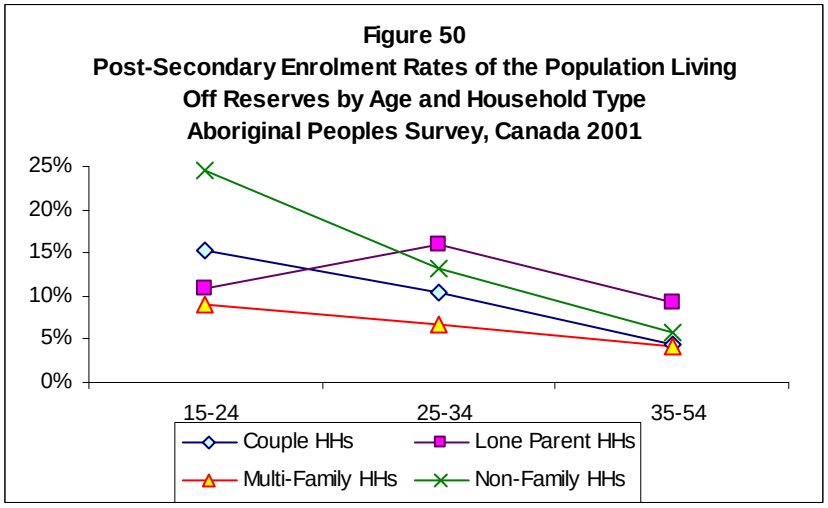
Generally, enrolment rates are a useful indicator because they indicate that school attendance was occurring at approximately the same time as the survey took place, when other household characteristics were identified. Post-secondary enrolment rates are of particular interest since they indicate the extent to which the population has achieved educational success. When post-secondary enrolment rates are examined in relation to household types and age groups, different patterns emerge on reserves and off reserves. (See Table 46.) On reserves post-secondary enrolment rates were at their highest level among the 25-34 age group, while off reserves the highest enrolment rates were found among the 15-24 age group. On reserves post-secondary enrolment rates increased with age for those living in all household types except for non-family households. Among those in lone parent families, post-secondary enrolment rates increased from about 6% for those 15-24 years to 13% for those 25-34 years old.

Off reserves there was a wider range of post-secondary enrolment rates than was found on reserves, and except for those in lone parent families, there were lower rates among the 25-34 year-olds than among the 15-24 year-olds. Among those living in lone parent households, on the other hand, post-secondary enrolment rates were higher among the 25-34 age group than among the 15-24 age group. (See Figures 49 and 50.)

Table 46
Post-Secondary Enrolment Rates
By On/Off Reserve Residency, Household Type and Age
Aboriginal Peoples Survey, Canada 2001

Gender and Household Type	15-24	25-34	35-54	55+	All Ages
On Reserves					
Couples	8.3%	10.1%	6.6%	0.9%	7.2%
Lone parents	5.7%	12.9%	7.4%	0.5%	7.1%
Multiple family households	7.0%	8.7%	5.8%	0.5%	6.0%
Non-family households	8.3%	6.7%	5.3%	1.1%	4.4%
Total	**7.4%**	**10.2%**	**6.4%**	**0.7%**	**6.7%**
Off Reserves					
Couples	15.3%	10.4%	4.5%	1.0%	7.9%
Lone parents	10.8%	16.0%	9.2%	1.0%	10.7%
Multiple family households	9.0%	6.8%	4.1%	1.0%	6.1%
Non-family households	24.6%	13.3%	5.7%	0.5%	8.6%
Total	**14.3%**	**11.7%**	**5.4%**	**0.9%**	**8.4%**





The enrolment rates of the 15 -24 year-old population were examined in relation to other household characteristics. (See Table 47.) Youth in this age group who were living on reserves had higher elementary-secondary enrolment rates when they lived in a rented home rather than in an owned home. Post-secondary enrolment rates of those in owned and rented homes were no different on reserves. Those living in lone parent households tended to have higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those in other types of households, whether they lived on or off reserves.

Off reserves, youth (15-24) who were living in households that did not meet the affordability standard had higher elementary-secondary enrolment rates, but slightly lower post-secondary enrolment rates, compared to those in households that met the affordability standard. Similarly, among youth living off reserves, those in crowded households had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those who did not live in crowded households. And

youth living off reserves in housing that needed major repairs had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those in housing that did not need major repairs.

On reserves the differences in enrolment rates were smaller between groups, but in all cases youth (15-24) living in less favourable household situations had lower enrolment rates.

Table 47
Elementary-Secondary and Post-Secondary Enrolment Rates Among the Population 15-24 Years Old by On/Off Reserve Residency and Various Household Characteristics, Aboriginal Peoples Survey, Canada 2001

	Elementary-Secondary Enrolment Rate		Post-Secondary Enrolment Rate	
Household Characteristic	**On Reserves**	**Off Reserves**	**On Reserves**	**Off Reserves**
Tenure				
Renters	39.0%	***	7.4%	***
Owners	31.4%	***	7.7%	***
Household Type				
Couple	38.6%	33.0%	8.3%	15.3%
Lone Parent	39.3%	35.7%	5.7%	10.8%
Multiple Family	30.6%	29.8%	7.0%	9.0%
Non-Family	18.8%	8.6%	8.3%	24.6%
Affordability				
Shelter Costs ≥ 30% or More of Income	n.a	28.9%	n.a	13.9%
Shelter Costs <30% of Income	n.a	20.8%	n.a	14.8%
Suitability				
Crowded	35.0%	36.0%	6.7%	10.9%
Not Crowded	36.9%	19.5%	8.1%	15.2%
Adequacy				
Dwelling Needs Major Repairs	34.8%	28.7%	6.5%	9.0%
Dwelling Does Not Need Major Repairs	37.2%	22.0%	7.9%	16.1%

*** Data not available.
n.a. Criterion not available on reserves.

6. Mobility

Household mobility and housing characteristics may affect each other in a number of ways. On the one hand, poor or inadequate housing may cause a family or individual to move in order to improve their housing. This could suggest that those who have moved are likely to have better housing than those who have not. On the other hand, people with low incomes or who are forced to move because of lack of employment or because of family or health crises may have fewer options and may end up in worse housing as a result. Both types of scenarios need to be kept in mind when considering the relationships between housing characteristics and mobility.

The 2001 APS included more detailed mobility questions to supplement those available from the Census. (See box.) These questions made it possible to distinguish between those who had never moved and those who had "ever moved" as well as to identify the number of moves between communities, reasons for moving, and length of residency in the community. Those who answered "yes" to the first question were not asked the other questions, so the population is divided into those who have never moved in or out of the community and those who have.

2001 APS - Mobility Questions (Section G)

G1. Have you lived in this city, town or community all your life? [Yes/No]

G2. How many times, if any, have you moved in the past five years? Do not include moves within the same city, town or community.

G3. Why did you move to this city, town or community?
- Family
- Work
- School
- Better housing
- Availability of services
- Other (Specify)

G4. How long ago did you move to this city, town or community? If you have moved away from this city, town or community and then returned, please refer to your most recent return.
- Within the last year
- Between 1 and 5 years
- More than 5 years ago

6.1 Ever Moved

The responses to the APS mobility questions can be used to define the tendency to move in and out of the community within three broad categories: those who have lived in the community for their whole lives, those who have moved, but not within the past five years, and those who have moved within the past five years. (See Table 48.) Among the Aboriginal population who lived on reserves, more than 68% had lived in the community all their lives while another 15% had not moved during the past five years. This left only 16% who had moved during the previous five years. Off reserves the picture was quite different. Only 33% had lived in the community all their lives, while another 37% had moved to the community more than five years previously, and 30% had moved to the community during the previous five years.

Table 48
Mobility History by On/Off Reserve Residency, Aboriginal Identity and Gender
Aboriginal Peoples Survey, Canada 2001

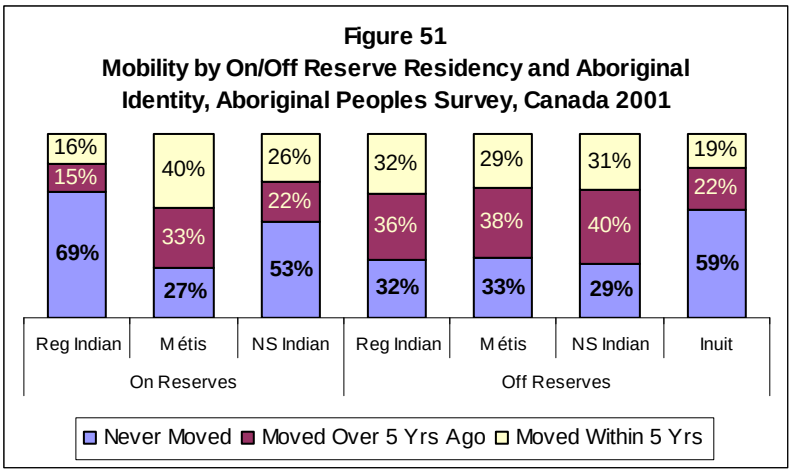
Aboriginal Identity and Gender	On Reserves			Off Reserves		
	Never Moved	No Moves Past 5 Yrs	Moved Within Past 5 Yrs	Never Moved	No Moves Past 5 Yrs	Moved Within Past 5 Yrs
Registered Indian	**68.9%**	**15.2%**	**15.9%**	**31.5%**	**36.2%**	**32.2%**
Men	71.0%	14.1%	14.8%	34.8%	34.9%	30.3%
Women	66.8%	16.2%	16.9%	29.1%	37.2%	33.7%
Métis	**26.7%**	**33.3%**	**40.0%**	**32.5%**	**38.0%**	**29.5%**
Men	25.0%	36.1%	38.9%	35.0%	35.6%	29.3%
Women	28.0%	28.0%	44.0%	30.2%	40.1%	29.6%
Non-Status Indian	**52.6%**	**21.6%**	**25.8%**	**29.1%**	**40.0%**	**30.9%**
Men	55.1%	22.4%	22.4%	32.8%	38.0%	29.1%
Women	51.0%	20.4%	28.6%	25.4%	41.9%	32.6%
Inuit	***	***	***	**58.8%**	**22.5%**	**18.8%**
Men	***	***	***	**62.1%**	**21.7%**	**16.2%**
Women	***	***	***	**55.6%**	**23.1%**	**21.3%**
Total Aboriginal	**68.4%**	**15.4%**	**16.2%**	**32.7%**	**36.8%**	**30.4%**
Men	70.4%	14.4%	15.2%	36.0%	34.9%	29.1%
Women	66.3%	16.4%	17.2%	29.9%	38.5%	31.6%

*** Data suppressed because of small counts.

There were also differences among Aboriginal groups, particularly on reserves where the proportion of the Métis population that had lived in the community their whole lives was much smaller than for the other Aboriginal groups. Off reserves, the Registered

Indian, Métis and Non-Status Indian populations had similar mobility histories, with 30%-32% of these populations having lived in the community all their lives, and a similar proportion having moved within the past five years. A relatively high proportion of the Inuit population, 59%, however, had lived in the community all their lives. (See Figure 51.)

It can also be seen from Table 48 that men tended to have moved less than women among all population groups, except perhaps for the Métis population on reserves.



6.2 Frequency of Moves

As noted above about 68% of the Aboriginal population on reserves had lived in the community all their lives. Another 23% of reserve residents had moved into the community at some point in time, but had only moved once at most during the previous five years, while 6% had moved two or three times, and 2% had moved four or more times. (See Table 49.)

Among the off-reserve population these percentages were quite different. About 33% of the off-reserve Aboriginal population had lived in the community all their lives, but those movers who had moved once or not at all during within the past five years, made up 52% of the population. Another 11% of off-reserve residents had moved two or three times, and 4% had moved four or more times. Again, women tended to move more often than men, both on off reserves.

On reserves, a larger proportion (71%) of those in the youngest age group (15-24) had never moved compared to other age groups. On the other hand the youngest age group also had the largest proportions who had moved two or three times (9%) or four or more times (3%) over the previous five years. A similar pattern was found off reserves with 45% of the youngest age group having never moved, while 21% had moved two or more times over the previous five years.

Table 49
Percent Who Have Moved Into or Out of the Community by Number of Moves, On/Off Reserve Residency, Age and Gender, Aboriginal Peoples Survey, Canada 2001

		Moves During Past 5 Years (among those who have ever moved)		
Age and Gender	**Never Moved**	**0-1 move**	**2-3 moves**	**4+ moves**
ON RESERVES				
All Ages 15 or Older	**68.4%**	**23.1%**	**6.4%**	**2.2%**
Men	70.4%	21.6%	6.0%	2.0%
Women	66.3%	24.5%	6.7%	2.4%
15-24	**70.9%**	**16.5%**	**9.3%**	**3.3%**
Men	71.7%	16.7%	8.5%	3.1%
Women	70.2%	16.2%	10.1%	3.5%
25-34	**63.9%**	**24.6%**	**8.7%**	**2.9%**
Men	67.3%	21.9%	8.2%	2.6%
Women	60.8%	27.0%	9.1%	3.2%
35-54	**66.5%**	**27.4%**	**4.6%**	**1.6%**
Men	69.0%	25.3%	4.3%	1.5%
Women	63.8%	29.6%	4.8%	1.8%
55+	**74.7%**	**23.0%**	**1.6%**	**0.7%**
Men	76.4%	21.8%	1.7%	0.2%
Women	73.5%	24.2%	1.5%	0.8%
OFF RESERVES				
All Ages 15 or Older	**32.7%**	**52.2%**	**11.2%**	**3.9%**
Men	36.0%	48.7%	11.6%	3.7%
Women	29.9%	55.2%	10.8%	4.1%
15-24	**45.3%**	**33.8%**	**14.1%**	**6.8%**
Men	47.6%	31.6%	14.5%	6.2%
Women	43.1%	35.8%	13.7%	7.3%
25-34	**30.9%**	**47.6%**	**15.6%**	**5.9%**
Men	33.8%	44.9%	16.0%	5.3%
Women	28.5%	49.8%	15.3%	6.4%
35-54	**27.8%**	**61.0%**	**9.1%**	**2.1%**
Men	31.9%	56.3%	9.7%	2.1%
Women	24.4%	64.9%	8.6%	2.1%
55+	**26.6%**	**68.2%**	**4.5%**	**0.7%**
Men	28.5%	66.3%	4.5%	0.6%
Women	25.0%	69.9%	4.5%	0.7%

In order to look at the question of how mobility affects housing needs, the housing characteristics of those who had moved at various levels of frequency were compared, controlling, as well, for age group and housing tenure. (See Table 50.) On reserves it was found that, among the movers, those who had moved in or out of the community from 0 to 1 time over the previous five years had more favourable housing conditions than those who either never moved, or had moved more than 2 times over five years.

The more frequently people had moved, the worse their housing circumstances tended to be, both in terms of crowding and the need for major repairs. This was especially true for those who had moved four times or more.

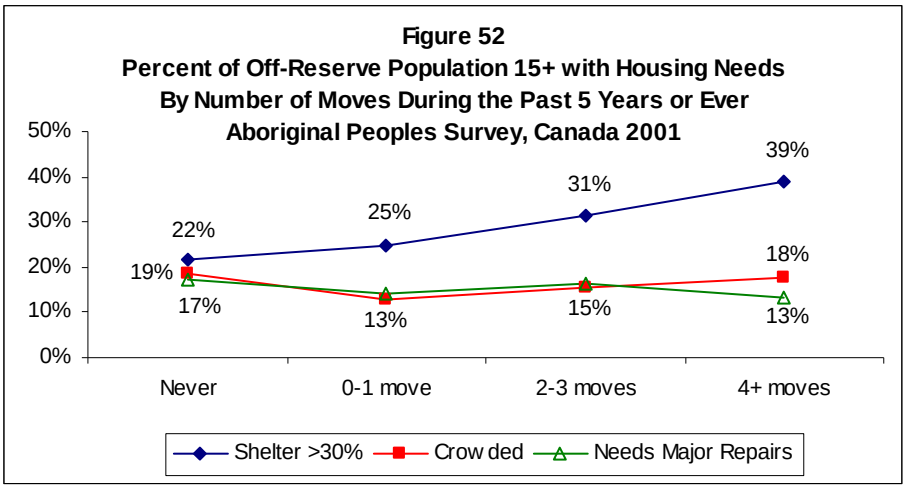
Table 50
Proportion of the Population Living Below Housing Standards
By Number of Moves, Age Group, Tenure and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

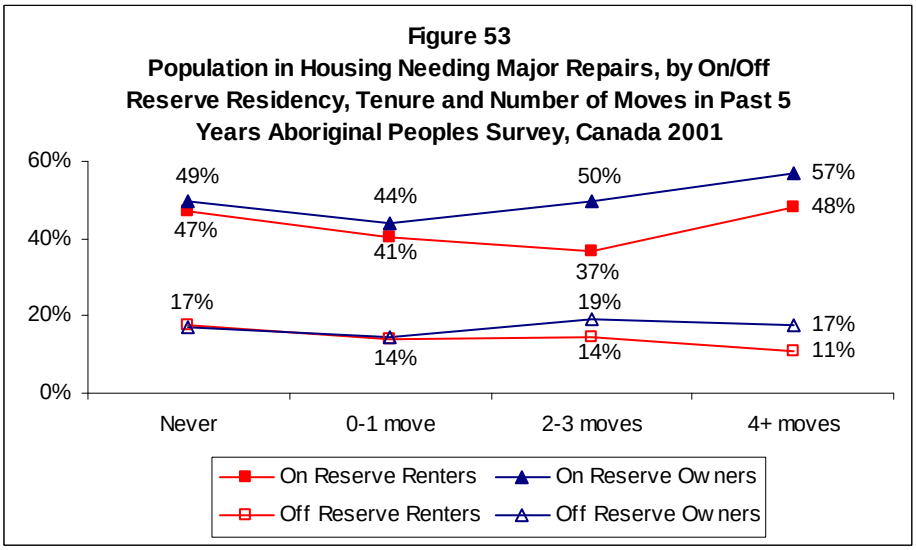
Residency, Housing Need and Age	RENTED HOUSING				OWNER-OCCUPIED HOUSING			
	Number of Moves: Ever or in Past 5 Years				Number of Moves: Ever or in Past 5 Years			
	Never	0-1	2-3	4+	Never	0-1	2-3	4+
ON RESERVES								
% in Crowded Households								
15-24	44.9%	38.4%	34.0%	43.8%	47.8%	41.3%	46.9%	45.7%
25-34	30.5%	34.4%	32.6%	23.5%	36.9%	35.0%	33.8%	43.5%
35-54	33.3%	21.9%	20.0%	43.8%	30.2%	25.6%	28.3%	26.3%
55+	27.2%	23.7%	***	***	23.8%	17.6%	***	***
Total 15+	**35.0%**	**29.2%**	**31.1%**	**39.2%**	**35.4%**	**29.3%**	**37.0%**	**41.3%**
% in Housing Needing Major Repairs								
15-24	43%	41%	26%	38%	46%	40%	48%	48%
25-34	48%	39%	50%	39%	50%	43%	51%	67%
35-54	48%	38%	33%	100%	51%	45%	50%	65%
55+	52%	53%	***	***	52%	47%	***	***
Total 15+	**47%**	**41%**	**37%**	**48%**	**49%**	**44%**	**50%**	**57%**
OFF RESERVES								
% with Shelter Costs ≥ 30% of Household Income								
15-24	34.5%	36.1%	38.4%	44.8%	14.3%	20.0%	21.4%	31.0%
25-34	31.0%	38.1%	33.3%	32.9%	13.5%	18.7%	22.9%	46.2%
35-54	24.8%	34.9%	40.7%	***	18.6%	14.5%	22.4%	22.6%
55+	29.0%	39.2%	***	***	19.3%	18.9%	29.3%	0.0%
Total 15+	**30.2%**	**36.5%**	**37.9%**	**40.8%**	**16.3%**	**16.8%**	**22.8%**	**35.9%**
% in Crowded Households								
15-24	28.6%	24.1%	22.6%	17.6%	16.6%	16.3%	18.9%	22.9%
25-34	30.5%	20.7%	17.7%	15.7%	16.5%	11.6%	9.5%	11.2%
35-54	21.9%	17.5%	14.1%	24.9%	11.1%	7.9%	10.7%	12.6%
55+	15.6%	13.8%	***	***	9.2%	3.0%	0.0%	0.0%
Total 15+	**26.0%**	**19.0%**	**17.7%**	**18.5%**	**13.7%**	**8.7%**	**12.5%**	**16.4%**
% in Housing Needing Major Repairs								
15-24	17.0%	13.4%	10.0%	7.9%	16.9%	15.8%	15.9%	16.8%
25-34	23.5%	11.0%	16.9%	8.4%	17.3%	12.3%	21.4%	11.2%
35-54	14.9%	16.4%	17.2%	19.1%	16.4%	14.9%	16.3%	25.3%
55+	13.1%	13.9%	***	***	18.7%	14.3%	28.1%	0.0%
Total 15+	**17.6%**	**14.1%**	**14.4%**	**10.7%**	**17.0%**	**14.5%**	**18.9%**	**17.5%**

*** Data suppressed because of small cell counts.

Off reserves there was a similar pattern, both in terms of household crowding and the need for major repairs. It was also possible to look at affordability off reserves and this showed a different and more straight-line relationship to mobility: the more people moved, the more they did not meet the affordability standard. (See Figure 52.) This could suggest that those with low incomes move more frequently, or that the process of moving from one community to another is associated with reduced income and/or higher housing costs.

Those living in rented housing had somewhat different characteristics from those in owned housing. (See Figure 53.) Higher proportions of owners were living in housing needing major repairs, both on reserves and off reserves, especially among those with higher rates of mobility.





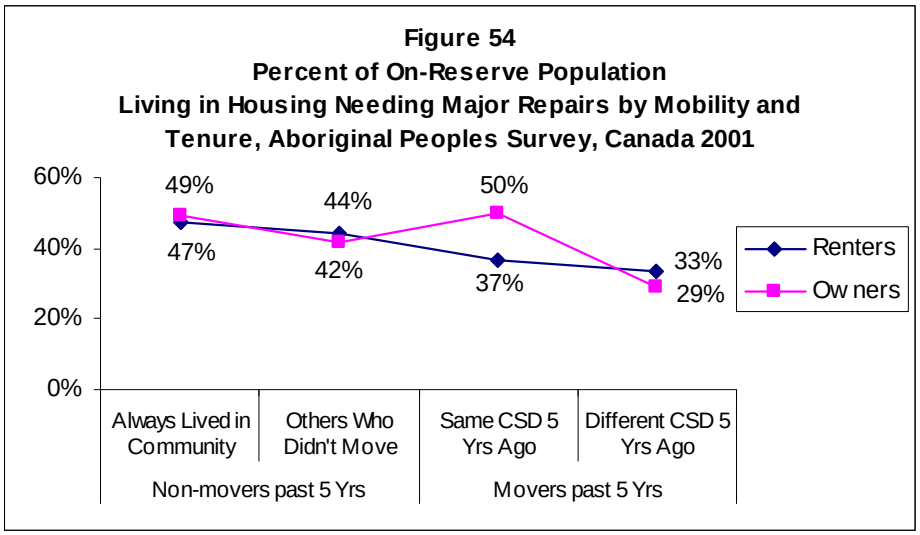
There were also some differences between different age groups, although the picture is complicated. Younger age groups tended to do better with more frequent moves than did older age groups, at least in terms of household crowding and need for major repairs. This was especially true among younger renters. For example, the 15-24 year old population, living off reserves in rental housing, had lower rates of household crowding if they had moved four or more times (18%) than if they never moved (29%) or had moved two or three times (23%).

6.3 Inter- and Intra-Community Moves

A second type of mobility data was also available for the on-reserve population. This data was derived from the 2001 Census itself and linked to the Aboriginal Peoples Survey, and identified whether the individual had lived in the same Census Subdivision (CSD) or in another CSD five years earlier. By combining the responses to these two different mobility questions four categories were created:

- Those who had always lived in the community
- Others who had not moved in or out of the community for the previous five years
- Those who had moved in or out of the community but lived in the same CSD five years earlier
- Those who lived in a different CSD five years earlier

In creating these categories it was assumed that moving in or out of a CSD is equivalent to moving in or out of a reserve community, since most reserves have a unique CSD number. It was found that those who had lived for a longer time in the reserve community were more often living in housing that needed major repairs, while fewer of those who had moved into the community more recently were in housing that needed major repairs. (See Figure 54.) This relationship was very consistent for renters, and also held true for those living in owned housing, except for those owners who moved within the CSD during the previous five years.



6.4 Length of Residency

As shown above, the APS included a question asking how long residents had lived in the community since their most recent move there. Using the responses to this question, length of residency was examined in relation to various indicators of housing need on and off reserves. (See Table 51.) The results were similar to the findings described above concerning frequency of moves. Among the off-reserve population there was a clear tendency for those who had recently moved to the community to experience affordability problems, and the longer they had lived in the community the lower the proportion living below the affordability standard.

Both on and off reserves the proportions living in crowded households were highest at both extremes, that is, among those who had lived in the community all their lives, and among those who had moved there within the last year. The percentages living in housing needing major repairs, however, did not follow a consistent pattern in relation to the time since the most recent move.

When the housing needs of those living in different household types were compared, the results were similar to those noted above in section 1.5. Higher proportions of those living in multiple family households were below the crowding standard than those in other types of households, both on reserves (66% to 71%) and off reserves (41% to 63%). High proportions of those in lone parent households were also below the crowding standard, ranging from 24% to 40% of the population on reserves and from 24% to 30% of the population off reserves. Again, there was not a consistent relationship between length of time since the most recent move to the community and the proportion living below the suitability (crowding) standard.

High proportions of those living off reserves in both lone parent and non-family households were below the affordability standard. These proportions ranged from about 35% to 50% and were generally more than twice as high among lone parent and non-

family households as they were among couple households. For those in all household types other than multiple family households, the proportions below the affordability standard declined as the length of time since the last move to the community increased. This suggests that the incomes those of who are new migrants to their current community are lower than those of longer term residents, perhaps in part because of the difficulty of obtaining employment in a new location.

Table 51
Proportion of the Population Living Below Housing Standards
By On/Off Reserve Residency, Time Since Last Move, and Household Type
Aboriginal Peoples Survey, Canada 2001

Type of Housing Standard & Years Since Most Recent Move to Community	Couple	Lone Parent	Multiple Family	Non-family	Total
ON RESERVES					
Below Suitability Standard					
Always lived here	28.6%	29.8%	69.5%	3.7%	35.5%
More than 5 Years	21.3%	24.1%	65.8%	***	26.6%
1-5 Years	27.7%	33.6%	65.9%	***	34.7%
Less than 1 Year	32.5%	40.3%	71.4%	***	42.4%
Below Adequacy Standard					
Always lived here	46.6%	49.8%	52.6%	51.6%	48.8%
More than 5 Years	40.6%	50.8%	44.6%	46.1%	43.3%
1-5 Years	49.4%	47.8%	45.0%	51.3%	48.2%
Less than 1 Year	40.0%	47.4%	42.0%	53.8%	42.8%
OFF RESERVES					
Below Affordability Standard					
Always lived here	15.4%	35.4%	13.7%	36.7%	21.9%
More than 5 Years	17.0%	40.3%	14.3%	42.1%	25.1%
1-5 Years	20.6%	43.8%	16.1%	46.9%	29.5%
Less than 1 Year	22.8%	46.5%	9.3%	50.7%	31.1%
Below Suitability Standard					
Always lived here	12.9%	27.6%	62.9%	5.6%	18.6%
More than 5 Years	9.1%	24.0%	53.8%	4.6%	12.7%
1-5 Years	8.8%	29.8%	40.8%	10.0%	14.3%
Less than 1 Year	13.5%	29.0%	42.6%	9.8%	18.8%
Below Adequacy Standard					
Always lived here	17.3%	16.3%	19.1%	25.9%	13.5%
More than 5 Years	14.5%	13.8%	16.5%	18.1%	14.1%
1-5 Years	14.6%	15.5%	12.6%	14.8%	13.5%
Less than 1 Year	14.9%	12.6%	16.7%	17.0%	19.0%

*** Data suppressed because of small counts.

6.3 Reasons for Moving

As noted above, the APS asked respondents about the reasons for their most recent move to the community, town or city. (See box on page 83.) There were marked differences between men and women and between those living on reserves and off

reserves in the reasons given for their most recent move. (See Figures 55-58.) On reserves, between 54% and 63% of men and between 63% and 69% of women, depending on age, said that they moved for family-related reasons. The next most frequent reason given was for work. The proportions who moved for work were between 13% and 31% among men and between 7% and 20% among women, with the highest percentages among those between 25 and 54 years old. School was the next most frequent response, and was highest among those 15-24 years for both men (23%) and women (26%). On reserves, reasons related to housing were given by 4% to 9% of men and 7% to 11% of women. In general, women were more likely to give reasons related to family, school and housing and less likely to give reasons related to employment than men.

Off reserves, fewer people said they had moved for family reasons, but this remained the largest single reason among women and among youth. Among young men 53% gave family as their reason for moving, while 56% of young women gave family as the reason. However, among those over the age of 25 the proportion who said they moved for work-related reasons was larger than among youth. Among men over 25 work was the most frequent reason given for moving, and represented 40% to 41% of men in these age groups. Among women over 25 family remained the most frequent reason for moving at 42% to 44%, but work was also important for 26% to 31% of these women. Housing was less frequently mentioned among the off reserve population, and was given as a reason by 3% to 11% of women and 7% to 11% of men. Social services and health care were mentioned as reasons for moving by small numbers of men and women off reserves, and the number identifying these reasons tended to increase with age.

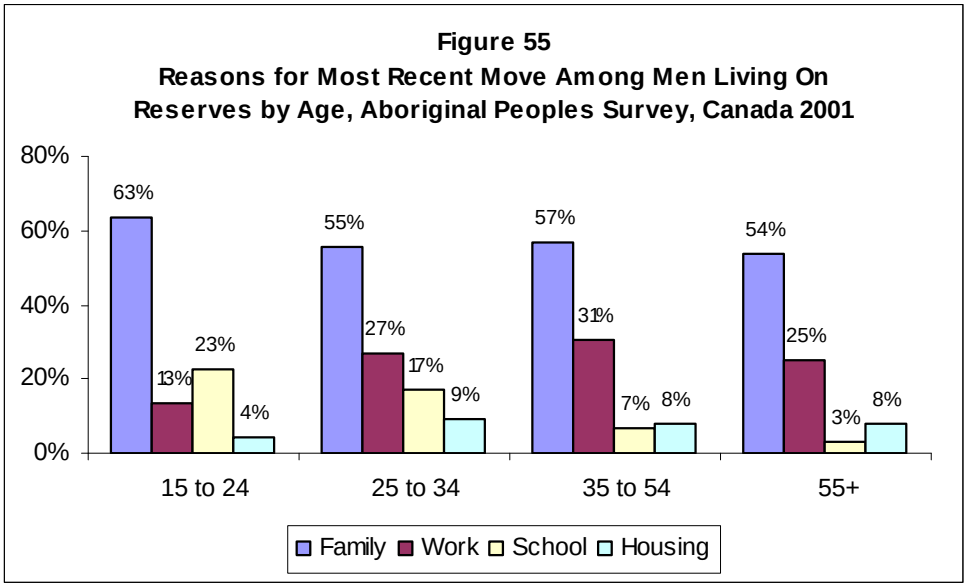


Figure 56
Reasons for Most Recent Move Among Women Living On Reserves by Age, Aboriginal Peoples Survey, Canada 2001

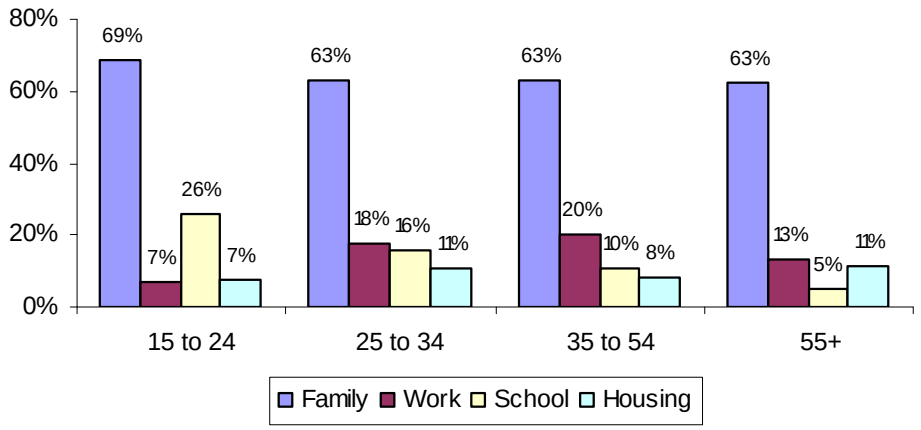
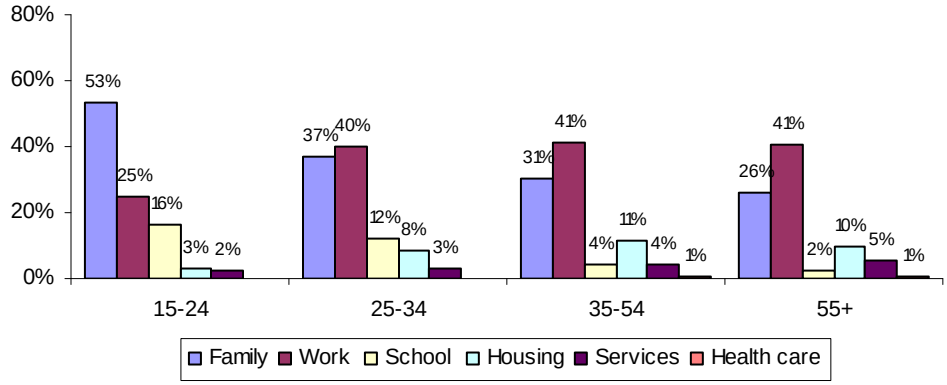
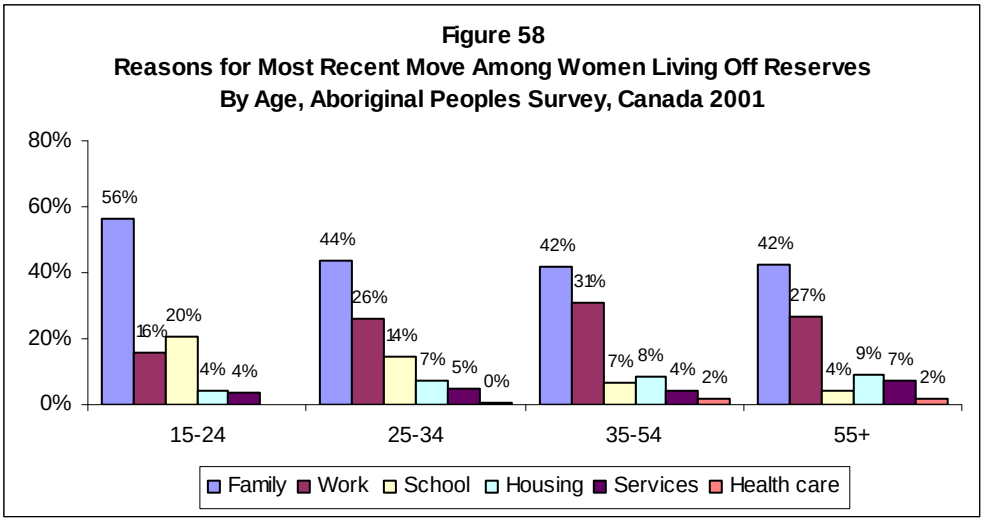


Figure 57
Reasons for Most Recent Move Among Men Living Off Reserves By Age, Aboriginal Peoples Survey, Canada 2001





The relationships between reasons for moving and housing needs were examined. (See Table 52.) This did not reveal large differences in needs associated with reasons for moving, except that those who moved for work tended to have fewer housing needs than those who moved for other reasons. For example, about 26% of those who moved to reserves for work reasons lived in crowded households, compared to 31% to 35% of those who gave other reasons. Similarly, about 13% of those who moved to an off-reserve community for work-related reasons were living in housing needing major repairs, compared to 14% to 18% of most others. In general, this tendency was found among those living in both rental and owned housing, on and off reserves.

Table 52
Proportion of the Population Living Below Housing Standards
By Reasons for Moving, Tenure and On/Off Reserve Residency
Aboriginal Peoples Survey, Canada 2001

Selected Reasons for Moving	On Reserves			Off Reserves		
	Total	Renters	Owners	Total	Renters	Owners
Percent with Shelter Costs ≥ 30% of Income						
Family	n.a.	n.a.	n.a.	26.9%	37.1%	15.4%
Work	n.a.	n.a.	n.a.	20.2%	28.3%	13.1%
School	n.a.	n.a.	n.a.	36.9%	45.9%	18.5%
Housing	n.a.	n.a.	n.a.	31.5%	46.5%	19.4%
Services	n.a.	n.a.	n.a.	38.2%	49.5%	21.0%
Health care	n.a.	n.a.	n.a.	47.6%	63.2%	***
Other	n.a.	n.a.	n.a.	31.9%	44.1%	19.7%
Percent in Crowded Households						
Family	32.0%	30.5%	32.4%	16.8%	21.6%	10.0%
Work	25.5%	27.2%	22.1%	10.4%	14.4%	6.2%
School	34.8%	32.7%	36.1%	15.7%	18.5%	8.0%
Housing	32.3%	25.9%	33.3%	11.2%	19.9%	4.0%
Services	32.3%	29.6%	35.3%	17.6%	22.5%	8.4%
Health care	***	***	***	9.1%	13.5%	***
Other	31.1%	29.1%	30.3%	13.8%	21.1%	5.9%
Percent in Housing Needing Major Repairs						
Family	45.6%	42.0%	46.6%	16.4%	15.8%	15.7%
Work	37.8%	36.1%	38.9%	13.0%	11.9%	13.8%
School	43.3%	28.9%	50.5%	13.7%	12.3%	15.9%
Housing	43.0%	32.1%	47.6%	14.9%	14.6%	13.7%
Services	49.4%	34.6%	52.9%	18.1%	15.1%	22.5%
Health care	40.0%	***	***	13.2%	14.0%	***
Other	45.0%	42.6%	45.8%	13.5%	13.9%	12.9%

n.a. Data not available on reserves.
*** Data suppressed because of small counts.

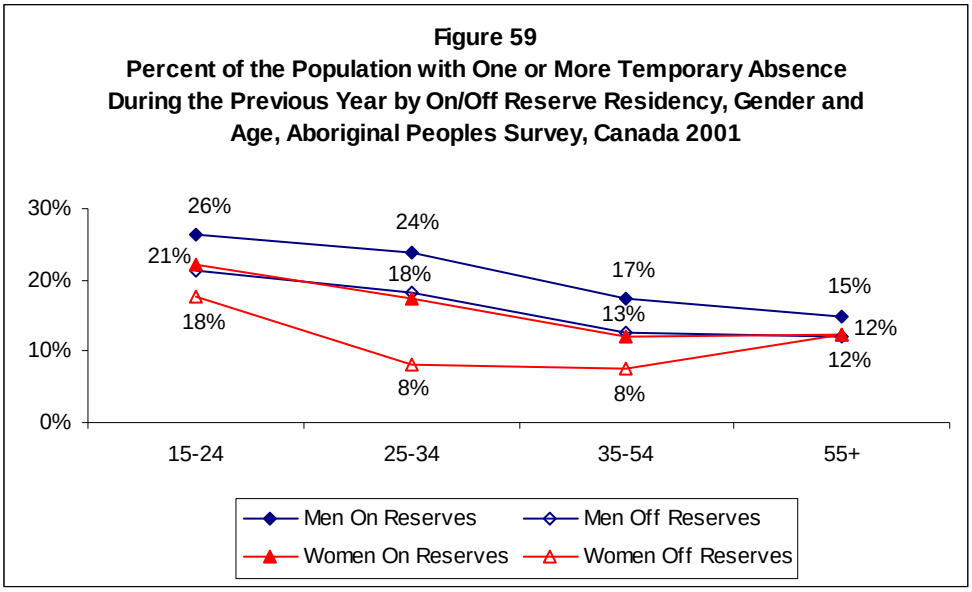
6.4 Temporary Absences from Home

The Aboriginal population is sometimes thought to differ from the general Canadian population in the frequency of temporary absences from home. The APS included two questions concerning temporary absences, one asking whether the respondent was absent from home for at least one month during the previous 12 months for various purposes, and another asking how many such absences occurred over this time. About 18% of Aboriginal people living on reserves, and about 13% of Aboriginal people living off reserves were temporarily absent from home at least once in the previous year. (See Table 53.) More men than women were absent from home, and the highest rates of temporary absences were among younger age groups, especially those 15-24 years old. As many as 26% of young men, 15-24 years old, living on reserves had one or more temporary absences during the previous year, but this proportion declined with age, particularly over the age of 35. (See Figure 59.) Women living on reserves followed a similar trend, but at a lower rate of absences, with 21% of 15-24 year-olds reporting temporary absences, declining to 12% of those over 55 years old. The trend among men living off reserves was virtually the same as for women living on reserves. Women living off reserves had the lowest rates of temporary absences and, unlike the other groups, had the lowest rates in the 25-34 and 35-54 age groups.

Table 53
Number of Temporary Absences* from Home During Previous Year by Gender, Age and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

	On Reserves			Off Reserves		
Gender and Age	**No Absences**	**1 Absence**	**2+ Absences**	**No Absences**	**1 Absence**	**2+ Absences**
Both Sexes, 15+	**81.5%**	**10.4%**	**8.1%**	**86.8%**	**8.7%**	**4.5%**
15 to 24 years old	75.8%	14.3%	9.9%	80.6%	13.3%	6.1%
25 to 34 years old	79.5%	12.1%	8.4%	87.4%	8.1%	4.5%
35 to 54 years old	85.2%	8.0%	6.8%	90.0%	6.0%	3.9%
55+ years old	86.5%	5.8%	7.7%	87.9%	8.6%	3.5%
Men, 15+	**79.0%**	**11.3%**	**9.7%**	**84.0%**	**9.9%**	**6.2%**
15 to 24 years old	73.7%	15.2%	11.0%	78.8%	14.4%	6.8%
25 to 34 years old	76.2%	13.0%	10.8%	81.6%	11.1%	7.2%
35 to 54 years old	82.5%	9.0%	8.4%	87.3%	6.9%	5.8%
55+ years old	85.1%	6.0%	8.9%	88.0%	7.5%	4.5%
Women, 15+	**83.9%**	**9.5%**	**6.6%**	**89.3%**	**7.6%**	**3.1%**
15 to 24 years old	77.8%	13.3%	8.8%	82.3%	12.3%	5.4%
25 to 34 years old	82.6%	11.3%	6.1%	92.0%	5.7%	2.3%
35 to 54 years old	87.9%	7.0%	5.1%	92.3%	5.3%	2.4%
55+ years old	87.6%	5.8%	6.6%	87.7%	9.5%	2.8%

* Absences of at least one month.



Both men and women living in multiple family households had more temporary absences from home than those living in couple or non-family households. (See Table 54 and Figure 60.) On reserves, as many as 22% of men living on reserves in multiple family households had at least one temporary absence during the previous year, compared to 20% of those living in couple households and 18% of those living in non-family households. An even higher proportion of men living on reserves in lone parent households (25%) had one or more temporary absences. On the other hand, women living in lone parent households were not as likely to have temporary absences as those women in multiple family households.

In addition, those living in crowded households tended to have more temporary absences from home than those in uncrowded households. (See Figure 61.) This was especially true for those living on reserves where 24% of men and 19% of women in crowded households reported temporary absences, compared to 19% of men and 15% of women in uncrowded households. There was also a slight tendency for those living in housing that needed major repairs to have more temporary absences than others. (See Figure 62.)

Men and women living on reserves who were temporarily absent from home tended to give different reasons for being away. (See Figure 63. No data on reasons for absences were available for those living off reserves.) Among men living on reserves, 38% of those who were temporarily absent gave “work” as the reason, while another 32% gave hunting, fishing, harvesting or being on the land as the reason. Among women living on reserves the most frequent reasons given were to go to school (34%) or family-related (34%).

There were also differences between those who had moved to the reserve community within the past five years (migrants) and those who had not. (See Figure 64.) The migrants were more likely than non-migrants to mention work, school or family as their

reasons for temporary absences, while the non-migrants were more likely than migrants to mention being on the land, illness or pregnancy as their reasons for absences.

Table 54
Number of Temporary Absences* from Home During Previous Year by Gender, Household Type and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

	On Reserves			Off Reserves		
Gender and Household Type	**No Absences**	**1 Absence**	**2+ Absences**	**No Absences**	**1 Absence**	**2+ Absences**
Both Sexes	**81.5%**	**10.4%**	**8.1%**	**86.8%**	**8.7%**	**4.5%**
Couple	82.2%	9.6%	8.2%	87.4%	8.4%	4.2%
Lone parent	79.9%	12.2%	7.9%	86.2%	9.2%	4.6%
Multiple family	79.8%	11.7%	8.5%	83.2%	10.5%	6.3%
Non-family	84.0%	8.4%	7.6%	86.4%	8.4%	5.2%
Men	**79.0%**	**11.3%**	**9.7%**	**84.0%**	**9.9%**	**6.2%**
Couple	79.7%	10.5%	9.8%	84.7%	9.8%	5.6%
Lone parent	75.3%	14.3%	10.4%	81.6%	10.7%	7.7%
Multiple family	77.6%	12.7%	9.7%	80.0%	12.2%	7.8%
Non-family	82.4%	9.0%	8.7%	84.5%	8.8%	6.7%
Women	**83.9%**	**9.5%**	**6.6%**	**89.3%**	**7.6%**	**3.1%**
Couple	84.8%	8.8%	6.4%	90.1%	7.1%	2.9%
Lone parent	83.0%	10.8%	6.2%	88.6%	8.4%	3.0%
Multiple family	81.6%	10.8%	7.5%	85.4%	9.3%	5.3%
Non-family	87.2%	7.3%	5.6%	88.4%	8.0%	3.5%

* Absences of at least one month.

Figure 60
Percentage with One or More Temporary Absence from Home During the Previous Year by Household Type and On/Off Reserve Residency, Aboriginal Peoples Survey, Canada 2001

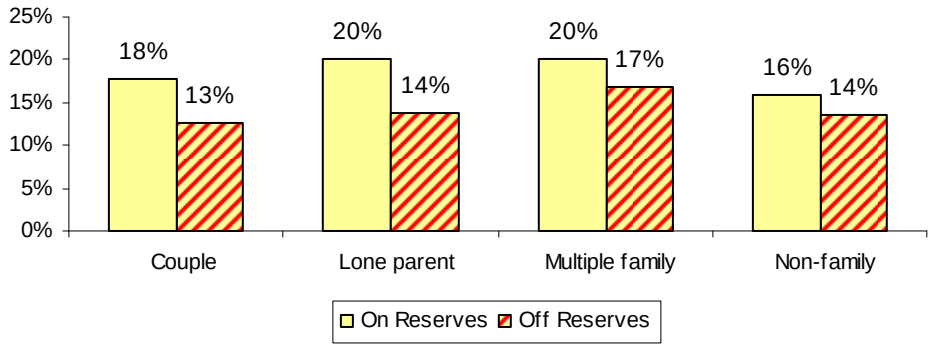


Figure 61
Percent of the Population with One or More Temporary Absence During the Previous Year by On/Off Reserve Residency, Gender and Household Crowding, Aboriginal Peoples Survey, Canada 2001

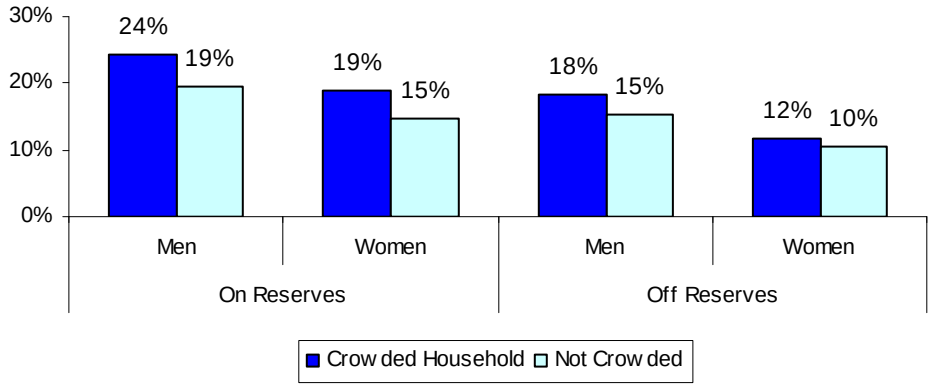


Figure 62
Percent of the Population with One or More Temporary Absence During the Previous Year by On/Off Reserve Residency, Gender and Need for Major Repairs, Aboriginal Peoples Survey, Canada 2001

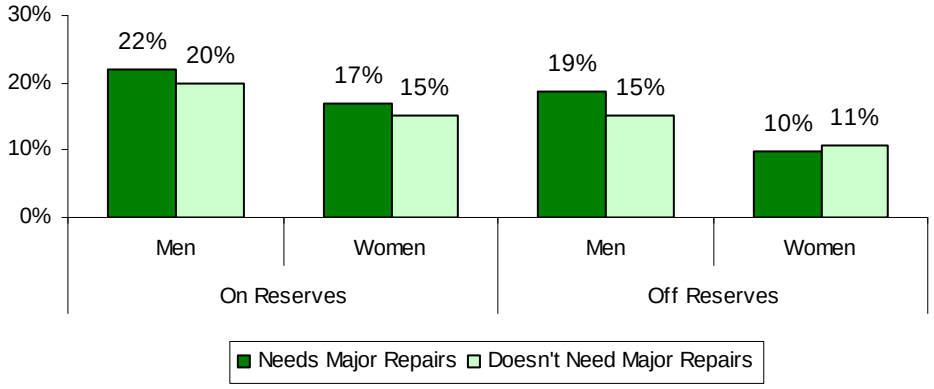


Figure 63
Reasons for Temporary Absences from Home Among On-Reserve Residents by Gender, Aboriginal Peoples Survey, Canada 2001

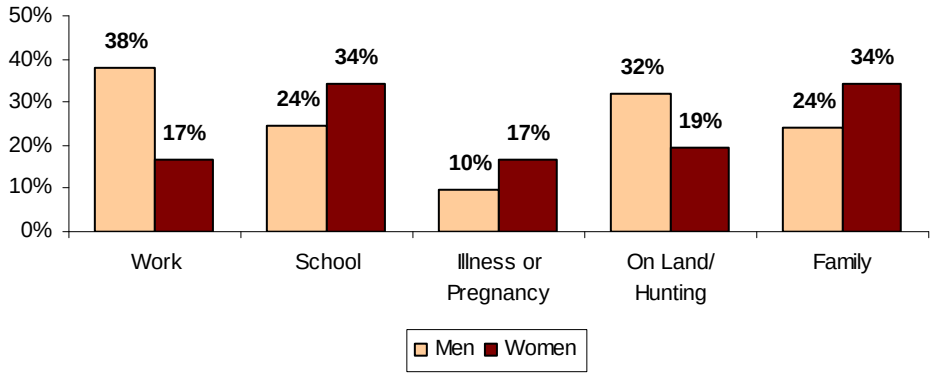
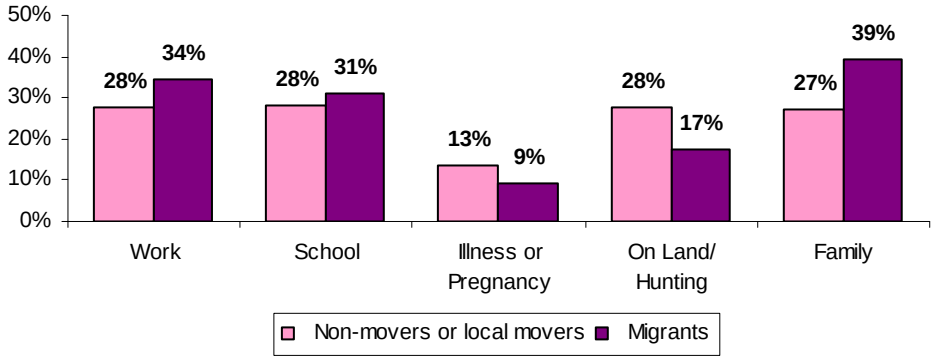


Figure 64
Reasons for Temporary Absences from Home Among On-Reserve Residents by Mobility Status, Aboriginal Peoples Survey, Canada 2001



7. Highlights and Conclusions

This study has provided a wide-ranging exploration of data related to housing and households from the Aboriginal Peoples Survey. Some of the findings from this exploration suggest possible relationships between housing needs and characteristics and other socio-economic factors such as education and health, but the findings are far from conclusive. The findings also complement and extend the findings from other studies based on the Census of Canada.

7.1 Highlights of Findings

Crowding

- Based on the Aboriginal Peoples Survey, about one third of the Aboriginal population on reserves and 15% of the Aboriginal population off reserves were living in crowded conditions in 2001, as defined by the National Occupancy Standard.
- Those living in multiple family households were more likely to be crowded than others. More than two thirds of those in multiple family households on reserves and more than half of those in multiple family households off reserves were crowded.
- The Inuit population tended to experience especially high rates of crowding, compared to other Aboriginal populations living off reserves.
- Those on the waiting list for subsidized housing were more likely than other renters to be in crowded housing, both on and off reserves.

Major Repairs

- Nearly half of the population on reserves lived in housing that needed major repairs.
- About 15% of the Aboriginal population off reserves lived in dwellings needing major repairs.
- The Inuit population tended to experience higher rates of housing in need of major repairs compared to other Aboriginal populations living off reserves.
- Those on the waiting list for subsidized housing were more likely than other renters to be in housing that needed major repairs, both on and off reserves.
- Off reserves, those living in owner-occupied households were less likely than renters to be in housing that needed major repairs.

Affordability (Off Reserves only)

- 25% of the population off reserves were in households that fell below the affordability standard (shelter costs ≥ 30% or more of household income).
- 38% of those living in lone parent households and 43% of non-family households did not meet the affordability standard.

Core Housing Need (Off Reserves only)

- A larger proportion of renters (31%) than owners (12%) were in core housing need.
- Among renters, those in households that were on a waiting list for subsidization had a higher percentage (49%) living in core housing need compared to those in subsidized housing (41%).
- 25% of unsubsidized renters were in living in core housing need.

Water Safety

- Almost half (46%) of those living on reserves either said they had unsafe water or that their water was sometimes contaminated, or both.
- 22% of off-reserve respondents said that they had unsafe water or that their water was sometimes contaminated, or both.
- Renters were more likely to report water safety and/or contamination problems compared to those in owner-occupied housing, both on and off reserves.
- On reserves 52% of those in housing needing major repairs also reported safety and/or contamination problems, compared to 42% of others.
- Off reserves 24% of those in housing needing major repairs reported problems, compared to 22% of others.

Heating Equipment

- On reserves 56% of households had central heating, 33% had electric heating and 30% had stove-type heating.
- Off reserves 69% of households had central heating, 29% had electric heating and 15% had stove-type heating.
- There were no significant relationships between housing conditions and heating equipment.

Detectors

- 83% of the Aboriginal population on reserves and 93% of the Aboriginal population off reserves lived in housing with smoke or CO detectors, but 17% of the population on reserves and 7% of the population off reserves did not.
- On reserves, the proportion of the population living in households without detectors ranged from 15% of those in couple households to 26% of those in non-family households.
- Off reserves, the proportion living in housing without detectors was smaller, ranging from 6% of those in couple households to 8% of those in multiple family households
- Those living in homes that needed major repairs were more likely not to have detectors, especially on reserves where 24% did not have smoke or CO detectors.

Property Insurance

- The percentage of the population living in insured housing was much lower on reserves (38%) than off reserves (68%).

- On reserves, a smaller percentage of those living in owner-occupied housing (34%) had property insurance compared to renters (45%).
- Off reserves the opposite was true: 89% of those living in owner-occupied dwellings had property insurance compared to 43% of renters.
- Both on and off reserves, those on the waiting list for subsidized housing were less often insured than other renters.
- On reserves, only 28% of those living in crowded housing had insurance, compared to 43% of those living housing that was not crowded.
- On reserves, 29% of those living in homes needing repairs were insured, compared to 46% of those living in homes in good repair.
- Off reserves, housing needs were also associated with lack of property insurance. Less than half (45%) of Aboriginal people who were in core housing need had property insurance, compared to 80% of those not in core housing need.

Modifications to Accommodate Activity Limitations

- The dwellings of those living on reserves were in much greater need of modifications than the dwellings of those living off reserves.
- The combination of living on reserves and living in either crowded housing or housing that needs major repairs, is associated with much higher percentages of dwellings that “need but don’t have” modifications.
- There tend to be greater levels of need for door and hallway modifications, ramps, and bathroom modifications than for kitchen modifications and alert devices.

Age of Housing

- On reserves, even relatively new housing had a high incidence of needing major repairs. About 23% of those in housing 0-10 years old reported that major repairs were needed, compared to 36% of those in housing over 30 years old.
- Off reserves, 9% of those living in housing 0-10 years old reported that major repairs were needed compared to 20% of those in housing over 30 years old.
- Aboriginal respondents living off reserves were more likely to be living in older dwellings than those living on reserves. Nearly half (45%) of those living off reserves were in homes more than 30 years old, compared to 10% of those living on reserves.

Sources of Income On Reserves

- On reserves, 30% of those with employment income lived in crowded housing compared to 39% of those without employment income.
- On reserves, 44% of those with employment income lived in housing that needed major repairs, compared to 52% of those without employment income.

Sources of Income Off Reserves

- Among the off-reserve population, about 20% of those with employment income did not meet the affordability standard, compared to 37% of those without employment income.

- Similarly, 15% of those living off reserves with employment income were in core housing need, compared to 31% of those without employment income.
- Off reserves, about 28% of those who received social assistance were living in crowded housing compared to 13% of those who did not receive social assistance.
- Off reserves, 20% of those who received social assistance were living in housing needing major repairs compared to 15% of those who did not receive social assistance.
- Off reserves, 52% of those receiving social assistance were living in households that did not meet the affordability standard, compared to 21% of those who did not receive social assistance.
- Off reserves, 31% of social assistance recipients were in core housing need, compared to 14% of those not receiving social assistance.

- Based on responses to the APS, most Aboriginal people (68%) living off reserves had income from employment in 2001. (See Table 24.) In addition about 11% of them received income from Employment Insurance, about 10% received income from federal pensions (CPP or QPP), about 15% received social assistance income, and 25% received income from various other sources.
- Where individuals received income from social assistance, most households (75%) had per capita incomes below $10,000, but where income was reported from employment, E.I. or federal pensions, most households had higher per capita incomes.

Per Capita Income (Off Reserves)

- As *per capita* household income increased, the percentages living in households below the various housing standards decreased.
- As *per capita* income increased from less than $5,000 to more than $10,000 per person, the percentage living in households that did not meet the affordability standard declined from about 76% to 20%.
- Declines were also seen in crowding and need for major repairs, as *per capita* income increased.

Labour Force Status

- On reserves, 29% of the employed in 2001 lived in crowded housing, compared to 35% of the unemployed and 38% of those not in the labour market.
- On reserves, 42% of the employed lived in housing in need of major repairs, compared to 55% of the unemployed and 50% of those not in the labour market.

- Off reserves, 13% of the employed lived in crowded housing, compared to 20% of the unemployed and 19% of non-participants.
- Off reserves, 14% of the employed lived in housing in need of major repairs, compared to 18% of the unemployed and 17% of those not in the labour market.
- Off reserves, 19% of the employed were in households that did not meet the affordability standard, compared to 33% of those who were unemployed and 35% of those who were not in the labour market.

- Overall, 13% of off-reserve employed residents were in core housing need, compared to 28% of the unemployed and 30% of those not in the labour market

Weeks Worked

- On reserves, about 39% of those who did not work in the year 2000 lived in crowded households, compared to 26% of those who worked 40 or more weeks of the year.
- On reserves, 51% of those who did not work in the year 2000 lived in dwellings that needed major repairs, compared to 42% of those who worked 40 or more weeks of the year.
- Off reserves, as the number of weeks worked increased, the proportion who lived in households that did not meet the affordability standard declined.
- Off reserves, the proportion who were experiencing core housing need declined strongly as weeks worked increased, from 33% among those who didn't work, to 10% among those who worked 40 or more weeks.

Self-Reported Health Status

- About 48% of Aboriginal people living on reserves, and about 56% of Aboriginal people living off reserves described themselves as having very good or excellent health, while 18% and 17% respectively described their health as fair or poor.
- Among those over 55 years old, 45% of those on reserves and 42% of those off reserves described their health as fair or poor.
- The percentage with fair or poor health was consistently higher among those living in housing that needed major repairs compared to those living in housing that didn't need major repairs. This difference increased with age.

Chronic Health Conditions

- On reserves, the chronic health conditions with the highest prevalence on reserves in 2001 were arthritis/rheumatism (15%), high blood pressure (12%), diabetes (11%), stomach and intestinal problems (8%), and heart problems (6%).
- The incidence of respiratory conditions was somewhat lower: asthma (7%), emphysema/shortness of breath (4%), chronic bronchitis (3%), and tuberculosis (3%).
- Off reserves, the health conditions with the highest prevalence were arthritis/rheumatism(19%), high blood pressure (12%), asthma (12%) and stomach/intestinal problems (11%).
- The prevalence of arthritis/rheumatism, asthma and stomach/intestinal problems were substantially higher off reserves than on reserves, while the prevalence of diabetes was higher on reserves.
- Among on-reserve residents living in housing needing major repairs, the percentage with two or more health conditions were higher than among those living in housing that didn't need major repairs. This held true for all age groups.

- Off reserves, those living in affordable housing tended to have lower prevalence of chronic conditions. Similarly those who were not in core housing need tended to have lower prevalence rates than others.

Activity Limitations

- About 12% of Aboriginal people living on reserves reported someone needing one or more special features for those with disabilities, compared to about 6% of Aboriginal people living off reserves.
- 26% of respondents over 55 years old on reserves and 12% of respondents over 55 off reserves reported that someone in the household needed one or more special features.
- Among on-reserve respondents over 55, 32% of those in dwellings needing major repairs reported that someone needed special features, compared to 20% of respondents in dwellings where major repairs were not needed.
- Higher percentages of those living in multiple family households reported that someone needed special features, compared to other types of households, especially among those on reserves.
- Higher percentages of hose living in lone parent households also reported that someone needed special features, compared to those living in couple or non-family households.
- 18% of those living off reserves reported to have frequent activity limitations, compared to 12% of those living on reserves.
- Among those 55 or older, the proportions reporting frequent activity limitations were similar among the on-reserve (35%) and off-reserve (36%) populations.

Educational Attainment

- Respondents living off reserves generally had higher levels of education than those living on reserves. On reserves 56% of the adult population had not completed high school or any post-secondary education, compared to 37% of the Aboriginal population off reserves.
- Off reserves, 63% of the adult population had completed high school or a higher educational level.
- Those living in couple households, or in non-family households, tended to have higher levels of education than those living in lone parent or multiple family households, both on and off reserves.
- Off reserves 41% of those in rented households had not completed high school, compared to 33% of those in owner-occupied households.
- On reserves about 40% of those in crowded households had not completed high school, while among those in uncrowded households, 31% had not completed high school.
- On reserves, those living in housing that needed major repairs had lower levels of educational attainment than those living in housing that did not need major repairs.
- On reserves among young people 15-24, 23% of those living in crowded housing had completed high school or higher levels of education compared 30% of those living in uncrowded housing.

- On reserves among young people 15-24, 25% of those who lived in housing requiring major repairs had completed high school, compared to 30% of those in housing where major repairs were not needed.

Enrolment Rates

- Those living in lone parent households had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those in other types of households, whether they lived on or off reserves.
- Off reserves, youth (15-24) who were living in households below the affordability standard had higher elementary-secondary enrolment rates, but slightly lower post-secondary enrolment rates, compared to those in households that met the affordability standard.
- Youth (15-24) living off reserves in crowded households had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those who did not live in crowded households.
- Youth (15-24) living off reserves in housing that needed major repairs had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those in housing that did not need major repairs.
- On reserves the differences in enrolment rates were smaller between groups, but in all cases youth (15-24) living in less favourable household situations had lower enrolment rates.

Frequency of Moves

- More than two-thirds of the population living on reserves said they had lived in the community all their lives, while off reserves one-third of the population had been in their city, town or community all their lives.
- On reserves those who had moved less than 2 times over the previous five years had more favourable housing conditions than those who either never moved, or had moved more than 2 times over five years.
- Both on and off reserves, the more frequently people had moved, the worse their housing circumstances tended to be, both in terms of crowding and the need for major repairs.
- Off reserves, the more often people moved, the more often they did not meet the affordability standard.

Length of Residency

- On reserves, those who had lived for a longer time in the community were more often living in housing that needed major repairs, and those who had moved into the community more recently were less likely to live in housing that needed major repairs.
- Off reserves, those who had recently moved to the community were more likely to experience affordability problems. The longer they had lived in the community the lower the percentage falling below the affordability standard.
- On and off reserves, those who had never moved and recent movers were more likely to live in crowded households than those who had lived in the community for 2-5 years.

Reasons for Moving

- On reserves, between 54% and 63% of men and between 63% and 69% of women, depending on age, said that they moved for family-related reasons. The next most frequent reason given was for work. The proportions who moved for work were between 13% and 31% among men and between 7% and 20% among women
- Off reserves, the most frequent reasons for moving depended on age and gender. Among youth (15-24) family was the most frequent reason given among both men and women, while among those over the age of 25 work was the most frequent reason given by men while family was the most frequent reason given by women.
- On reserves, housing was mentioned as a reason for moving by 7% to 11% of women and 4% to 9% of men, depending on age.
- Off reserves, housing was mentioned as a reason for moving by 3% to 11% of women and 7% to 11% of men, depending on age.
- Social services and health care were mentioned as reasons for moving by small numbers of men and women off reserves, but the number identifying these reasons tended to increase with age.

- On reserves, 26% of those who moved to the community for work reasons lived in crowded households, compared to 31% to 35% of those who gave other reasons.

Temporary Absences from Home

- About 18% of Aboriginal people living on reserves, and about 13% of Aboriginal people living off reserves were temporarily absent from home at least once in the previous year.
- More men than women were absent from home, and the highest rates of temporary absences were among younger age groups, especially those 15-24 years old.
- Both men and women living in multiple family households had more temporary absences from home than those living in couple or non-family households.
- Those living in crowded households tended to have more temporary absences from home than those in uncrowded households.
- Among men living on reserves, 38% of those who were temporarily absent gave “work” as the reason, while another 32% gave hunting, fishing, harvesting or being on the land as the reason.
- Among women living on reserves the most frequent reasons given were to go to school (34%) or family-related (34%).

The relationships between housing needs and other variables are of particular interest. Many of these relationships have been identified in the points above. For ease of reference these points have been grouped by the type of housing need and listed below. Some of these relationships suggest that the housing need indicator is affected by other variables, such as employment and income, while other relationships suggest that the housing indicators affect other variables, such as educational attainment or health status. The following table provides an overview of these associations:

Table 55 **Summary of Findings Concerning Housing Need Indicators**		
Housing Need Indicator	**Variables that may affect housing needs**	**Variables that may be affected by housing needs**
Household Crowding (Suitability Standard)	- On/Off Reserve Residency - Household Type - Identity - Subsidization - Source of Income - Income Level - Employment - Mobility	- Insurance - Need for Modifications - Educational Attainment - Enrolment Rates
Need for Major Repairs (Adequacy Standard)	- On/Off Reserve Residency - Identity - Tenure - Subsidization - Age of Housing - Source of Income - Income Level - Employment - Mobility	- Water Safety - Detectors - Insurance - Need for Modifications - Health Status and Conditions - Need for Special Features - Educational Attainment - Enrolment Rates
Affordability or Core Housing Need	- Tenure - Subsidization - Household Type - Source of Income - Income Level - Employment - Mobility	- Chronic Health Conditions - Enrolment Rates

The relationships between housing need indicators and other variables are complex, and effects can operate in both directions in many cases. For example, higher levels of educational attainment are likely to affect income levels which in turn affect housing characteristics. On the other hand, housing characteristics may have an effect on educational attainment and enrolment rates. Similarly, those who are in good health likely to have higher incomes than those in poor health, affecting the housing they are able to afford. At the same time housing characteristics may have an effect on health. These findings suggest that a sophisticated multivariate analysis is required to identify the many variables and interactions and the direction of causation between variables.

Crowding in Relation to Other Variables

Re: Property Insurance

- On reserves only 28% of those living crowded housing were in insured housing, compared to 43% of those living in housing that was not crowded.

Re: Modifications

- The combination of living on reserves and living in either crowded housing or housing that needs major repairs, is associated with much higher percentages of dwellings that “need but don’t have” modifications.

Re: Source of Income

- On reserves, 30% of those with employment income lived in crowded housing compared to 39% of those without employment income.
- Off reserves, about 28% of those who received social assistance were living in crowded housing compared to 13% of those who did not receive social assistance.

Re: Income Levels

- Declines were seen in the percentage experiencing crowding and need for major repairs, as income increased.

Re: Employment

- On reserves, 29% of those who were employed in 2001 lived in crowded housing, compared to 35% of those who were unemployed and 38% of those who were not participating in the labour market.
- Off reserves, 13% of the employed population lived in crowded housing, compared to 20% of those who were unemployed and 19% of those who were not participating in the labour market.
- On reserves, about 39% of those who did not work in the year 2000 lived in crowded households, compared to 26% of those who worked 40 or more weeks of the year.

Re: Educational Attainment

- On reserves about 40% of those in crowded households had **not completed high school**, and 27% had **post-secondary certification**, while among those in households that were not crowded 31% had **not completed high school** and 37% had **post-secondary certification**.
- On reserve among young people 15-24, 23% of those living in crowded housing had **completed high school or higher levels of education** compared 30% of those living in uncrowded housing.

Re: Enrolment Rates

- Youth (15-24) living off reserves in **crowded** households had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those who did not live in crowded households.
- Both on and off reserves, the more frequently people had moved, the worse their housing circumstances tended to be, both in terms of crowding and the need for major repairs.

Re: Mobility

- Both on and off reserves, both those who had lived in the community all their lives, and those who had moved to the community within the last year were more likely to live in crowded households than those who had lived in the community for 2-5 years.
- On reserves, 26% of those who moved to the community for work reasons lived in crowded households, compared to 31% to 35% of those who gave other reasons.
- Those living in crowded households tended to have more temporary absences from home than those in uncrowded households.

Need for Major Repairs in Relation to Other Variables

Re: Water Safety

- On reserves 52% of those in housing needing major repairs reported water safety and/or contamination problems, compared to 42% of others.
- Off reserves 24% of those in housing needing major repairs reported water safety problems, compared to 22% of others.

Re: Detectors

- Those living in homes that needed major repairs were more likely not to have detectors, especially on reserves where 24% did not have smoke or CO detectors.

Re: Property Insurance

- On reserves 29% of those living in homes needing repairs were in insured housing, compared to 46% of those living in home in good repair.

Re: Modifications

- The combination of living on reserves and living in either crowded housing or housing that needs major repairs, is associated with much higher percentages of dwellings that “need but don’t have” modifications.

Re: Age of Housing

- On reserves 23% of housing 0-10 years old needed major repairs, compared to 36% of housing over 30 years old.
- Off reserves, 9% of housing 0-10 years old needed major repairs compared to 20% of housing over 30 years old.

Re: Source of Income

- On reserves, 44% of those with employment income lived in housing that needed major repairs compared to 52% of those without employment income.
- Off reserves 20% of those who received social assistance were living in housing needing major repairs compared to 15% of those who did not receive social assistance.

Re: Income Levels

- Declines were also seen in the percentage experiencing crowding and need for major repairs, as income increased.

Re: Employment

- On reserves, 42% of those who were employed lived in housing in need of major repairs, compared to 55% of those were unemployed and 50% of those who were not in the labour market.
- Off reserves, 14% of those who were employed lived in housing in need of major repairs, compared to 18% of those were unemployed and 17% of those who were not in the labour market.
- On reserves, 51% of those who did not work in the year 2000 lived in dwellings that needed major repairs, compared to 42% of those who worked 40 or more weeks of the year.

Re: Health Status and Conditions

- The percentage with fair or poor health was consistently higher among those living in housing that needed major repairs compared to those living in housing that didn't need major repairs. This difference increased with age.
- Those living on reserves in housing that needed major repairs consistently had slightly higher prevalence rates than others, for all the health conditions examined.
- Among on-reserve residents living in housing needing major repairs, the percentage with two or more health conditions were higher than among those living in housing that didn't need major repairs. This held true for all age groups.

Re: Need for Special Features

- Among on-reserve households, where the respondent was over 55, 32% of those living in dwellings needing major repairs included someone needing special features, compared to 20% of households where major repairs were not needed.

Re: Educational Attainment

- On reserves, those living in housing that needed major repairs had lower levels of educational attainment than those living in housing that did not need major repairs.
- On reserve among young people 15-24, 25% of those who lived in housing requiring major repairs had **completed high school**, compared to 30% of those in housing where major repairs were not needed.

Re: Enrolment Rates

- Youth (15-24) living off reserves in housing that needed **major repairs** had higher elementary-secondary enrolment rates and lower post-secondary enrolment rates than those in housing that did not need major repairs.

Re: Mobility

- Both on and off reserves, the more frequently people had moved, the worse their housing circumstances tended to be, both in terms of crowding and the need for major repairs.
- On reserves, those who had lived for a longer time in the community were more often living in housing that needed major repairs, and those who had moved into the community more recently were less likely to live in housing that needed major repairs.
- Off reserves, 13% of those who moved to the community for work-related reasons were living in housing needing major repairs, compared to 14% to 18% of most others.

Affordability and Core Housing Need in Relation to Other Variables

Re: Source of Income

- Among the off-reserve population, about 20% of those with employment income did not meet the affordability standard, compared to 37% of those without employment income.
- Similarly, 15% of those living off reserves with employment income were in core housing need, compared to 31% of those without employment income.
- Off reserves 52% of those receiving social assistance were living in households that did not meet the affordability standard, compared to 21% of those who did not receive social assistance.
- Off reserves 31% of social assistance recipients were in core housing need, compared to 14% of those not receiving social assistance.

Re: Income Levels

- As income increased from less than $5,000 to more than $10,000, the percentage of households that did not meet the affordability standard declined from about 76% to 20%.

Re: Employment

- Off reserves, 19% of the employed population were in households that did not meet the affordability standard, compared to 33% of those who were unemployed and 35% of those who were not participating in the labour market.
- Overall, 13% of off-reserve residents who were employed were in core housing need, compared to 28% of those were unemployed and 30% of those who were not in the labour market
- Off reserves, as the number of weeks worked increased, the proportion who lived in households that did not meet the affordability standard declined.
- Off reserves, the proportion who were experiencing core housing need declined strongly as weeks worked increased, from 33% among those who didn’t work, to 10% among those who worked 40 or more weeks.

Re: Chronic Health Conditions

- Those living in affordable housing had lower prevalence of chronic conditions. Similarly those who were not in core housing need had lower prevalence rates than others.

Re: Enrolment Rates

- Off reserves, youth (15-24) who were living in households that did not meet the affordability standard had higher elementary-secondary enrolment rates, but slightly lower post-secondary enrolment rates, compared to those in households that met the affordability standard.

Re: Mobility

- Off reserves, the more often people moved, the more often they did not meet the affordability standard.
- Off reserves those who had recently moved to the community were more likely to experience affordability problems. The longer they had lived in the community the lower the percentage that did not meet the affordability standard.

7.2 Conclusions

This report has provided a wide-ranging set of data describing the circumstances of Aboriginal people in Canada in 2001 based on the Aboriginal Peoples Survey. Many interrelationships between housing, demographic, employment, income, education and health variables have been explored. The study was also an exploration of the APS as a source of data and its potential to supplement data that may be obtained from the Census of Canada concerning Aboriginal people. The findings are suggestive of relationships among factors or variables, but not definitive.

Based on these findings it appears that housing needs may be affected by geographic location, employment, income levels and mobility. Housing needs may, in turn, affect many other aspects of individuals and households, including such things as health, educational attainment and enrolment rates. However, these suggestive findings need to be considered as questions to be explored and confirmed or refuted by other research.

This is particularly true in light of the problems presented by the data source which combines individual-level data with household-level data in such a way that the household characteristics may or may not apply to the individual. For example, the household type may be a couple family, but the individual who has responded to the survey may be a child or lone parent within the larger household. More precise design of custom tabulations might be able to address some of these problems through linking of census data (for example family status) with APS data. However, the APS has some limitations that cannot be overcome in this way, because of the flow of the survey making it impossible at times to identify how certain variables apply to the full population. (The series of questions concerning educational attainment and the need

for special features are examples of this type of problem.) In addition, as noted in the introduction, the APS did not achieve a fully representative sample of the Aboriginal population of Canada, and must be treated with caution.

References

Stewart Clatworthy, **Aboriginal Housing Conditions and Needs On Reserve**, prepared for Indian and Northern Affairs Canada and Canada Mortgage and Housing Corporation, September, 2008.

Vivian O'Donnell and Heather Tait, ***Aboriginal Peoples Survey 2001 – Initial findings: Well-being of the non-reserve Aboriginal population***, September 2003, Statistics Canada Catalogue no. 89-589-XIE.

Vivian O'Donnell and Heather Tait, "Well-being of the non-reserve Aboriginal population," **Canadian Social Trends**, Spring 2004, pages 19-23.

Appendix

Summary of Research Concerning the Effects of Housing on Health and Education

2009

Prologica Research
Winnipeg, Manitoba

Appendix to:
Housing Profile of Aboriginal People in Canada,
Based on the 2001 Aboriginal Peoples Survey

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Research Concerning the Effects of Housing on Health and Education

The home is where people are trying to raise families, the water they drink daily, a quiet place for study – these things are vital to health and happiness.

-- The Royal Commission on Aboriginal Peoples, 1996*a*: 371

1. Introduction

While scores of studies in both medicine and the social sciences have investigated links between housing and the health or educational success of residents, many admit that the presence of confounding factors makes establishing causal links difficult. Residents of "poor" housing may also suffer other deprivations so that isolating the effect of housing alone as a risk factor is very difficult. Others have noted that poor housing may simply be an indicator of lower income, rather than a causative factor on its own. Nevertheless, as one reviewer of the literature noted, "many commentators… take a more pragmatic approach to the research evidence, which side-steps empirical uncertainty and accepts that proof of causality is not essential in demonstrating the importance of housing for health." (Wilkinson, 1999)

Researchers use a variety of variables to represent housing conditions. For example, *crowding* is measured internationally as number of persons living in a dwelling divided by the number of rooms, or persons per room. In Canada, CMHC, provinces and territories use a definition of crowding based on the number of bedrooms required for the size and composition of the household.

The *condition* or quality of housing can be measured by its amenities, or the functionality and upkeep of the major building systems. For example, Statistics Canada asks whether a dwelling requires major repairs, such as "defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings"; minor repairs, such as "missing or loose floor tiles, bricks or shingles, defective steps, railing or siding"; or just regular maintenance, such as "painting, furnace cleaning". CMHC measures dwelling *adequacy* using only the need for major repairs from this question. Some other researchers combine major and minor repairs into a housing quality variable.

Other characteristics of housing quality — whether it has indoor toilet facilities, hot running water, drinkable water, air quality, presence of mold, adequate heating, or a quiet place to study -- have variously been used in conjunction with measures of residents' health or education.

Similarly, there are numerous measures of the *affordability* of housing, from CMHC's concept of core housing need, to simple measures such as the proportion of household resources devoted to housing costs.

In addition, housing measures may be expressed as either the proportion of households or the proportion of the population that is living in particular housing conditions.

The studies and analyses summarized here are all from peer-reviewed or government-published sources, and thus variables have, at minimum, face validity and reliability. However, the consistency of different measures of the same underlying concept is not addressed here.

This literature review examines the physical structure that is the 'home' and its association with health and education. The home is the central hub of everyday living. We breathe its air, we touch its surfaces, and it shapes and forms how we interact with its other inhabitants, and how we move through it. For most Canadians, housing is their single largest expenditure every month. For low income people, the cost of housing can deprive them of funds for other necessities such as food and transportation. (Lubell, & Brennan, 2007, Gagné, 2009) The need to find a better quality of housing or a home that is affordable can lead to families moving frequently and fracturing relationships with family, friends, neighbours, and schools. The relationship between the home and its occupants is complex and is perceived to affect or moderate an individual's health, but how this happens is not well understood. (Sandel & Wright 2006) Individuals and families who live in overcrowded and/or poor housing conditions and who are confronted by unaffordable housing often experience a number of deprivations; therefore, isolating and analyzing the effects of any one factor is very difficult. (James, 2007, Wilkinson, 1999)

2. Literature Search Methodology

This review was designed to identify research linking housing conditions and other socio-economic conditions with health, and academic success. The starting point was our previous knowledge of housing research and references provided by CMHC. The literature search used PubMed to access the Medline database. The search was widened beyond peer-reviewed publications through an internet search of free text using the Google search engine. Search terms used were as follows: housing, health, mortality, ventilation, education, Aboriginal, Métis, First Nation, Inuit, children, mobility, crowding and mental health. Citations within articles were searched to identify additional references that would inform this review. Relationships were explored between housing conditions, household and individual characteristics, education, health, residential mobility and mortality. Particular attention was paid to articles distinguishing between on reserve and outside reserve populations. When the articles and reports were reviewed, we looked for associations between housing conditions and education success, poor health and, or, mortality.

Findings are presented in four sections below; the first provides some of the evidence regarding the housing conditions of Aboriginal people; subsequent sections describe the research on Housing and Respiratory Health, Housing and Other Health Conditions, and Housing and Education.

3. Aboriginal Housing Need

There is reason to believe that the patterns and intensity of housing need and its effects may be greater among the Aboriginal population than among other Canadians. A greater percentage of Canada's Aboriginal population lives below the poverty line and this disparity in incomes can help to explain why more Aboriginal households are in core housing need compared with their non-Aboriginal counterparts. Aboriginal households devote a greater percentage of their income to finding a suitable home (CMHC, 2006) and, as a result, share a disproportionate amount of the burden created by poverty and poor housing conditions.

Canada Mortgage and Housing Corporation (CMHC) examines housing needs from three standpoints: housing adequacy, suitability and affordability. Briefly, a household is considered to be in core housing need if it fails to meet one or more of these standards, and if acceptable housing meeting all three standards is not available for a cost of less than 30 percent of household income. (CMHC, 2002) Using 2006 census data, CMHC found that 20 percent of off-reserve Aboriginal households were in core housing need compared to 12 percent of non-Aboriginal households. Statistics Canada reported that, in 2006, about 44 percent of First Nations people lived in a home which required major repairs if it was on a reserve, compared to about 17 percent of off-reserve First Nations people and7 percent of non-Aboriginal people. (Statistics Canada, 2008)

Crowding may affect an individual in a number of ways ranging from respiratory problems, if there is inadequate ventilation, to mental health issues or an impaired ability to do well in school. (Barnes, Butt, & Tomaszewski, 2008) The effects of living in crowded circumstances may differ by gender. (Barnes, Butt, & Tomaszewski, 2008). In a World Health Organization report, it was noted that architectural features and overcrowding are believed to contribute to over 11 percent of unintentional injuries among children. (Thomson, Petticrew & Morrison, 2001) In order to capture the numerous ways in which individuals may be affected by crowding, it will be included in each discussion of a particular health condition where relevant.

Inuit, Métis and First Nations peoples experience a disproportionate amount of crowding in comparison to other Canadians. In 2006, CMHC found 6 percent of off-reserve Aboriginal households to be below the suitability (crowding) standard, compared to 4 percent of non-Aboriginal households. The housing situation in northern Canada has been improving, but rates of crowding among the Inuit remain very high. In their work, based on the 2001 Aboriginal Peoples Survey, O'Donnell and Tait note that four-fifths of Inuit lived in the Canadian Arctic, and more than one half (53 percent) of Inuit in the Canadian Arctic were living in crowded conditions; this figure was down from 61 percent five years earlier. However, in Nunavik, a mainly Inuit region in northern Quebec, the crowding situation did not improve between 1996 and 2001. (O'Donnell & Tait, 2003) According to the 2006 Census, 31 percent of all Inuit in Canada lived in crowded homes, compared to 3 percent of the total population in the country. At the time of the 2006census, nearly four in 10 Inuit in Nunangat (the Inuit homelands in northern Canada) were living in crowded conditions,

and of the Inuit children under the age of 15, 40 percent lived in crowded homes, compared to 7 percent of all children in Canada. (Tait, 2008)

In 2006, the Métis were still about twice as likely as non-Aboriginal people to live in a crowded home or to live in a home in need of major repairs. (Cloutier, Costa, Germain, Janz, Levett, Loder, et al., 2006). Also in 2006, First Nations people in Canada were five times more likely than non-Aboriginal people to live in crowded homes. At that time, 15 percent of First Nations people lived in a crowded dwelling compared with three percent of non-Aboriginal people. Crowding was especially common on reserves. Just over one-quarter (26 percent) of on-reserve First Nations people lived in crowded conditions. In fact, a large percentage of the on-reserve population lived in homes that were very crowded. One in 10 (11 percent) lived in a dwelling with 1.5 people or more per room. (Statistics Canada, 2008) These statistics demonstrate that Aboriginal people, whether living on or off reserves, generally live in more crowded housing conditions than Canadians as a whole.

4. Housing and Respiratory Health

Of the many possible interactions between housing and poor health, the greatest amount of evidence has been accumulated on the associations between ventilation, respiratory difficulties and increased mortality, although the pathways that connect housing to mortality are not well understood. (Centers for Disease Control and Prevention, 2002, Wilkinson, 1999) Mortality among low-income people is higher than among high-income people**.** (Wolfson, Kaplan, Lynch, Ross & Backlund**,** 1999; Ross, Wolfson & Dunn 2000) Dedman and colleagues used the Boyd Orr cohort to investigate the association between housing quality and mortality. The Boyd Orr cohort consisted of the children of 1,343 households who participated in the Carnegie survey of family diet and health carried out in 16 centres in England and Scotland between 1937 and 1939. It was been possible to trace 4,301 (86 percent) people through the NHS Central Register. In Dedman's study, the associations between five measures of housing conditions (cleanliness, water source, crowding, toilet facilities and ventilation) during childhood and subsequent mortality were examined. For all causes of mortality the adequacy of ventilation was the only variable for which conventional levels of statistical significance were found. (Dedman, Gunnell, Davey & Frankel, 2001) A more recent review of the literature in the United Kingdom and other countries concluded that children living in damp, mouldy homes are between one and a half and three times more prone to coughing and wheezing – symptoms of asthma and other respiratory conditions – than children in dry homes. (Barnes, Butt, & Tomaszewski, 2008)

In Canada, there is further evidence to indicate that poor quality housing contributes to respiratory illnesses. A study done for the Royal Commission on Aboriginal Peoples of Canada reported chronic asthma, or bronchitis, in over 19 percent of Aboriginal Canadians under the age of fifteen. (Sin, Wells, Svenson, & Man, 2002) In an effort to gain a better understanding of housing and asthma in Aboriginal communities, Berghout et al. undertook a study in which housing conditions were examined in the homes of asthmatic children on the Elsipogtog Reserve. (Berghout, Miller, Mazerolle, O'Neill, Wakelin & Mackinnon, 2005)

The houses selected for this study were, on average, cleaner than many other houses studied in Canada, but many had more serious maintenance problems that were resulting in mould. These authors could not reach any conclusions about the association between mould and asthma but they recommended that a systematic evaluation of mould damage, on a community-wide basis, is a useful process to use when establishing priorities for housing repairs. Other evaluative criteria may include an analysis of who lives in the home.

Young children spend a greater amount of time indoors than adults and are at a greater risk from toxins found in poorly ventilated spaces. Small children are uniquely vulnerable to poor housing conditions due to their smaller size and higher metabolic rates. (Wright & Muhajarine, 2008) Kovesi and colleagues reported that the rate of hospitalization for severe lower respiratory tract infection, including bronchiolitis and pneumonia caused by respiratory syncytial virus, in Inuit and Alaska Native children in northern North America appear to be the highest ever reported with rates of 306 per 1000 in the Baffin region.

In an analysis of health data on 474 First Nations communities, crowding, measured in persons per room, was found to be significantly related to the occurrence of multiple cases of tuberculosis, along with income, community size, and community isolation. A strong interaction effect was found for crowding and income. (Clark, Riben & Nowgesic, 2002) The authors also noted that “it is possible that communities with over-crowded housing also experience...risk factors for progressions from TB infection to disease [including] substance abuse and undernutrition.”

In two separate studies, Kovesi and colleagues found reduced air change rates and high occupancy levels (crowding) may increase the risk of respiratory infections. (Kovesi, Creery, Gilbert, Dales, Fugler, Thompson, et al., 2006, Kovesi, Gilbert, Stocco, Fugler, Dales, Guay, et al et al., 2007) These findings are supported by numerous other research studies. (Wilkinson, 1999, Centers for Disease Control and Prevention, 2002) For this reason, there is a need to ensure that the ventilation in homes meet minimum standards as a measure to reduce the prevalence of respiratory problems amongst Aboriginal peoples.

While always important, indoor air quality and ventilation is of greater importance in cold climates. Canada is a cold climate country where about 90 percent of a person’s time is spent indoors. (Dales, Ling, Wheeler & Gilbert, 2005, Wright, 2008) For this reason, people have more exposure to airborne substances in the interior of their homes than to those found in outside air. The Institute of Medicine (IOM) of the National Academy of Sciences completed a critical review of the scientific literature pertaining to the association of indoor dampness and mould contamination with adverse health effects. This meta-analysis found that building dampness and mould were associated with approximately 30-50 percent increases in a variety of respiratory and asthma-related health outcomes. (Fisk, Lei-Gomez, & Mendell, 2007) However, attempts to explain rising rates of asthma solely through the physical environment have been unsuccessful and for this reason Sadler points out that psychological factors may play a role in how social environments, such as housing, "get under the skin" to influence health. (Sadler, & Wright**,** 2005)

In *A Statistical Profile on the Health of First Nations in Canada: Self –rated Health and Selected Conditions, 2002 to 2005*, Health Canada found that Aboriginal TB patients were younger than Canadian-born non-Aboriginal cases, “possibly reflecting different modes or probabilities of transmission (e.g., overcrowding and poor housing conditions)”. (Health Canada, 2009)

In summary, crowded living conditions and poor ventilation have been implicated in many studies of infectious respiratory illnesses. The Public Health Agency of Canada’s Canada Communicable Disease Report (CCDR) concludes that crowding, poor air quality within homes as a result of inadequate ventilation, and the presence of mould and smoke contribute to poor respiratory health in general, and have been implicated in the spread and/or outcome of tuberculosis. (CCDR, 2007)

5. Housing and Other Health Conditions or Diseases

Individuals who live in sub-optimal housing conditions are at greater risk for a multitude of adverse physical and mental health effects that will now be discussed in greater detail. (Kaase, 2007, Lubell, & Brennan, 2007)

5.1 Other Infectious Diseases

Crowded living conditions can lead to the transmission of infectious diseases such as middle ear infections, gastrointestinal infections and hepatitis A. (Statistics Canada, 2008, Centers for Disease Control and Prevention, 2002, Wilkinson, 1999).

Crowding can turn a home into an incubator for infectious diseases. In an on-reserve study in Manitoba, it was found that the incidence of shigellosis (an infectious bacterial disease that causes diarrhea, fever, and stomach cramps) and hospitalization were 29 and 12 times as high, respectively, as those for the rest of the population. Household crowding, lack of piped water, and inadequate sewage disposal were significantly associated with an increased incidence of shigellosis. (Rosenberg, Kendall, Blanchard, Martel, Wakelin, Fast, 1997)

In several studies of Inuit children in Inukjuak, Nunavik, middle ear disease (*otitis media*) was found to be associated with number of persons per bedroom and number of siblings with a history of the disease, as well as other poor health practices. (Bruneau, Ayukawa, Proulx, Baxter, Kost, 2001)

In a double blind study of housing before and after extensive renovation and repair, moderate improvement, or no improvement to housing, Hunt found a strong relationship between children's health (amount of diarrhea, wheezing and persistent coughing) and housing quality. (Wilkinson 1999)

5.2 Mental Health and Child Development

Health experts maintain that inadequate (poor condition) or unsuitable (crowded) housing can be associated with a host of health problems, and may also increase risk for injuries, mental health problems, family tensions and violence. (Statistics Canada, 2008, O'Donnell & Tait, 2003) There have been numerous attempts to gain an understanding of whether or not there is a connection between the building where an individual resides, and their mental health.

A study of women in West London found that housing density was associated with psychological symptoms in a "j-shaped relationship", i.e. symptoms initially decreased with greater density, and then increased as crowding increased. The relationship remained even when social class, unemployment and the presence of children were controlled. (Gabe and Williams, cited in Wilkinson, 1999)

In Scotland, Barnes found that three in ten (29 percent) children who persistently lived in housing in a poor state of repair had been bullied inside or outside of school within the past year, compared to 12 percent of those who lived in better housing. (Barnes, Butt, & Tomaszewski, 2008) Bullying has been recognized as victimization, and has been shown to lead to low psychological well-being, physical unwellness, poor social adjustment and violent behaviour. (Rigby, 2003, Barker, Arseneault, Brendgen, Fontaine & Maughan, 2008, Tanzola, 2006) Moreover, bullying has been identified as a significant factor on the causal pathway to unintentional injury or suicide in adolescents. (Valle, Gosney & Sinclair, 2008)

In Canada, there have been attempts to gain an understanding of whether or not there is a connection between the building where an individual resides, and their mental health. Gifford and Lacombe assessed the socio-emotional health of 95 Canadian children, and the quality of each child's housing, considering up to 309 aspects of the residence and immediate neighbourhood. They found an association between children's socio-emotional health and the physical condition of their residences' interior, exterior, and immediate neighbourhoods. This relationship was significant after controlling for household income, parental education and mental health status, the child's gender, and time lived in the residence. Furthermore, none of these five factors moderated the relationship, which is evidence of its robustness. (Gifford, & Lacombe, 2006) The conclusions from this study are preliminary and no causal conclusions can be drawn because children were not randomly assigned to better or worse housing, but it may indicate that housing is related to children's behavioural problems. This assertion is supported by evidence from the United Kingdom where research on child health examined the physical conditions of accommodation and health outcomes. These researchers found a clear association between the length of time a child spent in inadequately heated accommodation or accommodation in poor condition and having a long-standing illness or disability. The list of mother-reported ailments that were correlated with housing characteristics included physical problems, skin conditions and allergies, respiratory problems and mental illnesses in the children. (Barnes, Butt, & Tomaszewski, 2008)

In their study of 277 Grade 3 to Grade 5 children, Evans and colleagues used data that had been collected on the socio-emotional well-being of children as part of a larger study, as well as using an observer-based, standardized index of housing quality. These researchers found that independent of household income, third- through fifth-grade children residing in poorer quality housing had more psychological symptoms, and less task persistence than their counterparts living in better quality housing. (Evans, Saltzman & Cooperman, 2001)

Notwithstanding the condition of a residence, crowding has been shown to be associated with adverse psychological symptoms in children. (Wood et al 1993, Adam) A negative relationship has been found between noise, confusion, and overcrowding in a child's environment and measures of cognitive-intellectual development between five months and five years of age. (Evans, Saltzman & Cooperman, 2001) Moreover, living in an overcrowded situation has been correlated with aggressive behaviour and decreased social skills in children. (Slaby, & Roedell, 1982) In Lowry's review of literature on children

and crowding, she found that some children living in noisy, confused environments receive too much stimulation for optimal development; these children are actually considered "stimulus-deprived." (Lowry, 1993)

In an analysis of data from the National Longitudinal Survey of Children and Youth, Jackson and Roberts found that children who were living in “problem housing” over two observation periods (1994 and 1996) were less likely to be in excellent health and more likely to be asthmatic than counterparts living in dwellings with no problems. Two to four years olds in problem housing were more likely to have delayed motor and social development scores , six and seven year olds were more likely to have delayed Receptive Language scores, and four to 11 year olds were more likely to suffer from aggression if they had lived in problem housing over both periods. Further, when exposure to problem housing was ranked on a gradient involving the number of housing problems (crowded or in disrepair) and years of exposure (none, one or two) several indicators showed a steadily rising gradient. (Jackson, Roberts, 2001)

Living in a crowded environment has been shown to cause psychological distress in adults as well as in children and this finding holds across cultures. (Evans, Lepore, Allen, 2000) In their study of housing conditions and mental health, Hopton and Hunt found that being in the continual presence of others imposes a mental strain on both children and adults and that people need time to be alone. (Hopton & Hunt, 1996) Fuller and colleagues studied a random sample of 2017 households in Bangkok, Thailand, and their findings suggest that crowding, as a chronic source of stress, constitutes a major threat to psychological well-being. (Fuller, Edwards, Vorakitphokatorn, & Sermsri, 1966) Other literature suggested that when families are forced to double up because there is not enough housing and, or, they cannot afford a sufficiently large home to accommodate the needs of their family, their levels of psychological stress will increase. Living in a crowded environment may make it difficult for individuals to manage daily stressors and maintain supportive relationships, and this may result in increased levels of psychological distress. (Evans, Wells, & Moch, 2003)

6. Housing and Education

Literature on the links between poor housing and education achievement focus on several possible pathways. Lubell points out children who are in poor health due to their housing will have a higher absentee rate from school and this will make it harder for them to succeed academically. (Lubell, & Brennan, 2007) In Evans and colleague’s investigation of whether or not overall housing quality could be related to children’s socio-emotional development, they found a correlation between poor housing and children’s psychological health on a standardized instrument, along with lower task persistence or motivation than their counterparts living in better quality housing. Housing quality was measured using an observer-based, standardized index that included structural quality, privacy, indoor climate, hazards, cleanliness/clutter, and children’s resources. (Evans, Saltzman & Cooperman, 2001) It is likely that children with lessened motivation to complete tasks will do less well in school. These findings support Hertzman’s findings that low socio-economic status during childhood may interfere with cognitive and behavioral development as well as being

a modifiable risk factor for lack of readiness for school. (Hertzman, 2001) However, these studies are only a beginning and there needs to be more research on how housing might affect a child's development.

6.1 Educational Performance and Crowding

As has already been documented in this review, there is research in which living in a crowded home has been shown to be negatively associated with cognitive development and social skills. (Jackson, Roberts, 2001) Children affected by these developmental delays do less well in an academic system. One study found elementary children from higher-density homes were behind in reading acquisition compared to children from low-density homes; moreover, children who lived in a crowded environment were one grade behind the norm by grade seven and were less apt to finish high school. (Braconi, 2001, Lubell, & Brennan, 2007) Other research has shown that children who do not have a quiet place within their home in which to do homework are less likely to complete their assignments, which impinges on their ability to achieve academic success. (Brennan, 2007) In an examination of data from the New York City Housing and Vacancy Survey, Braconi found large negative impacts of crowding. In this study, it was estimated that, "crowding reduces young males' probability of completing high school by almost 11 percentage points, and reduces females' by about 6 percentage points." (Braconi, 2001) This research indicates that children and their ability to succeed academically are negatively impacted by living in crowded circumstances.

6.2 Educational Performance and Residential Mobility

Researchers have been attempting to identify specific factors or conditions that contribute to lack of school readiness or failure to succeed that may account for differences in performance and success across socioeconomic levels. (Brownell, Roos, Fransoo, Guèvremont, MacWilliam, Derksen, et al., 2006, Lubell, & Brennan, 2007) Research has shown that individuals or families move more often when a house is in a poor condition. Of the households which moved in the year prior to the 2001 Census, 42 percent were living below CMHC's housing standards (affordability, suitability and/or adequacy) compared to 28 percent of non-mover households. Thirty one percent of the mover households were experiencing housing affordability problems compared to 18 percent of non-mover households, and nine percent were crowded compared to six percent of non-mover households. (CMHC, 2009)

Frequent moving or residential mobility is one factor that has been shown to correlate with academic success. Students from low income households are more apt to be frequent movers due to an inability to find housing that is affordable and of good quality. (Kaase, 2005, Lubell, & Brennan, 2007) Low income students who live in a household with a single parent are at the greatest risk of being frequent movers. (Kaase, 2005) Residential instability and/or homelessness are associated with children's poor attendance and

performance in school and developmental delays. (Anderson, 2003, Bassuk, & Rosenberg, 1990, Brownell, De Coster, Penfold, Derksen, Au, Schultz, et al., 2008, Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993)

Hartman and Leff used a 1994 U.S. General Accounting Office study to discuss the effects of residential mobility on education performance. These authors found that over a period of six years, students who moved more than three times fell a full academic year behind stable students and that high mobility reduced the likelihood of high school completion. Other research suggests that a school change in the final years of high school has a deleterious effect on math achievement comparable to dropping out of high school, among both boys and girls. (Lubell, & Brennan, 2007) Moreover, Hartman noted that high mobility rates not only negatively affect the educational outcomes of transient students but, possibly, their more stable classmates. (Hartman, 2002) There is evidence to suggest that not only do individual students do worse if they change schools, but all students at schools with high student mobility rate achieve less than students at schools with a stable student population. It is hypothesized that this is because teachers need to do more review work resulting in an overall flattening of curricula and because mobile students require more staff time, leaving less staff time for other students. (Hartman & Leff, 2002, Kaase, 2005)

Residential mobility reduces academic performance, increases the likelihood of grade retention, and reduces high school completion rates. (Lubell, & Brennan, 2007) Frequent moving is a documented problem among low income families in Manitoba. In 1995, a Manitoba Health document reported that some Aboriginal children had attended 13 schools by age 11. (Postal, 1995) In 2002, similar patterns of mobility were documented in two Manitoba reports. In one of the reports, “Aboriginal Education in Winnipeg Inner City High Schools,” Silver and his colleagues reported that rates of mobility were extremely high and that housing problems resulted in children constantly leaving one school for another. (Silver, Mallett, Greene & Simard, 2002) Repeated disruption in the child’s school year creates a situation in which it is difficult for a child to succeed. There are many variables that can lead to a child’s failure to do well in school, but improving the housing in which young children live could lead to fewer mental health problems, improved physical health, less mobility and better success at school.

7. Conclusion

A review of the literature on the association between the characteristics of an individual’s home and their health and educational success found that housing condition, ventilation and/or, crowding within a home are linked to greater morbidity, greater difficulties in achieving academic success, and a higher likelihood of suffering from mental health problems. Moreover, there is some evidence that the longer a person lives in poor accommodations, the higher the likelihood of poor health or lowered capabilities. As governments become increasingly invested in their citizens achieving academic success and improving population health, there needs to be a better understanding of the pathways between education, health and housing. Around the world, researchers are seeking the mediating factors and to explain the associations that have been found between these factors (James, 2007, Centers for Disease Control and Prevention, 2002, Dunn, 2002,

Wilkinson, 1999). Perhaps, as a Scottish researcher, Diana Wilkinson succinctly notes in , Poor Housing and Ill Health: A Summary of Research Evidence, “it may be more productive to accept that associations exist, that housing has a role to play in both physical and mental health, and that some types of house conditions are more perilous than others” (Wilkinson, 1999)

Bibliography

Acevedo-Garcia, D., Osypuk, T. L., Werbel, R. E., Meara, E. R., Cutler, D. M., & Berkman L. F. (2004). *Does Housing Mobility Policy Improve Health?,* 15(1). Accessed Sept. 7 2008 from: http://www.fanniemaefoundation.org/programs/hpd/v15i1-index.html

Adam, E. K. (2004). Parental and Residential Stability and Children's Adjustment, *Current Directions in Psychological Science,* **13(5):210 – 213.**

Adelson, N. (Mar-Apr 2005). The embodiment of inequity: health disparities in aboriginal Canada, *Can J Public Health*, 96 Suppl 2:S45-61.

Al Mamun, A., Lawlor, D. A., Alati, R., **O'Callaghan, M. J., Williams, G. M., & Najman, J. M.** (2006). Does maternal smoking during pregnancy have a direct effect on future offspring obesity? Evidence from a prospective birth cohort study. *Am J Epidemiol,* 164:317–25. Accessed June 6, 2009 from: http://aje.oxfordjournals.org/cgi/content/abstract/164/4/317

AMC Health Information Research and Governance Committee, Elias, B., & LaPlante, J. (2006). *Manitoba First Nations Regional Longitudinal Health Survey (RHS) Report (2002/03)*. Assembly of Manitoba Chiefs. Accessed Sept. 7 2008 from: http://www.manitobachiefs.com/issue/health.html

Anderson, L. M., Shinn, C., Fullilove, M. T., Scrimshaw, S. C., Fielding, J. E., Normand, J., et al. (2003). The effectiveness of early childhood development programs; a systematic review. *Am J Prev Med,* 24(3S):32 - 46

Armstrong, R. P. (June 1999). *Geographical Patterns of Socio-Economic Well-being of First Nations Communities Rural and Small Town Canada* (Analysis Bulletin Catalogue no. 21-006-XIE), Ottawa, Ontario: Statistics Canada. Accessed Sept. 7 2008 from: http://www.statcan.ca/english/freepub/21-006-XIE/21-006-XIE1999008.pdf

Armstrong, R. P. (March 2001). *The Geographical Patterns of Socio-economic Well-being of First Nations Communities Agriculture and Rural Working Paper Series* (Working Paper No. 46 Catalogue no. 21-601-MIE01046). Accessed Sept. 7 2008 from: http://www.statcan.ca/english/research/21-601-MIE/21-601-MIE2001046.pdf

Backlund, E., Sorlie, P. D., & Johnson, N. J. (1999). A Comparison of the Relationships of Education and Income with Mortality: The National Longitudinal Mortality Study. *Social Science and Medicine,* 49:1373-84.

Barker, E. D, Arseneault, L., Brendgen, M., Fontaine, N., Maughan, B. (Sept 2008). Joint development of bullying and victimization in adolescence: relations to delinquency and self-harm. *J Am Acad Child Adolesc Psychiatry*, 47(9):1030-8

Barnes, M., Butt, S., & Tomaszewski, W. (Sept 2008). *The Dynamics of Bad Housing: The impact of bad housing on the living standards of children.* London, U.K.: National Centre for Social Research.

Barnes, M., Lyon, N., & Conolly, A. (Sept 2009). *The living standards of children in bad housing, Research Findings*. London, U.K.: National Centre for Social Research. Accessed May 17, 2009 from http://www.natcen.ac.uk/natcen/pages/publications/NC347_Findings-Badpercent20Housing.pdf

Bassuk E.L., & Rosenberg, L. (1990). Psychosocial Characteristics of Homeless Children and Children with Homes. *Pediatrics,* 85(3): 257-261.

Berghout, J., Miller, J. D., Mazerolle, R., O'Neill, L., Wakelin, C., Mackinnon, B., et al. (2005). Indoor Environmental Quality in Homes of Asthmatic Children on the Elsipogtog Reserve (NB). *Canada International Journal of Circumpolar Health,* 64(1): 77.

Braconi, F. (2001). Housing and Schooling. *The Urban Prospect*, New York, NY: Citizen's Housing and Planning Council.

Brennan, M. (2007). *The Positive Impacts of Affordable Housing on Education: A Research Summary*. Centre for Housing Policy. Accessed May 23, 2009 from: http://www.practitionerresources.org/cache/documents/651/65111.pdf

Brownell, M., Roos, N., Fransoo, R., Guèvremont, A., MacWilliam, L., Derksen, S., et al. (2004). *Manitoba Child Health Atlas 2004: Inequalities in Child Health: Assessing the Roles of Family, Community, Education, and Health Care*. Manitoba Centre for Health Policy. Accessed Sept. 7 2008 from: http://www.umanitoba.ca/

Brownell, M., Roos, N., Fransoo, R., et al. (2006). Is the Class Half Empty? A Population-Based Perspective on Socioeconomic Status and Educational Outcomes. *IRPP Choices,* 12 (5). Accessed Sept. 7 2008 from: http://www.irpp.org/choices/archive/vol12no5.pdf

Brownell, M., De Coster, C., Penfold, R., Derksen, S., Au, W., Schultz, J., et al. (2008). *Manitoba Child Health Atlas Update*. Manitoba Centre for Health Policy. Accessed May 20, 2009 from: http://mchp-appserv.cpe.umanitoba.ca/reports/child_inequalities/5_Healthy_Child_Manitoba_Indicators/hb_percent_region_10DEC2004.pdf

Bryant, T. (March 2003). The Current State of Housing in Canada as a Social Determinant of Health. *Policy Options*, 53. Accessed Sept. 7 2008 from: http://www.irpp.org/po/archive/mar03/bryant.pdf

Bruneau, S, Ayukawa, H., Proulx, JF, Baxter, JD, Kost, K (2001) Longitudinal observations (1987-1997) on the prevaluence of middle ear disease and associated risk factors among

Inuit children of Inukjuak, Nunavik, Quebec, Canada. *International Journal of Circumpolar Health* 2001;60, 632-9.

Canada Mortgage and Housing Corporation. (Sept 2002). *Special Studies on 1996 Census Data:*
Housing Conditions of North American Indian, Métis and Inuit Households in Canada (Socio-economic Series 55-10). Accessed May 5, 2007 from: http://www.cmhc-schl.gc.ca/publications/en/rh-pr/socio/socio55-10-e.pdf

Canada. RCAP. (1996). *Perspectives and Realities: Women's Perspectives.* 4(2). Retrieved November 24, 2008 from: http://www.ainc-inac.gc.ca/ch/rcap/sg/sj7_e.html

Canada Mortgage and Housing Corporation. (2001). *Children and Youth in Homeless Families: Shelter Spaces and Services* (Socio-economic Series 80). Accessed Sept. 29, 2008 from: http://www.cmhc-schl.gc.ca/odpub/pdf/62492.pdf

Canada Mortgage and Housing Corporation. (2002). *Effects of Urban Aboriginal Residential Mobility* (63071). Accessed Sept. 29, 2008 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000032&productID=00000000320000000041

Canada Mortgage and Housing Corporation. (2003). *Housing Quality and Children's Socioemotional Health* (Socio-economic Series 03-02). Accessed Sept. 29, 2008 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000032&productID=00000000320000000041

Canada Mortgage and Housing Corporation. (2003). *Special Studies on 1996 Census Data: Housing Conditions of North American Indian, Métis and Inuit Households in Canada* (63057). Accessed Sept. 29, 2008 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000032&productID=00000000320000000041

Canada Mortgage and Housing Corporation. (2004). *Housing and Population Health - Research Framework*. Accessed Sept. 29, 2008 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000043&productID=00000000430000000025 63463

Canada Mortgage and Housing Corporation. (2004). *Quality of Location and Quality-of-Life in Central Montreal Neighbourhoods* (63380). Accessed Sept. 29, 2008 from: http://www.cmhc-schl.gc.ca/odpub/pdf/63380.pdf

Canada Mortgage and Housing Corporation. (2005). Households Living On-reserve. *Canadian Housing Observer*. Accessed Sept. 29, 2008 from: http://www.cmhc-

schl.gc.ca/en/corp/about/cahoob07/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=143861

Canada Mortgage and Housing Corporation. (2005). *An Exploration of Housing Options for Aboriginal People in Edmonton, Alberta and Winnipeg, Manitoba* (Socio-economic Series 05-034). Accessed Sept. 29, 2008 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000032&productID=00000000320000000041

Canada Mortgage and Housing Corporation. (2006). *Urban Aboriginal Households: A Profile of Demographic, Housing and Economic Conditions in Canada's Prairie and Territories Region* (Socio-economic Series 06-024). Accessed Sept. 29, 2008 from: http://www.cmhc-schl.gc.ca/odpub/pdf/64804.pdf

Canada Mortgage and Housing Corporation. (2009). *2001 Census Housing Series: Issue 14—Household Mobility and Core Housing Need* (Socio-economic Series 09-007). Accessed May 22, 2009 from: https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&z_category=0/0000000150

Canadian Institute for Health Information. (2005). *Socio-Demographic and Lifestyle Correlates of Obesity, Technical Report on the Secondary Analyses Using the 2000-2001, Canadian Community Health Survey*. Accessed Sept. 29, 2008 from: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_450_E&cw_topic=450&cw_rel=AR_1265_E

Carter, T., Polevychok, C. (Dec 2004). *Housing Is Good Social Policy* (Document number: 33525), Canadian Policy Research Networks. Accessed Sept. 29, 2008 from: http://www.cprn.org/doc.cfm?doc=1131&l=en

Centers for Disease Control and Prevention. (2002). Community interventions to promote healthy social environments: early childhood development and family housing. *Morbidity and Mortality Weekly Report* (No. RR- 1), 51. Accessed Sept. 7 2008 from: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5101a1.htm

Clark, M., Riben, P., and Nowgesic, E., (2002). The Association of Housing Density, Isolation and Tuberculosis in Canadian First Nations Communities. *International Journal of Epidemiology,* 31(5):940-945.

Cooper, M., (Jan 2001). *Housing Affordability: A Children's Issue* (CPRN Discussion Paper No. F|11). Accessed Sept. 29, 2008 from: http://www.ginsler.com/documents/housing_a_childrens_issue.pdf

Cloutier, E., Costa, R., Germain, M., Janz, T., Levett, A., Loder, R., et al., (Jan 15, 2008). *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census* (Catalogue 97-558-XWE2006001). Statistics Canada. Accessed May 22, 2009 from: www.statcan.gc.ca/bsolc/english/bsolc?catno=97-558-XIE2006001

D'Angiulli, A., Siegel, L. S., & Hertzman, C. (2004). Schooling, Socioeconomic Context and Literacy Development. *Educational Psychology,* 24(6): 867-83.

Dales, R., Ling, L., Wheeler, A.J., & Gilbert, N. L. (July 15, 2005). Quality of indoor residential air and health. *CMAJ*, 179 (2).

Dedman, D. J., Gunnell, D., Davey S. G., & Frankel, S. (2001), Childhood Housing Conditions and Later Mortality in the Boyd Orr Cohort. *Journal of Epidemiology and Community Health,* 55(1):10-15

Dong, G., Ma, Y., Ding, H., Jin, J., Cao, Y., Zhao, Y., et al. (2008). Housing characteristics, home environmental factors and respiratory health in 3945 pre-school children in China. *International Journal of Environmental Health Research,* 18(4):267 – 282. Accessed Sept. 27, 2008 from: http://dx.doi.org/10.1080/09603120701842864

Dunn, J.,R., (2002). Housing and Inequalities in Health: A Study of Socioeconomic Dimensions of Housing and Self Reported Health From a Survey of Vancouver Residents. *Journal of Epidemiology and Community Health,* 56: 671-681.

Dunn, J.A. (2004). Housing and Population Health - Research Framework (Socio-economic Series 04-016). Accessed Sept. 29, 2008 https://www03.cmhc-schl.gc.ca/b2c/b2c/init.do?language=en&shop=Z01EN&areaID=0000000043&productID=00000000430000000025

Evans, G. W., Lepore, S. J., Shejwal, B.R. & Palsane, M.N. (1998). Chronic residential crowding and children's well-being: An ecological perspective. *Child Development,* 69(6): 1514-1523.

Evans, G. W., Lepore, S. J., & Allen, K. M. (Aug 2000). Cross-cultural differences in tolerance for crowding: Fact or fiction?. *Journal of Personality and Social Psychology*, 79(2):204-210.

Evans, G. W., Saltzman, H., & Cooperman, J.L. (2001). Housing quality and children's socio-emotional health. *Environment and Behavior,* 33(3):389-399.

Evans, G. W., Wells, N. M. & Moch, A. (2003). Housing and mental health: A review of the evidence and a methodological and conceptual critique. *Journal of Social Issues,* 59(3):475-500.

Fauth, R. C., Leventhal, T., & Brooks-Gunn, J. (June 2008). Seven years later: effects of a neighborhood mobility program on poor Black and Latino adults' well-being. *J Health Soc Behav,* 49(2):119-30.

Federal, Provincial and Territorial Advisory Committee on Population Health. (September 1999). *Towards a Healthy Future; Second Report on the Health of Canadians.* Accessed Sept.

29, 2008 from: http://www.phac-aspc.gc.ca/ph-sp/report-rapport/toward/pdf/toward_a_healthy_english.PDF

Fisk, W. J., Lei-Gomez, Q., & Mendell, M. J. (Aug 2007). Meta-analyses of the associations of respiratory health effects with dampness and mould in homes. *Indoor Air*, 17(4):284-96.

Fuller, T. D. , Edwards, J.N., Vorakitphokatorn, S., & Sermsri, S. (1996). Chronic stress and psychological well-being: evidence from Thailand on household crowding. *Soc Sci Med*, 42:265-80.

Hallet, B. (2000). *Aboriginal People in Manitoba*. Accessed Sept. 29, 2008 from: www.gov.mb.ca/ana/apm2000/apm2000.pdf

Hartman, C., & Leff, A. (May/June 2002). High Classroom Turnover: How Children Get Left Behind. *Poverty & Race*. Accessed Sept. 30, 2008 from: http://www.prrac.org/full_text.php?text_id=748&item_id=7789&newsletter_id=62&header=Searchpercent20Results

Hopton, J. L., & Hunt, S. M. (Feb 1996). Housing conditions and mental health in a disadvantaged area in Scotland. *J Epidemiol Community Health*, 50(1): 56–61. Accessed on May 23, 2009 from: http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1060205&blobtype=pdf

Gagné, L. March (2009). *Housing, Neighbourhoods, and Canadian Children's Health Outcomes*. University of Victoria. Accessed May 17, 2009 from: http://www.policyresearch.gc.ca/doclib/PA_pwfcpercent202008_Gagne_eng.pdf

Gifford, R. & Lacombe, C. (2006). Housing quality and children's socioemotional health. *J Housing Built Environ,* 21:177–189.

Health Canada. (1999). *Tuberculosis in First Nations Communities* (Cat. H35-4/7-1999E). Accessed Sept. 29, 2008 from: http://www.hc-sc.gc.ca/fniah-spnia/alt_formats/fnihb-dgspni/pdf/pubs/tuberculos/1999_commun-eng.pdf

Health Canada (2009) A Statistical Profile on the Health of First Nations in Canada: Self-rated Health and Selected Conditions, 2002 to 2005, (Cat.: H34-193/2-2008E-PDF). From: http://www.hc-sc.gc.ca/fniah-spnia/pubs/aborig-autoch/2009-stats-profil-vol3/index-eng.php

Hertzman, C. (2001). Population health and child development: a view from Canada. In Auerbach JA, Krimgold BK (Eds.), *Income, socioeconomic status, and health: exploring the relationships* (pp. 44–55). Washington, DC: National Policy Association.

Hwang, S., Fuller-Thomson, E., Hulchanski, J. D., Bryant, T., Habib, Y., & Regoeczi, W. (1999). *Housing and Population Health: A Review of the Literature.* Accessed Sept. 29,

2008 from: http://www.urbancentre.utoronto.ca/pdfs/researchassociates/1999_Hulchanski-etal_Houspercent202.pdf

Jackson, A. & Roberts, P. (2001). *Physical Housing Conditions and the Well-Being of Children.* Accessed Sept. 7 2008 from: http://www.ccsd.ca/pubs/2001/pcc2001/housing.htm

Kaase, K. (2005). The Impact of Mobility on Academic Achievement: A Review of the Literature. *Research Watch*, Wake County Public School System Evaluation and Research Department. Accessed on Sept. 30, 2008 from http://www.wcpss.net/evaluation-research/reports/2005/0439mobility_review.pdf

Katzmarzyk P.T. (Jan 2008). Obesity and physical activity among Aboriginal Canadians. *Obesity*, 6(1):184-90. Accessed from www.obesityjournal.org

Kohen, D., Hertzman, C & Brooks-Gunn, J. (1998). *Neighbourhood Influences on Children's School Readiness*. Accessed Sept. 29, 2008 from: http://www.hrsdc.gc.ca/en/cs/sp/sdc/pkrf/publications/research/1998-000171/sp-361-02-01e.pdf

Kovesi, T., Creery, D., Gilbert, N.L., Dales, R., Fugler, D., Thompson, B., Randhawa, N. & Miller, J. D. (2006). Indoor air quality risk factors for severe lower respiratory tract infections in Inuit infants in Baffin Region, Nunavut: a pilot study. *Indoor Air,* 16: 266–275.

Kovesi, T., Gilbert, N. L., Stocco, C., Fugler, D., Dales, R. E., Guay, M., et al. (2007). Indoor air quality and the risk of lower respiratory tract infections in young Canadian Inuit children. *CMAJ,* 177(2):155-60

Kuh D, Hardy, R., Langenberg, C., Richards, M., & Wadsworth, M. E. (Nov 2002). Mortality in adults aged 26-54 years related to socioeconomic conditions in childhood and adulthood: Post war birth cohort study. *BMJ,* 325(7372):1076-80.

James, B. (June 2007). *Children's and Young People's Housing Experiences: Issues and Scoping Paper*. Aotearoa, New Zealand: Centre for Housing Research. Accessed Sept. 29, 2008 from: http://www.chranz.co.nz/pdfs/childrens-young-peoples-housing-experiences.pdf

Leventhal T., & Brooks-Gunn, J. (Sept 2003). Moving to opportunity: an experimental study of neighborhood effects on mental health. *Am J Public Health,* 93(9):1576-82.

London School of Economics and Political Science. (Dec 2005). *Health Status and Living Conditions in an Enlarged Europe*. Accessed Sept. 29, 2008 from: http://ec.europa.eu/health/ph_determinants/socio_economics/documents/europe_rd01_en.pdf

Lowry, P. (1993). Privacy in the Preschool Environment: Gender Differences in Reaction to Crowding. *Children's Environments,* 10(2): 46-61. Accessed Sept. 30, 2008 from http://www.colorado.edu/journals/cye/.

Lubell, J., Crain, R & Cohen, R. (2007). *The Positive Impacts of Affordable Housing on Health*. Washington, D.C.: Center for Housing Policy and Enterprise Community Partners. Accessed Oct 1, 2008 from: www.nhc.org/housing/intersections or www.enterprise.org

Lubell, J., & Brennan, M. (July 2007). *Framing the Issues – the Positive Impacts of Affordable Housing on Education.* Accessed on Sept. 30, 2008 from: http://www.nhc.org/pdf/chp_int_litrvw_hsgedu0707.pdf

Maxwell, J. *Why housing affordability matters and for whom.* In Why Housing Affordability Matters and For Whom, Presentation to the Board of Directors of Canada Mortgage and Housing Corporation [PowerPoint slides]. Accessed Sept. 29, 2008 from http://www.cprn.org/doc.cfm?doc=1153&l=en

Menke, E. M. & Wagner, J.D. (1997). A Comparative Study of Homeless, Previously Homeless, and Never Homeless School-Aged Children's Health. *Issues in Comprehensive Pediatric Nursing,* 20(3):153-173. Accessed Sept. 29, 2008 from: http://dx.doi.org/10.3109/01460869709028260

Moloughney, B. (2004). *Housing and Population Health: The State of Current Research Knowledge*. Accessed Sept. 29, 2008 from http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_284_E&cw_topic=284&cw_rel=AR_1129_E

Nansel, T. R., Overpeck, M. D., Haynie, D. L., Ruan, W. J., & Scheidt, P. C. (2003). Relationships Between Bullying and Violence Among US Youth. *Arch Pediatr Adolesc Med,* 157:348-353. Accessed May 28, 2009 from: http://archpedi.ama-assn.org/cgi/reprint/157/4/348.pdf

O'Donnell, V. & Tait, H. (Sept 2003). *Well-being of the non-reserve Aboriginal population* (Catalogue no. 89-589-XIE). Accessed Sept. 29, 2008 from http://www.statcan.ca/english/freepub/11-008-XIE/2003004/articles/6805.pdf

Oliver, L. N. *& Hayes, H. V. (Nov-Dec 2005). Neighbourhood socio-economic status and the prevalence of overweight Canadian children and youth.* ***Can J Public Health*, 96(6):415-20.**

Payne-Sturges, D., & Gee, G.C. (Oct 2006). National environmental health measures for minority and low-income populations: tracking social disparities in environmental health. *Environ Res*, 102(2):154-71.

Postl, Brian. (1995). *A Manitoba Health Review*. Winnipeg, Manitoba: Government of Manitoba.

Public Health Agency of Canada. (Oct 2007). Housing conditions that serve as risk factors for tuberculosis infection and disease. *Canada Communicable Disease Report,* 33(9). Accessed on Sept. 30, 2008 from: http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07pdf/acs33-09.pdf

Rigby, K. (Oct 2003). Consequences of bullying in schools. *Can J Psychiatry,*48(9):575. Accessed May 20, 2009 from: http://www.k12.wa.us/SafetyCenter/HarassmentBullying/pubdocs/ConsequencesofBullying.pdf

Rauh, V. A, Landrigan, G. C., & Claudio, L. (2008). Housing and health: intersection of poverty and environmental exposures, *Ann N Y Acad Sci*, 1136:276-88.

Rosenberg, T., Kendall, O., Blanchard, J., Martel, S., Wakelin, C. & Fast, M. (1997). Shigellosis on Indian Reserves in Manitoba, Canada: Its Relationship to Crowded Housing, Lack of Running Water, and Inadequate Sewage Disposal. *American Journal of Public Health,* 87(9):1547-1551.

Rosenberg, M. W. & Wilson, K. (2001). Exploring the links between health and housing: The limitations of population health surveys, *GeoJournal,* 53:109–116

Ross N., Wolfson, M., & Dunn, J. (1 Apr 2000). Relation between income inequality and mortality in Canada and in the United States: cross sectional assessment using the census data and vital statistics. *BMJ,* 320:898-902. Accessed Sept. 30 from: http://www.bmj.com/cgi/content/full/320/7239/898?view=full&pmid=10741994

Sandel, M., & Wright, R. J. (2006). When home is where the stress is: expanding the dimensions of housing that influence asthma morbidity. *Archives of Disease in Childhood,* 91:942-948 Accessed Sept. 30, 2008 from: http://web.ebscohost.com/ehost/pdf?vid=16&hid=14&sid=6612fdd2-0e4f-45dc-9eae-681966d69d8cpercent40sessionmgr7

Select Standing Committee on Health. (**Nov 29, 2006).** *A Strategy for Combating Childhood Obesity and Physical Inactivity in British Columbia Report*. Accessed Sept. 7, 2008, from: **http://142.36.155.4/cmt/38thparl/session-2/health/reports/Rpt-Health-38-2-29Nov2006/index.htm**

Skelton, I. (2002). Residential mobility of aboriginal single mothers in Winnipeg: An exploratory study of chronic moving. *Journal of Housing and the Built Environment,* 17: 127-144

Silver, J., Mallett, K., Greene, J., & Simard, F. (Dec 2002). *Aboriginal Education in Winnipeg Inner City High Schools.* Accessed Sept. 7, 2008 from: http://ius.uwinnipeg.ca/pdf/aboriginal-education.pdf

Sin, D. D., Wells, H., Svenson, L. W. & Man, S. F. (2002). Asthma and COPD among Aboriginals in Alberta, Canada. *Chest,* 1(6):1841–6.

Slaby, R. G., & Roedell, W. C. (1982). Development and regulation of aggression in young children. In J. Worell (Ed.), *Psychological development in the elementary years* (pp. 97-149). New York, NY: Academic Press. Snyder, H. N. (1984).

Statistics Canada. (2003). Aboriginal Peoples of Canada: a Demographic Profile. Accessed Sept. 30, 2008 from: http://www12.statcan.ca/english/census01/Products/Analytic/companion/abor/pdf/96F0030XIE2001007.pdf

Statistics Canada. (Jan 2008). *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census* (Catalogue no. 97-558-XIE). Accessed May 20, 2009 from: http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=97-558-XIE&lang=eng

Sturm, R. (Jan 2005). Childhood obesity — what we can learn from existing data on societal trends, part 1. *Prev Chronic Dis*, Accessed Sept. 30, 2008 from: http://www.cdc.gov/pcd/issues/2005/jan/04_0038.htm.

Tanzola, M., (Dec 2006). Long-term effects of bullying vary by gender. *Pediatric News,* Accessed on May 20, 2009 from**:** http://findarticles.com/p/articles/mi_hb4384/is_12_40/ai_n29314463/

Temple, J. A., & Reynolds, A. J. (1999). School Mobility and Achievement: Longitudinal Findings from an Urban Cohort. *Journal of School Psychology,* 37(4): 355-377.

Thomson, H., Petticrew, M. & Morrison, D. (2001). Health Effects of Housing Improvement: Systematic Review of Intervention Studies, *British Medical Journal,* 323(7306):187-190.

Thomson, H., & Petticrew, M. (2005). *Is housing improvement a potential health improvement strategy?* Copenhagen, Denmark: WHO Regional Office for Europe. Accessed on May 23, 2009 from: http://www.euro.who.int/Document/E85725.pdf

Trumper, R. (2004). *Health Status and Health Needs of Aboriginal Children and Youth Literature Review*. Southern Alberta Child & Youth Health Network and the Calgary Health Region Aboriginal Health Program. Accessed Sept. 7, 2008 from: http://www.sacyhn.ca/media/pdf/Aboriginalpercent20Literaturepercent20Reviewpercent20Septemberpercent202004.pdf

Valle, V., Gosney, H., & Sinclair, J., *(23 Oct 2008).* **Child: Care, Health and Development.** ***Child Care Health Dev, 34(6): 721-731.***

World Health Organization. (Nov 1986). *Ottawa Charter for Health Promotion*. Accessed Sept. 7, 2008 from: http://www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf

Wilkinson, D. (1999). *Poor Housing and Ill Health: A Summary of Research Evidence.* Accessed Sept. 7, 2008 from: http://www.scotland.gov.uk/Resource/Doc/156479/0042008.pdf

Wilson, K, and Young, T.K., An Overview of Aboriginal Health Research in the Social Sciences: Current Trends and Future Directions" *International Journal of Circumpolar Health.2008 (2-3)* 67:179-189.

Weinreb, L., Goldberg, R., Bassuk, E., & Perloff, J. (Sept 1998). Determinants of health and service use patterns in homeless and low-income housed children. *Pediatrics,* 102(3 Pt 1):554-62.

Wolfson, M., Kaplan, G., **Lynch,** J., **Ross**, N., & **Backlund, E.** (9 October 1999). **Rel**ation between income inequality and mortality: empirical demonstration, *BMJ*, 319:953-957. Accessed on Sept. 30, 2008 from: http://www.bmj.com/cgi/reprint/319/7215/953

Wood, D., Halfon, N., Scarlata, D., Newacheck, P., & Nessim, S. (1993). Impact of Family Relocation on Children's Growth, Development, School Function, and Behavior. *Journal of the American Medical Association,* 270: 1334-1338.

Wright, J. & Muhajarine, N. (2008). Respiratory illness in Saskatoon infants: The impact of housing and neighbourhood characteristics. *Soc Indic Res,* 85:81–95.

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