

# Attitudes and Beliefs Towards HIV and AIDS Among Aboriginal Peoples Living in British Columbia

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## Abstract:

Healing Our Spirit, BC First Nations AIDS Society (HOS) provides outreach and education services for First Nations and Aboriginal people living with HIV/AIDS (APHA). These services, including educational workshops, are provided to diverse clients and communities throughout British Columbia (BC), including remote villages and reserves. Over the past three years, workshop participants have completed questionnaires. Using this collected data multivariate logistic regression is used to examine attitudes and beliefs about those who are living with HIV. This analysis shows that men ( $p < 0.001$ ), persons living in rural ( $p = 0.022$ ) and remote ( $p = 0.017$ ) communities and persons between the ages of 10 and 15 ( $p < 0.001$ ) are less likely to score positive attitudes towards people living with HIV/AIDS. This result suggests a need for more educational programs in rural communities, and in particular, programs which focus on men and adolescents.

## Introduction:

Healing Our Spirit, BC First Nations AIDS Society (HOS) provides outreach and education services for First Nations and Aboriginal people living with HIV/AIDS (APHA). Specific HIV/AIDS educational workshops are designed for three primary audiences: youth, health care workers and Aboriginal community members. With limited resources to support education programs, HOS wants to invest in areas with the highest return, the return being better care for those living with HIV and fewer new HIV infections. If a major objective of education is to develop awareness and positive attitudes towards HIV and AIDS, we must target and design education programs for those with poor attitudes and beliefs. Thus, we want to learn more about where attitudes and beliefs about HIV and AIDS may vary.

It is with this goal in mind that we asked the following question: *Is it possible to identify differences in attitudes and/or beliefs towards HIV*

*and AIDS among Aboriginal peoples?* If we could identify differences, this information would help HOS better develop and target future education programs. The primary data collection tool for this following paper is generated from questionnaires, which have been completed at a number of HOS educational workshops throughout BC.

At the beginning of these HOS workshops, participants were asked to complete a questionnaire, which assessed participant knowledge and attitudes. Data was collected for several years but never analyzed due to a lack of funds for database design, data entry and analysis. Recently, HOS received funding from HIV/AIDS Prevention and Community Action Programs, Health Canada (PCAP) to develop research capacity. An initial project was to evaluate the workshop questionnaires. An Aboriginal researcher was hired by HOS, and consultants helped provide training for database development and basic data analysis. To do this project, an initial research question addressed differences in attitudes towards HIV and AIDS within Aboriginal populations. The data used in the following analysis comes from 1304 workshop questionnaires.

### **Objectives:**

In this analysis, we look at characteristics associated with positive or negative attitudes and/or beliefs towards HIV/AIDS for Aboriginal persons living in British Columbia. In particular, we examine attitudes and beliefs about accepting or isolating people who are HIV positive or have AIDS. Our intent is to investigate whether systematic differences in attitudes of people exist based on categories such as age, gender, and location of community, be they urban, rural or remote.

This type of information is important for education planning and priority setting at HOS. The outcomes of this research also help us better design requests for funding from public and/or private granting agencies.

### **Background:**

For individuals and communities, HIV/AIDS affects all four health components of the medicine wheel: emotional, physical, mental and spiritual. Exactly how the disease exists within a community will define the community's response to the disease. In some Aboriginal communities it is possible to live with the full support of friends and family. In other Aboriginal communities, this environment is not possible because fear, lack of information and misinformation about the disease persist (Lambert, 1993; Red Road, 1999). Importantly, this collection of attitudes and beliefs determines how people protect themselves from contracting the virus and how they treat those who have become infected.

The small amount of research which does exist, both qualitative and quantitative, points to the need for a better understanding of how HIV/AIDS exists within Aboriginal communities. This need is especially true for rural and remote communities (Northern Health Research Unit, 1998). One study, The Ontario First Nations AIDS and Healthy Lifestyle Survey (Myers et al., 1993), has looked at attitudes and beliefs about HIV/AIDS. This study examines beliefs and attitudes within several First Nations communities in Ontario. In this study, questions about beliefs and attitudes were grouped into six categories: AIDS anxiety; isolation of people living with AIDS; communication with sexual partners; traditional values & AIDS education; embarrassment obtaining condoms; and other. The questions used to measure attitudes towards isolation of people living with HIV in Myers et al. are similar to the questions used in our study presented below. Their analysis consists of bivariate comparisons using categories of gender, age and location. Myers et al. found that 57% of respondents scored the highest possible score for the set of questions examining the isolation of people living with HIV. Hence, the majority of respondents felt that HIV positive community members should be supported. There was no significant difference in isolationist attitudes between women and men. The mean response for older (40 years and older) respondents was lower (less inclusive) than for the younger age categories. Differences between regions were not reported for responses to the isolation questions.

In contrast, 32.3% felt that their community would ignore APHA, and 12.7% felt APHA would be told to leave the community. Also, 80% of respondents felt that homosexuality and men having sex with men was wrong.

Other studies have shown that negative attitudes exist. The reasons for this are complex but include issues around homophobia and a seeming conviction that HIV/AIDS affects only gay white men (Report of The Royal Commission on Aboriginal Peoples, 1996). Also, HIV/AIDS is associated with injection drug use, another reality that holds negative connotations within many Aboriginal and non-Aboriginal communities.

We believe that an important first step in HIV/AIDS education is to dispel fear of the disease by building knowledge through culturally appropriate teaching. For HIV/AIDS, this teaching includes addressing issues around homophobia and addictions. In the following study, we use a multivariate logistic analysis to identify differences in attitudes and beliefs towards HIV/AIDS.

### **Data and Methods:**

Healing Our Spirit developed a short, two-page, questionnaire, which examines knowledge, attitudes and beliefs about HIV/AIDS. The questionnaire is used throughout BC in community HIV/AIDS educational workshops hosted by HOS. Workshop participants complete the questionnaire at the beginning of each workshop. In most cases, a workshop facilitator reads out the questions and possible responses while the questionnaire is being completed. This reading is done to accommodate differing levels of literacy. The facilitator gives personal attention to a workshop participant (hence compromising confidentiality of responses) only if the individual participant requests assistance. This assistance is an uncommon occurrence, and for the vast majority of completed questionnaires, the responses can be considered self-administered and confidential. In total, the questionnaire contained 27 questions and took approximately 10 minutes to complete. Data for the analysis presented here comes from 1304 questionnaires completed over a 3-year period spanning 1996 to 1998.

In order to examine attitudes and/or beliefs towards HIV and AIDS, responses to four specific statements were aggregated to construct a new variable. The specific statements used are:

- People with AIDS should be allowed to attend pow-wows and other social gatherings?
- People who get AIDS through sex or drug use deserve the disease?
- People with AIDS should be allowed to work with food in restaurants?
- People with AIDS should be allowed to go to public school?

In response to each statement the participant is given a choice of five responses on a Likert scale. The continuum of response range from strongly agrees to strongly disagree. For questions 1, 3 and 4, a response of strongly agree is considered to be the most positive and strongly disagree is the most negative with respect to attitudes and/or beliefs towards HIV/AIDS. For question 2, strongly disagree is considered to be the most positive and strongly agree the most negative. For analysis, a new variable is created using an aggregation of the four responses.

Each of the five possible responses to each of the four statements above are coded from 1 (most positive response) to 5 (most negative response) and added to give an aggregate score domain of 4 to 20. A score of 4 is considered the most positive and a score of 20 the most negative.

This new variable is labeled BELIEVE. We elected to choose the mean domain score of 12 (i.e. half way between 4 & 20) for BELIEVE to divide the responses into a binary category of either positive or negative attitudes and/or beliefs towards HIV/AIDS. A score of 12 or more is deemed to represent negative attitudes towards HIV/AIDS, and a score of less than 12 is deemed to represent positive attitudes.

The new binary dependant variable was then used in a logistic regression analysis using STATA software (Stata Corporation, 1999)

The independent variables used included dummy variables for age categories, gender, and location of the workshop be it urban, rural or remote. For the later categories, the definition of location was decided using a Delphi panel, which included education and outreach workers from several Aboriginal HIV/AIDS organizations. Each workshop location was unanimously placed in one of the three categories. In general, Urban included major urban centres including but not limited to Kamloops, Kelowna, Nanaimo, Prince George, Vancouver and Victoria. Remote regions were areas that were at least two hours traveling time by vehicle or boat from an urban centre and away from any major highways. Rural communities were considered to be those within two hours ground or water transportation travelling time of an urban centre or slightly longer travelling time but with easy access to a good highway kept open throughout the year. A quick consensus was reached in categorizing each location. Age categories used were 10-15, 16-25, 26-35, 36-45, 46-55 and 56 and older. Dummy variables omitted from the model are those aged 26-35, women and those living in urban areas.

Missing data for some questions reduced the total sample number for the logistic model to 764. There is no significant difference between those in the sample who coded missing for BELIEVE and corresponding age categories (Pearson chi-square=0.431) and location categories (Pearson chi-square=0.388). There is a significant difference between those who coded missing for BELIEVE and gender where men were more likely to code missing (Pearson chi-square=0.002).

## **Results:**

27.3% (n=209) respondents live in remote areas, 26.6% (n=203) live in rural areas and 46.1% (n=352) live in urban areas. 62.6% (n=478) of participants are women and 37.4% (n=286) are men. The mean value for BELIEVE is 8.41 (s.d. 3.19). The distribution of ages is shown in Chart 1. Most workshop participants (594/764) are between 10 and 35 years of age. The multivariate logistic estimate shows that respondents living in rural to remote regions are less likely to score positive attitudes ( $p=0.017$  for remote &  $p=0.022$  for rural). Men are less likely to score positive attitudes

( $p < 0.001$ ), and those in the 10-15 age category also are less likely to score positive attitudes ( $p < 0.001$ ). The full results of the Logistic regression are shown in Table 1.

Using the Odds Ratio for interpretation, men are a little less than half as likely (odds ratio = 0.4660) to score positive attitudes/beliefs. Those in rural and remote communities are a little more than half as likely (odds ratios = 0.5635 & 0.5527 respectively) to score positive attitudes/beliefs. Finally, those in the 10-15 age category were about one quarter as likely (odds ratio = 0.2579) to display positive attitudes/beliefs. No other age categories had an odds ratio significantly different than one; hence, significant differences in attitudes/beliefs among these other age groups are rejected.

### **Limitations:**

The sample used for this study represents people who have chosen to go to HIV/AIDS workshops conducted by Healing Our Spirit. The sample is by no means stratified or random. The stigma, which surrounds HIV/AIDS and the voluntary nature of workshop attendance, makes it reasonable to assume the sample population does not necessarily represent the general population. Further, it is reasonable to assume that a self-selection bias exists in this sample population where attitudes and beliefs, a priori, are more knowledgeable and accepting of HIV/AIDS. Hence, attitudes and beliefs of sample respondents towards HIV/AIDS should be more positive than attitudes and beliefs of the more general Aboriginal population.

In this study, the average values of the variable BELIEVE is 8.41. This falls in the range categorized as positive attitudes towards HIV and AIDS (4 to 11 equals positive attitudes and 12 to 20 represents negative attitudes). Given the above discussion of sample bias, we argue one should be careful not to generalize the 8.41 figure to the broader Aboriginal population. If anything, this value represents a lower bound on the general rate of positive attitudes (remember, the lower this figure, the better the average attitudes and beliefs).

This bias does not alter the conclusions drawn in this paper. The primary finding is that significant differences in attitudes exist among different demographic and regional groups. Even with the sample bias previously discussed, significant differences in attitudes and beliefs have been identified. If the workshops attract those who tend to have better attitudes and beliefs towards HIV/AIDS, it is reasonable to assume that differences identified in this study would be equivalent or greater in the general Aboriginal population.

The sample here represents Aboriginal peoples living in various regions of BC. The results here may not be generalized to other parts of the country.

The non-response bias of men for the variable BELIEVE should not affect the conclusions if the men who are not responding have attitudes equal to or worse, on average, than men who do respond.

### **Discussion:**

This analysis shows that men, persons living in rural and remote communities and persons between the ages of 10 and 15 are less likely to score positive attitudes towards HIV/AIDS. This result suggests a need for more educational programs in rural communities, and in particular programs that focus on men and adolescents.

A major difference between the results of our study and Myers et al. (1993) is that the average responses to the attitude questions were higher (more positive) than what we found. Because the instruments are different, these values are not directly comparable. Still, both methods involve creating a summary statistic from four similar questions. Given the methods used in this analysis, we would be hesitant to conclude that attitudes towards APHA in Ontario are better or worse than attitudes in BC. There is also the consideration of time. We do not know if change of attitudes within a community is linear with time. As a community comes to terms with HIV/AIDS from a point of initially hearing about the disease, it is possible attitudes worsen before they get better. This phenomenon may be especially true if a period of poor or mis-information exists prior to receiving better information through various educational sources. To our knowledge there are no longitudinal studies, which address these issues among Aboriginal communities.

Another difference is that we find that the attitudes of women are better, on average, than men. We also find no difference between any of the age categories above 16 years of age. An interesting point is that before multivariate analysis, those above the age of 66 had significantly worse attitudes than younger groups; however, after controlling for gender, this relationship fell away. The poor attitudes of older men were creating an apparent age effect when there was only a gender effect. Other than a significant difference in attitudes by gender, the results of this study are not inconsistent with the related findings in Myers et al. (1993).

HIV/AIDS education programs in Aboriginal communities are important both for prevention and for care, treatment and support. If fear, misinformation and stigma shroud HIV and AIDS within the community, it prevents the community from dealing effectively and openly with the disease. As a consequence, the virus has a better chance to spread.

Individuals may be less likely to test for HIV, and those living with HIV may be less comfortable disclosing their status to others. Basic information which helps protect those at risk from infection, for instance using barriers during sex, using new needles or learning how to safely clean needles etc., may not be discussed or supported within the community. As a result, little good information and/or a lot of misinformation about HIV/AIDS can persist within the community. A lack of such information can also help harbor fear and misunderstanding about the disease.

Further, if stigmas or fears of violence toward those who are HIV positive are especially strong, the short-term personal consequences of revealing one's HIV status might outweigh the risk of potentially putting others at risk. Hence, people living with HIV might engage in risk activities and feel prevented from letting others know they are HIV positive. If HIV can be openly discussed in the community without repercussion, this scenario is largely mitigated.

Education has a tremendous impact on the quality of life for those who are living with HIV/AIDS. For those people familiar with HIV/AIDS, knowing you cannot get HIV through the air or water may not be news. Still, information at this basic level is not commonly known in some communities (Red Road, 1999). Simple things such as letting people know it is okay to hug or kiss people who have HIV or AIDS can make an important improvement in the lives of both the person who has HIV or AIDS and their friends, family and neighbours. Other issues, such as discrimination towards Two-spirit Aboriginals, are also important components of HIV/AIDS related education. A safe and well-informed environment is a crucial foundation necessary for those living with HIV to receive quality care, treatment and support.

Many Aboriginal people still feel that they could never return to their home community because of the stigma that HIV/AIDS continues to hold. Often, APHA want to return home but feel they cannot because of the shame they would bring to themselves and their families and/or because they feel they will not be accepted by the community. As a consequence, they spend their last living days far from the place they really want to be, their home community. This situation is part of the current tragedy of HIV and AIDS among Aboriginal peoples (Report of the Royal Commission on Aboriginal Peoples, 1996; Red Road, 1999).

Taken together, we see that the ability of a community to respond to HIV and AIDS in an informed, caring and compassionate way will help prevent new infections and allow for the provision of better care, treatment and support for those who are living with the disease. Increased, and appropriately targeted, education programs will help build capacity within Aboriginal communities so that they can better respond to the many challenges of HIV and AIDS. This study provides HOS with more



information to better wage the battle against HIV and AIDS. From this research, HOS will be better able to target its current educational programs and to develop new programs. HOS can also approach potential funders with sound research which supports ongoing and increased funding for education targeted at men, the young and those living in rural and remote regions of BC.

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**Appendix A: Table 1 & Chart 1****Table 1: Results of Logistic Regression**

<b>Independent Vars</b>	<b>Odds Ratio</b>	<b>P&gt; z </b>	<b>[95% Conf. Interval]</b>	
<b>gender</b>	0.4660	0.0000	0.3112	0.6976
<b>remote</b>	0.5527	0.0170	0.3393	0.9004
<b>rural</b>	0.5635	0.0220	0.3445	0.9216
<b>age 10-15</b>	0.2579	0.0000	0.1406	0.4732
<b>age 16-25</b>	0.6162	0.1110	0.3395	1.1181
<b>age 36-45</b>	0.9681	0.9370	0.4353	2.1533
<b>age 46-55</b>	0.8257	0.7050	0.3061	2.2274
<b>age 56+</b>	0.4807	0.2980	0.1211	1.9089

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