

**KNOWLEDGE, ATTITUDES AND BEHAVIOR OF  
CREE SECONDARY SCHOOL STUDENTS  
IN RELATION TO AIDS**

by  
**Sylvie Corbeil**

Department of Administration and Policy Studies in Education  
McGill University, Montreal  
MARCH, 1993

A Thesis submitted to the Faculty of Graduate Studies and Research in  
partial fulfillment of the requirements for the degree of  
Master of Arts (M A ) in Comparative Education

© Sylvie Corbeil, 1993

## **Abstract**

The high rate of sexually transmitted diseases and teen pregnancies among the Cree adolescents indicate that this population frequently engages in unprotected sexual activities. AIDS is a critical health problem worldwide and AIDS contamination within a Cree community could be a threat to its survival.

A questionnaire was developed to survey attitudes, knowledge and behavior of Cree students in relation to AIDS. Further analysis included finding relationships between knowledge level, attitudes and behavior in order to guide future educational interventions.

A satisfactory level of knowledge about AIDS can be credited to the interventions of the clinic, the school, and the television. The level of knowledge is positively correlated with the level of tolerance of Cree students towards people infected by the HIV virus and of their perception of the danger of AIDS for the Cree population. While knowledge level and attitudes cannot be used to predict safer sexual behavior, alcohol consumption is highly related to risky sexual practices.

## Résumé

L'incidence élevée de maladies transmises sexuellement et de grossesses adolescentes chez les jeunes Cris indiquent que cette population pratique fréquemment des activités sexuelles à risques. Le SIDA est un problème mondial et la contamination de certains membres d'une communauté Crie pourrait mettre la survie de la communauté en danger.

Un questionnaire fut développé dans le but de sonder les attitudes, les connaissances et les comportements des étudiants Cris par rapport au SIDA. Par la suite, les relations entre le niveau de connaissance, les attitudes et les comportements furent analysés afin de servir de guide pour les interventions éducatives futures.

Les interventions de la clinique, de l'école, et des médias ont contribué à l'acquisition d'un niveau satisfaisant de connaissance du SIDA chez les jeunes Cris. L'augmentation du niveau de connaissance a eu pour effet une tolérance accrue envers les personnes atteintes par le virus VIH et une perception plus claire de la menace du SIDA pour la population Crie. Bien que le niveau de connaissance et les attitudes ne démontrent pas d'effets sur le comportement sexuel, la consommation d'alcool est fortement associée aux comportements sexuels à risque.

## Acknowledgments

I would like to express my gratitude and appreciation to my advisor Dr Ratna Ghosh for her encouragement and guidance throughout this work and to Dr Geoffrey Isherwood for his practical advice in statistical analysis of my data. I must also thank Mrs Mary-Lynne Keenan for her assistance in solving administrative problems.

I am grateful to Dr Joyce Pickering for her guidance in the early stages of my research and to the Social Program Evaluation Group of Queen's University which kindly provided me with up to date documents upon request. Special appreciation is extended to Mr Ross Coffin principal of Maquatua Eeyou School who with the support of the school committee and the help of his teachers conducted the survey for this study.

I would also like to take this opportunity to thank Brad Spence, Denise Georgekish and Margie Duthie for proofreading my text as well as H el ene Lalime for her help with the computerized library search. Finally, my thanks go to my husband, Joseph Vettickal for his understanding, my friends and family Joan-Pierre, Th er ese, Jos ee, Louise, Xiaomin and all those who gave their time, love and energy to assist me with the care of my daughter Andr ea while I was working on this thesis.

## Table of Contents

Abstract . . . . .	I
Résumé . . . . .	II
Acknowledgments . . . . .	III
Table of contents . . . . .	IV
List of tables . . . . .	VII
List of abbreviations . . . . .	VIII
<b>CHAPTER I - INTRODUCTION</b>	
1 1 Problem statement . . . . .	1
1 2 Objectives . . . . .	2
1 3 Research Questions . . . . .	3
1 4 Significance . . . . .	4
1 5 Study design . . . . .	4
1 6 Limitations . . . . .	5
<b>CHAPTER II - REVIEW OF LITERATURE</b>	
2 1 INTRODUCTION . . . . .	6
2 2 CHARACTERISTICS OF ADOLESCENT SEXUALITY . . . . .	7
2 3 THE CREE OF JAMES BAY . . . . .	9
2 3 1 The Cree adolescent . . . . .	11
2 4 SEX EDUCATION IN THE SCHOOLS . . . . .	12
2 5 KNOWLEDGE OF AIDS . . . . .	13
2 6 SOURCES OF INFORMATION . . . . .	14
2 7 ATTITUDES . . . . .	17

2 8 AT-RISK SEXUAL BEHAVIOR . . . . .	18
2 9 CONSUMPTION OF DRUGS AND ALCOHOL . . . . .	20
2 10 SUMMARY OF THE LITERATUREREVIEW. . . . .	20
2 11 THEORITICAL FRAMEWORK . . . . .	21
2 11 1 The Health Belief Model . . . . .	22
2 11 2 The Aids Risk Reduction Model . . . . .	23

**CHAPTER III- METHODOLOGY**

3 1 Introduction . . . . .	25
3 2 Sample . . . . .	26
3 3 Instrument . . . . .	27
3 4 Procedures . . . . .	28
3 5 Analysis of the data . . . . .	28

**CHAPTERIV - PRESENTATION OF THE DATA**

4 1 CHARACTERISTICS OF THE SAMPLE . . . . .	29
4 2 KNOWLEDGE OF AIDS . . . . .	30
4 3 SOURCE OF INFORMATION ABOUT SEXUALITY AND AIDS	33
4 3 1 Main sources . . . . .	34
4 3 2 Preferred sources . . . . .	36
4 4 ATTITUDES . . . . .	38
4 4 1 Attitude towards people with AIDS . . . . .	39
4 4 2 Myths and stereotypical thinking . . . . .	41
4 4 3 Fear of AIDS and perceived vulnerability . . . . .	43
4 4 4 Influence of peers . . . . .	45
4 4 5 Attitudes toward condom use . . . . .	45
4 4 6 Other barriers to sexual behavior change . . . . .	47

<b>4.5 PATTERNS OF RISK TAKING BEHAVIOR</b> .....	<b>49</b>
4.5.1 Sexual activity .....	50
4.5.2 High risk sexual practices .....	50
4.5.3 Condom use .....	51
4.5.4 Substance use .....	52
<b>4.6 RELATION BETWEEN KNOWLEDGE, ATTITUDES AND BEHAVIOR</b>	
4.6.1 Knowledge, attitudes and behavior .....	55
4.6.2 Instruction, attitudes and behavior .....	57
4.6.3 Preventive behavior .....	58
4.6.4 Substance abuse and at-risk sexual behavior .....	59

**CHAPTER V**

<b>5.0 CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>60</b>
5.1 Summary of findings .....	60
5.2 Discussion .....	63
5.3 Recommendations for educational interventions.....	67
5.4 Suggestions for further research. ....	71
5.5 Concluding remarks .....	71

<b>REFERENCES</b> .....	<b>72</b>
-------------------------	-----------

**APPENDICE**

<b>I. Cree Youth and AIDS Survey</b> .....	<b>77</b>
--	-----------

## LIST OF TABLES

Table 4 1	Knowledge of AIDS (% correct)	31
Table 4 2	Number of classes attended on sexuality and AIDS (%)	33
Table 4 3	Main sources of information about sexuality by gender and age group (% and rank)	35
Table 4 4	Main sources of information about AIDS by gender and age group (% and rank)	36
Table 4 5	Preferred sources of information about sexuality by gender and age group (% and rank)	37
Table 4 6	Preferred sources of information about AIDS by gender and age group (% and rank)	38
Table 4 7	Attitudes towards people with AIDS, by gender, age group and sexual activity (%)	40
Table 4 8	Myths and stereotypical thinking, by gender, age group and sexual activity (%)	42
Table 4 9	Fear of AIDS and perceived vulnerability, by gender, age group and sexual activity (%)	44
Table 4 10	Influence of peers, by gender, age group and sexual activity(%)	46
Table 4 11	Attitudes towards condoms, by gender and age group (%)	47
Table 4 12	Other barriers to sexual behavior change, by gender, age group and sexual activity (%)	48
Table 4 13	Sexual activity by gender and age group (%)	50
Table 4 14	Frequency of condom use and condom carrying among sexually active adolescents (%)	52
Table 4 15	Frequency of alcohol use, by gender, age group and sexual activity (%)	53
Table 4 16	Frequency of drug use, by gender, age group and sexual activity (%)	54
Table 4 17	Interrelationship, correlation coefficients and significance level	56



## Abbreviations

AIDS	·	Acquired Immune Deficiency Syndrome
ARRM	:	AIDS Risk Reduction Model
CHR	·	Community Health Representative
CSB	·	Cree School Board
HBM		Health Belief Model
HIV	·	Human Immunodeficiency Virus
J B A.	·	James Bay Agreement
KAP	·	Knowledge, Attitudes and Practices
MEQ	·	Ministry of Education of Quebec
PSD		Personal and Social Development
STD	:	Sexually Transmitted Diseases

## **CHAPTER I - INTRODUCTION**

### **1.1 Problem statement**

**AIDS (Acquired Immune Deficiency Syndrome) is everyone's concern. It affects men, women and children around the world. In Canada, it is believed that an undetermined number of teenagers are already carrying the virus without knowing it. Although only 3% of the people having AIDS are adolescents aged 15-19, 20% of all reported cases of AIDS in Canada is found in the population aged 20 to 29 (King et al., 1988). Since the latency period is up to 7 years, it is likely that most of them were infected during adolescence. Since no cure or vaccine has been found yet, many more are likely to become victims of the deadly disease (King et al, 1989).**

**No case of AIDS or HIV seropositivity has yet been identified among the Cree population of Northern Quebec. However, no systematic testing has been conducted. The high incidence of sexually transmitted diseases and pregnancies among the Cree adolescents suggests that many young Cree engage in unprotected sexual practices. It is likely that the HIV virus would be transmitted mainly through heterosexual contacts among the Cree population (Pickering & James, 1991).**

**Information about sexuality and AIDS is disseminated through a number of sources: the family, the media, the schools, and many others. Some of these sources are more reliable and more effective than others. Sex education in the schools is often looked upon as an ideal tool for the prevention of AIDS. Some programs have been used to inform students about the dangers of AIDS. The literature challenges the assumption that increased knowledge alone leads to safer sexual behavior (Frappier, 1988; King et al. 1989) In fact, many teens, both informed and uninformed, continue to engage in risky sexual practices. A number of social and psychological factors influence adolescents to take risks with their health. Lack of judgment resulting from an overconsumption of drugs and alcohol may also be responsible for preventing adolescents from adopting safe sexual behavior.**

The purpose of the present study is to learn more about AIDS knowledge, attitudes and sexual behavior of Cree Secondary School Students in order to identify the main risk factors leading to unsafe sexual practices. The results of the study will guide the educators into more effective educational interventions.

## **1.2 Objectives**

As very little is known about the sexuality of Cree adolescents, the first objective of this study is to measure the level of knowledge, and describe the attitudes and behavior of Cree secondary school students in relation to AIDS. The second objective is to identify factors that are related to risky sexual behavior.

The specific objectives can be divided into three areas of interest: knowledge, attitudes and behavior. An evaluation of knowledge of Cree secondary school students in relation to AIDS is made in order to determine if risky sexual behavior results from lack of information. The relative importance of school and other sources in informing the adolescent about sexuality and AIDS is assessed in this study.

The present research seeks to describe the attitudes of Cree secondary school students towards people affected by the HIV virus. Attempts are made to find out the extent to which students are concerned with the threat of AIDS and to evaluate the importance of social and peer pressure on sexual behavior. Myths and stereotypes, fear of AIDS perceived vulnerability, attitudes towards condoms and other barriers to sexual behavior changes have also been explored.

Finally this study seeks to determine the incidence of risky sexual behavior and the extent of drug and alcohol consumption as a factor leading to at-risk sexual behavior.

### **1.3 Research questions**

To achieve these objectives a survey was conducted among Cree Secondary school students of Maquatua Eeyou School in Wemindji. Written questionnaires were completed anonymously and a quantitative analysis of the data followed. Specific research questions follow from each objective:

#### **Knowledge**

- 1 How much knowledge do Cree students possess about AIDS?

#### **Source of information**

- 2 What are the students' main sources and preferred sources of information about sexuality and AIDS?
- 3 How much instruction relative to sexuality and AIDS is provided to the students? Would the students like more instruction ?

#### **Attitudes**

4. What are the attitudes of secondary school students towards people affected by the AIDS virus?
5. Are students afraid of contracting AIDS? To what degree is the adolescent feeling vulnerable to contracting AIDS?
6. Are myths and stereotypes about AIDS prevalent among the adolescent population?
7. How important is peer pressure in influencing students' behavior?
8. What is the attitude of students towards condoms?
9. What are other barriers to sexual behavior change?

## **Behavior**

10. At what age do Cree students start to be sexually active ?
11. Are they reporting at-risk sexual behaviors (multiple or unknown partners, homosexual relationships, unprotected sex)?
12. What is the impact of drugs and alcohol consumption on sexual behavior?

### **1.4 Significance**

In the Cree communities of Northern Quebec, AIDS could become a serious health problem in the future if nothing is done to avoid it. Young adolescents should be warned about the threat of AIDS before they become sexually active. Since the likelihood of contracting AIDS is great among the adolescent population, schools might be the target place to begin prevention work. However, before teaching AIDS prevention, it is important to determine the real causes of risky sexual behavior. The findings of this research will prove to be useful in identifying these causes. This information will assist in the development, the selection or the adaptation of educational programs for schools that will focus on the real needs of the students.

In addition, the results of this survey could also be useful to health workers concerned with the prevention of AIDS as they will be able to focus their actions to better suit the specific needs of Cree youth. Ultimately this may reduce the risks of AIDS contamination in the community.

### **1.5 Study design**

The present study was conducted in Wemindji, a small Cree reserve on the East Coast of James Bay. All of the students attending the only High School in Wemindji were asked to complete a 12 page written questionnaire on AIDS. The survey was administered by the teachers during class time. The questionnaire was then forwarded to the researcher for analysis.

## **1.6 Limitations**

**One of the greater limitations of this study is the lack of control by the researcher of the conditions under which the questionnaire was administered. It is doubtful that the procedures were standardized in each class. The researcher had to rely on the professionalism of the teachers to administer the questionnaire in a way which encouraged the students to answer seriously.**

**The respondents might have attempted to appear more liberal or conservative than they actually were in order to conform to perceived demand characteristics. Thinking that their answers might be exposed, some students might have bragged in order to impress other students. Because all of the data are self-reported, there is a possibility of some degree of error.**

**All the classes did not receive the questionnaire simultaneously. Some classes were surveyed several weeks later than the others because of the mid-term exams taking place during that time period. This could have permitted discussion among the students and modification of the results.**

**As the questionnaire was in English, the second language situation could have been a barrier to the full understanding of the written questions. Utmost care was taken by the researcher, while designing the instrument, to reduce the impact of this obstacle to a minimum.**

**The study included only the young people attending high school. There are a number of adolescents who have dropped out of school because of pregnancies, or other reasons that were not surveyed. Others are going to school outside the community. These students might have different learning abilities, values, attitudes and behaviors from those attending school. For this reason, the results are not generalizable to the entire adolescent population of Wemindji. Finally, this study is not generalizable to the secondary students of other communities as there are some regional differences between the communities. However, the contribution of this study is that it indicates trends.**

## CHAPTER II - REVIEW OF LITERATURE

### 2.1 INTRODUCTION

Knowledge, attitudes and behaviors of Canadian adolescents in relation to AIDS were extensively studied in the past few years. Two major large scale studies have recently been conducted in Canada and in Quebec respectively: "*Canada Youth and AIDS Survey*" (1988) and "*Enquete Québécoise sur les facteurs de risque associés au SIDA et aux autres MTS: la population des 15-29 ans*" (1991). In spite of this wealth of information, hardly anything is known about the sexuality of native teenagers as they were not studied specifically. The high rate of sexually transmitted diseases and teen pregnancies among the Cree youth suggests that the cultural and social factors specific to the Cree affects the sexual behavior of their youth.

The little research available on the sexuality of the Cree focuses on the population as a whole rather than on the younger segment. Most information about the Cree given in this paper are based on two recent ethnographic studies (Reigneau, 1990; Pickering & James, 1991) in which a limited number of individuals were interviewed about their views of sexuality in a historical and cultural perspective. In addition, it is necessary to include information about knowledge, attitudes and practices (KAP) from research conducted among non-native adolescents inside and outside Canada.

This chapter begins with a review of the characteristics of the general adolescent population with a view to explaining why they are more susceptible to contracting AIDS than other age groups. Then, the specific characteristics of the Cree teenagers are discussed briefly. Since all Canadian adolescents are required by law to attend school up to age 16, it is necessary to review the attempt made by schools in Quebec to provide Sex Education as a means to preventing AIDS and other sex related problems. Less formal sources of sex education such as family, friends, the clinic and the media also contribute to imparting knowledge about sexuality and AIDS to adolescents. The level of knowledge, attitudes and sexual behavior of Canadian youth is described with a view to better understanding the factors leading to risk-taking.

behaviors. The literature on the impact of alcohol and drug consumption on sexual behavior has also been reviewed. Finally, this chapter concludes with a description of the two major theoretical frameworks used as a basis for the present research.

## **2.2 - CHARACTERISTICS OF ADOLESCENT SEXUALITY**

Adolescence is a period of life that stretches from the onset of puberty to young adulthood. It can be divided into two segments, early adolescence (11-15 years) and late adolescence (16-21 years). Early adolescence is a time of great tension in which the young people attempt to establish a greater degree of independence from their family. Friends become more important and have a great influence in the acquisition of new values and beliefs. Late adolescence is a period in which the young person is more autonomous and is concerned with the preparation of adult life. Selection of a mate and a career, clarification of values and beliefs are tasks to be achieved during this period. (Chilman, 1983, Charbonneau et al, 1989)

This transition period between childhood and adulthood is marked by great changes biologically, cognitively, psychologically and socially. All these changes do not necessarily take place simultaneously or at the same pace for each individual. With the onset of puberty, which takes place at an earlier age now than in previous generations, adolescents have to adjust to their transforming bodies and to new sexual feelings. They soon have the physical aspects of young adults and are capable of full sexual expression (Frappier, 1980, Wilkins, 1985, Massé & Duquet, 1988). Massé & Duquet (1988) suggest that physically, young adolescent girls are more prone to venereal infection than adults. This is explained by a lower pH and a biological immaturity of the epitheliums of the vagina. This physical vulnerability of adolescents is critical when the adolescent is exposed to the AIDS virus.

In spite of their desire to become sexually involved and their reproductive capacity, the psychological and cognitive immaturity of young adolescents



does not allow them to fully understand the long term consequences of sexual involvement (Massé & Duquet, 1988) The psychological development of the adolescent is characterized by the development of one's identity and the search for intimacy Identity is defined through one's experience, consequently, sexual experimentation may become part of this developmental process The progressive initiation of sexual activity is also closely linked with the search for intimacy with a significant partner Sexual intercourse, no longer seen predominantly as a function of reproduction, has become a form of intimate communication between two individuals (Frappier, 1980, Wilkins, 1985; Charbonneau et al. 1989).

Adolescents like to take risks and choose to ignore the possible consequences of their actions. Their cognitive development is still in transition between concrete thinking and formal thinking in which the adolescent will acquire the capacity to analyze and synthesize information in order to foresee the effect of their actions in the future In addition, early adolescence is characterized by egocentrism, a sense of personal uniqueness and indestructibility. They have the feeling that nothing can happen to them This explains the high rate of teen pregnancies and sexually transmitted diseases actually prevalent among adolescents in our society (Frappier, 1980, Diver, 1985, Massé & Duquet, 1988 Charbonneau et al 1989).

The social context in which the adolescents evolve also determines the development of their sexuality In the last few decades western societies in general have become more permissive in relation to sexuality Sexual intercourse out of wedlock has become acceptable. Adolescents are exposed to a variety of suggestive and pornographic material on television and in the media (Wilkins, 1985, Charbonneau et al 1989)

The breakdown of family structure, the fast pace of life and the demands of the consumer society are all factors contributing to a reduction of quality time for communication between parents and their adolescents Instead, adolescents spend more time with their teenage friends in groups or individually and it provides more opportunity for initiation of sexuality (Wilkins, 1985)

The economic conditions prevalent today do not encourage adolescent autonomy. With reduced employment opportunities, adolescents are encouraged to pursue longer studies, therefore, they need to remain financially dependent of their parents for a longer period of time. This late access to independence encourages adolescents to search immediate gratification without considering the consequences of their action (Wilkins, 1985).

In spite of these influences, adolescents are more conservative in their sexual expression than might be expected. Adolescent sexuality is characterized by serial monogamy, promiscuity is rather rare<sup>1</sup>. Adolescents engage progressively in sexual activities rather than having sexual intercourse on their first date. At the beginning sexual intercourse is sporadic and unplanned. This explains why unprotected sex is frequently practiced (Wilkins, 1985).

## 2.3 - THE CREE OF JAMES BAY

The Cree population of Quebec includes 9227 people (1990' statistics obtained from the Grand Council of the Cree ) divided in 9 villages, Whapmagoostui (Great Whale River), Chisasibi, Wemindji, Eastmain and Waskaganish along the coast of the Hudson Bay & James Bay; Nemaska, Mistassini, Waswanipi and Ouje-Bougameau are located inside the territory. Another 1000 Cree live outside the reserve

The Cree were originally a nomadic hunting society living in smaller groups called bands. They have lived and traveled in this territory for at least 4000 years. The Cree first encountered European explorers in the 1600'. From 1670 the Cree have been trading furs with the Hudson Bay Company established in their territory. The trading posts attracted the Cree population to the sites which later became permanent settlements (SIGMAI, 1984).

---

<sup>1</sup> **Serial monogamy:** The person have a number of consecutive relationships. While involved in a relationship the partners remain sexually exclusive

**Promiscuity:** The person is involved in sporadic sexual relationships with a number of different partners

The Cree preserved their traditional lifestyle and beliefs until the XXth Century. The arrival of the first missionaries brought the Anglican faith and gave the Cree access to some formal education. From 1948, the federal government became involved in providing education and health services to the Cree of James Bay, formal schooling became compulsory in 1950. Major changes took place however, since the 1970' with the signature of the James Bay Agreement and the development of large hydro-electric projects ( SIGMAI, 1984 ).

The James Bay Agreement (J.B.A.) provided important financial compensations and recognized that the Cree had the right to govern their own territory. Provisions of the J.B.A. also permitted them to administer their health and education system as well as take decisions in regard to their economic development. As a result of this, proper housing was organized and constructed. Health and social services were made available and the Cree School Board (C.S.B.) was founded in 1978. The C.S.B. adopted the programs of the Ministry of Education of Quebec but they also developed their own programs in regard to Cree language and culture.

In spite of exposure to the southern culture, a strong bond with traditional cultural values and lifestyle still exists in the community. Hunting and fishing remain an important part of many people's lives. In May, a "goose break" is scheduled into the school calendar to allow the students to accompany their families on traditional hunting excursions. During that season, many teepees are erected in the villages to allow the population to combine traditional and modern activities. The Cree youth of today are challenged to find their own ways in this context of rapid change where teepees and computers are forced to cohabitate.

### 2.3.1 The Cree adolescent

Traditionally, for the Cree, the notion of adolescence did not exist (Morel, 1989). Adulthood was defined on the basis of achievement. Consequently, a child could be considered as an adult at a very early age. Sex roles were well defined, young girls were prepared early for their future roles as wives and mothers while the boys were expected to become providers (Swampy, 1982). This difference between the sexes is still observed today. Young girls take care of their younger siblings while young boys accompany their fathers in hunting expeditions.

Dating, as we know it in white society, was not common. Pre-arranged marriages of young people were frequently organized by the parents. It was not rare for a 15 or 16 year old girl to be married (Rogers, 1965). Today this practice has been discontinued although high school students frequently have children before they graduate.

In spite of their early sexual activity, it is difficult for Cree teenagers to display any form of sexual attraction in public places. Spatial segregation is commonly practiced in the school and at dances. No kissing, hugging or hand holding is seen on the streets or in the school. Modesty is also reflected in their dress. This apparent modesty is not a sign, however, of the lack of sexual urge or absence of sexual activity. In fact courtship is carried out in the most subtle way. Practices however are changing under the influence of the white society (Reigneau, 1990).

In the last 20 years, the Cree of James Bay have gone through drastic changes in the fields of education, as well as in their lifestyles as a whole. Some communities lack organized activities for the youth. This leaves them more free to engage in sexual activities, often resulting in teen pregnancies. Since abortion is not socially accepted, most adolescents keep their babies and receive full support from their parents and their families. Due to a shortage of housing, young people often live with their parents after having one or two children and even after marriage. Most of the young people acquire financial

independence late due to lack of employment

The media are increasingly present in the lives of young Cree people. Television fills an important portion of their leisure time. Its impact is especially significant in the Cree society where people are not exposed to norms other than what is presented on the screen. The values transmitted through the media as well as the presence of the white population in the village are shaking up the traditional values (Morel, 1989)

## **2.4 SEX EDUCATION IN THE SCHOOLS**

In spite of the taboos traditionally attached to sexuality, most educational systems today provide some sex education. The content however varies from one system to another. In some cases the program is narrowly defined and barely covers the biological-physiological aspects of sexual behavior. In other cases the curriculum covers all aspects of human sexuality: biological, emotional, social, psychological and spiritual (Kluge, 1985).

In Quebec some information on sexuality is integrated within the regular curriculum of Biology, Physical Education, Moral and Religious Education but more specifically as one of the five sections of the compulsory PSD (Personal and Social Development) course offered at all primary and secondary school grade levels. The Sex Education component of the PSD course is comprehensive and aims to assist young people in their self-actualization and growth, by knowing and integrating the different aspects of sexuality. One of the objectives of the secondary PSD curriculum is to encourage the prevention of AIDS and other sexually transmitted diseases but in reality the topic is only covered briefly in Secondary 4 and 5 levels (age 15-17) (M.E.Q. 1989). This could be considered rather late since according to the results of Thornburg's (1981) study the peak time for acquisition of sexual concepts is at the age of 12-13 (Sec. 1 & 2).

The Cree School Board, located in Northern Quebec has been committed to follow the M.E.Q. curriculum but is allowed to adapt the programs to reflect the

**Cree culture** A supplement to the PSD guide was designed by nurses from the Cree Board of Health and Social Services of James Bay (C.B.H.S.S.J.B.) with the objective of lowering the incidence of sexually transmitted diseases and teen pregnancies in the Cree communities. The main purpose of the program is to provide the information necessary for the adoption of attitudes leading to safer sexual behavior (Cornejo, 1990). This program was approved by the school committees and made available in the Cree schools since 1989.

It is beyond the scope of this study to evaluate the quality of these programs. However, the lack of specific training of teachers in sex education, the lack of time and resources assigned for the PSD course, the heavy density of the program forcing a selection of material, the difficulties in discussing sexuality because of taboos and cultural differences between teachers and students are only a few of the difficulties that may impede the implementation of proper sex education programs in the Cree School Board. As a result it is not unlikely that a Cree student goes through a year of secondary schooling without having received any sex education at all.

When offered, sex education classes rarely suffer from lack of attendance. This is attributed to the high level of motivation and interest of the students (Kluge 1985). It does not, however ensure that proper learning takes place as an effective program must go beyond mere communication of facts.

## **2.5 KNOWLEDGE OF AIDS**

Sex Education in the school is often seen as a solution to solve social problems such as teen pregnancies, sexually transmitted diseases and AIDS. It is assumed that by informing the youth about the issue, behavioral change will result. Parents are sometimes afraid that Sex Education will encourage their children to become sexually active. Studies have shown that young people who know more about sexuality do not show more or less promiscuity than the ones who don't (Schofield, 1973). Several researchers recognize today that the acquisition of knowledge is necessary but not sufficient to bring about

change in behavior (Kirby, 1980, Moseley, 1982, Frappier, 1988, King et al., 1989, Massé & Duquet, 1989)

In general, knowledge does increase when a student is exposed to sex education. However, research does not indicate significant change in attitudes as a result of sex education programs except for an increased openness towards sexual behavior of others. No study has been able to prove that sex education has had any effect upon behavior (Moseley, 1982, Frappier, 1988). Moseley (1982) points out that despite this evidence, behavior modification through learning the facts is still the underlying assumption of most sex education programs. It is urgent to identify the factors that will lead to change in attitudes and behaviors.

Most young people in Quebec already have a good knowledge of the means of AIDS transmission. This shows that the efforts made in the last few years to alert the population has had some effect. However, the level of knowledge of adolescents is increasing with age up to age 18. Since the majority of young people become sexually active before that age efforts must be made to reach the younger adolescents (Santé Québec, 1992).

Pickering and James (1991) found that the Cree interviewed in their study possessed some general knowledge of AIDS but were uncertain with respect to certain modes of transmission. Most parents expressed a desire to see their adolescents educated on the questions of AIDS.

## **2.6 SOURCES OF INFORMATION**

Information on sexuality and AIDS does not only come from schools but also through parents, friends, ministers, nurses, doctors, printed material and the media. The importance and reliability of each of these sources vary and what they promote as solutions can contrast drastically i.e. condoms vs. abstinence.

Sexuality has never been a topic easily discussed between Cree parents and

their children (Reigneau, 1990, Pickering & James, 1991). This is also true in many non-native families. Most young people have reservations about asking questions regarding sex to their parents. Some studies show that female students rely more on their mothers for sex information than their male counterparts (Thornburg, 1972, 1981, Goldman & Goldman, 1981). Despite the difficulties in establishing communication, adolescents expressed their desire to receive more information about sexuality from their parents. (King et al., 1988, Frappier, 1988) Some authors suggest that sex education is more effective in changing values and attitudes when parents are the major informers (M E Q, 1985, Fortin et al., 1988, Frappier, 1988) The lack of communication between parents and children is partly the result of the parents' feeling of inadequacy (M E Q, 1989) They feel they have to be more informed if they want to educate their children (King et al, 1985, 1988)

Friends are the major source of information on sexuality for the youth (Schofield, 1973, Thornburg, 1972, 1981, Davis & Harris, 1982; King et al., 1985, 1988) Adolescents feel that the information transmitted by peers is often misleading and unreliable, yet it plays a major role in shaping their behavior (Schofield, 1973, Goldman & Goldman, 1981, Frappier, 1988, King et al, 1988). Some programs, such as "Postponing Sexual Involvement" (P.S.I.), have been successful as they make use of peer leaders to act as role models to bring about attitudes and behavior modification (Howard, 1983).

Cree parents seem to rely on the school to teach their children about AIDS (Pickering & James, 1991) M.E.Q acknowledges that although it is mainly the responsibility of parents to assure sex education, the school has to play a compensatory and complementary role in the sex education of children. Quebec secondary schools provide sex education through the PSD course (M E Q, 1985) Despite these efforts, schools contribute mainly to the acquisition of factual information on sexuality but not in the modification of attitudes and behaviors (Frappier, 1988; Thornburg 1972, 1981) Pickering & James (1991) report that most young Cree people interviewed have named school as a source of information on AIDS even if the amount and quality of instruction seem to vary from school to school



A large percentage of the Cree population listen to local radio. It is operated by Cree and besides broadcasting music, it provides local news and current events in the local Cree dialect. Some information on AIDS has been broadcast in the past (Pickering & James, 1991). The impact of radio is likely to be greater for the Cree than for the Canadian youth in general as radio is the main means of communication in the Cree communities.

Since the Quebec adolescents watch an average of 15 hours of television per week, its impact as a major source of information on sexuality must not be underestimated. Some television programs are of great educational values but, they are usually less popular than "soaps", action series or feature films in which unprotected sexual intercourses are frequently shown as fun, trivial and without consequences. The characters in those programs rarely hesitate before having sex and the use of contraceptives are never shown. The messages on sexuality transmitted through television are contradictory to the ones promoted at home and in the school. Parents usually advise their adolescents to wait before having sex, students are encouraged to use contraceptives to protect them against pregnancies, sexually transmitted diseases and AIDS (Kessler, 1983, Frappier, 1988). Cree parents accuse television and pornographic videos for the early sexual involvement of their children (Pickering and James, 1991).

Magazines, books, pamphlets and fliers are used, especially by older students, in order to gain information on sexuality (Thornburg, 1972, 1981; Schofield, 1973; King et al.; 1988). Many of the Cree interviewees in Pickering and James' study (1991) got their information about AIDS from literature obtained from the clinic. Some of the pamphlets and books on AIDS are not effective with less academic adolescents.

Doctors and nurses are seldom mentioned as primary sources of information for young Canadians but they are the most desirable (King et al., 1988, Santé Québec, 1991). Medical personnel are seen as credible and are more effective in changing sexual behavior than other more popular sources. Adolescents who discuss AIDS with a physician are more likely to use

condoms than others (Hingson,1990) Cree parents interviewed by Pickering & James (1991) communicated their desire to see doctors providing information on AIDS to their children

Most studies show that contribution of the church as a source of information on sexuality is negligible and undesired because it is generally perceived as moralistic and biased. (Thornburg, 1972; Schofield, 1973; Davis & Harris, 1982, King et al, 1988).

## **2.7 ATTITUDES**

Since increased knowledge is not sufficient to modify behavior, it is imperative to identify the attitudes that might promote or prevent the acquisition of safer sexual practices. Positive attitudes towards the use of condoms, feeling of personal vulnerability and social acceptability of safe sex practices motivate adolescents to act in accordance with their knowledge.

Positive attitude towards condoms are associated with high levels of condom use (King & Wright, 1993) Hingson et al (1990) found that the adolescents who believe that condoms are effective, do not reduce sexual pleasure, and are not embarrassing to use are more likely to adopt them. Cree adolescents are reported to have negative attitudes towards condoms (Reigneau, 1990). Some do not like to use them, others are shy to get them from the clinic or from the store (Pickering & James, 1991). None of the girls interviewed by Pickering & James (1991) thought that it was realistic for a girl to ask her boyfriend to wear a condom

Fear of contracting AIDS encourages adolescents to use protection during sexual intercourse. Young people are more likely to adopt safe sex practices if they perceive the problem of AIDS contamination as serious (Hingson et al, 1990, King & Wright, 1993) Most Cree people interviewed by Pickering & James (1991) do not feel personally threatened by AIDS because most don't know anyone with the disease. They knew about the AIDS virus and believe

that AIDS could be a problem in the future for the young people as well as the survival of the Cree nation especially as they become more mobile i.e. hockey tournaments, going out to school, etc

King & Wright (1993) emphasize the necessity for change of the social norms as well as individual change of attitudes. In the past, much shame has been attached to sexual activity. Young people who are ashamed of their sexual activity are reluctant to acquire condoms. Peer pressure is responsible for many adolescents engaging in sexual behavior despite their unreadiness. For adolescents, peer approval is so important that they may risk their health and lives in order to conform to the group (Thornburg, 1972). The Cree interviewees in Pickering and James' study (1991) confirm the great importance of peers for teenagers. Many young people claimed partying, drinking and participating in the activities of the group against their will because they feared rejection.

Peers are also responsible for transmitting stereotypes and misconceptions about sex (Schofield, 1973, Diver, 1985, Frappier, 1988). King et al (1988) found a general lack of tolerance among adolescents towards carriers of the AIDS virus. Negative attitudes towards HIV carriers is associated with feelings of invulnerability and increase the likelihood of high risk behavior. Many young people have negative attitudes towards high risk groups such as homosexuals and intravenous drug users (King et al 1988, King & Wright, 1993). This must be considered seriously because of the large number of young Canadians that are likely to be infected in the future unless a cure is found.

## **2.8 AT-RISK SEXUAL BEHAVIOR**

About half of Canadian adolescents aged 16, and 75% of the 19 year olds have already had sexual intercourse at least once (King et al ,1989, Santé Québec, 1992, King & Wright, 1993). Many Cree teenagers become sexually active around 11-13 years of age (Reigneau, 1990) and most are sexually active by age 14 (Pickering & James,1991). The earlier the adolescents engage in sexual activity, the more likely they are to contract AIDS.

Sixty percent of 16 year old sexually active Canadian adolescents reported having two or more sexual partners (King et al, 1988, King & Wright, 1993). The greater the number of sexual partners the more likely a person is of contracting AIDS. Most adolescents practice serial monogamy, i.e. they have a succession of partners but not more than one at a time. Since they have a monogamous relationship, they tend to be less careful. However, they may not be aware of the complete sexual history of their partners. Short term relationships and "one night stands" with strangers are more likely to result in STD and HIV infection than long term relationships. In a long lasting relationship the partners develop more intimacy and tend to discuss protection more openly.

Although the HIV virus can be contracted by heterosexuals, male homosexuals are the most at risk because in many cases they practice anal sex and are more likely to have multiple partners (King & Wright, 1993). It is not unusual that adolescents experiment with persons of the same sex without being homosexual (King et al, 1988). Homosexual experimentation seems to be rare among Cree youth and adult homosexuality is unheard of (Reigneau, 1990; Pickering & James, 1991). Because of the taboo attached to homosexuality in Cree society it is likely that an individual with homosexual attractions would be tempted to deny or repress its tendencies unless alcohol or drugs are involved.

Sexual activity accompanied by refusal to use condoms puts young people at risk of HIV transmission. Only 14 percent of young Canadians frequently having sexual intercourse report using condoms each time (King et al., 1988). The high rate of teen pregnancies and sexually transmitted diseases prevalent among the young population is a sign that unprotected sex is frequent.

Individuals who have a past history of sexually transmitted diseases are also more at-risk of contracting AIDS. That is so primarily because the incidence of STD indicate that they do not always use protection but also because their physical vulnerability to the HIV virus is increased by 5 to 50 times (King et al., 1988, King & Wright, 1993).

## **2.9 CONSUMPTION OF ALCOHOL AND DRUGS**

Substance use is popular among adolescents. Many take drugs and alcohol as a result of the influence of their peers. Consumption of drugs and alcohol reduces inhibitions towards sexual behavior, leads to failure to practice safe sex, and impairs the body's immune responses (King & Wright, 1993). Six percent of young Canadians become sexually active because they are under the influence of alcohol or drugs (King et al., 1988). Usage of drugs or alcohol impairs people's capacity to make sound decisions, therefore, adolescents might become involved in unplanned sex without protection. Adolescents' first sexual intercourse is more likely to occur without the use of condom if they have been drinking (King et al., 1989, Hingson et al., 1990).

Hingson's (1990) research shows that adolescents who consume alcohol daily are less likely to use condoms regularly than those who remain sober. Regular users of marijuana and other drugs are also less likely to practice safe sex. Among respondents who drink and use drugs, 16% use condoms less often after drinking and 25% after drug use. These findings tend to confirm that concerns about condom use may seem less pressing when people are intoxicated.

A number of Cree interviewed on the subject responded that some of the adolescents were becoming sexually active because they were less inhibited after drinking alcohol. Much drinking and sexual activity have been reported to take place during sports tournaments when teenagers travel to other communities (Pickering & James, 1991).

## **2.10 SUMMARY OF THE LITERATURE REVIEW**

AIDS endangers the health and lives of adolescents. Young people keep engaging in unprotected sexual activities without considering the serious consequences of contracting AIDS.

Perceived accuracy and reliability of the sources of information play an important role in determining behavior. Although some sex education is likely to be provided through the P.S.D. course, adolescents do not gain information on sexuality and AIDS only from school. In fact, several studies report that a larger amount of knowledge is acquired on an informal basis through peers, parents, literature and television. Even if these are reported as the most frequent sources of information many adolescents seem to favor more formal approaches of the school and medical personnel. The information received through peers and television is perceived as inaccurate. Informing adolescents of the mode of transmission and consequences of contracting AIDS, and teaching them methods of prevention is not always sufficient, however, to lead them to adopt safe sexual behavior.

Attitudes often inhibit the application of safety measures. A large number of young Canadians would not like to come into contact with people affected by AIDS. Some are afraid of contracting AIDS but not afraid enough to protect themselves during sexual intercourse. Adolescents in general have this feeling of invulnerability that prevents them from perceiving the possibility of becoming ill. Condoms are not always used because they are embarrassing or simply disliked. The influence of peer pressure in dictating the actions of the adolescents is not to be underestimated.

A number of at-risk sexual behaviors: early sexual involvement, anal sex, multiple partners, casual sex and previous incidence of STD have been identified as increasing the spread of AIDS. Unprotected sex is also more frequently following the consumption of drugs and alcohol.

## **2.11 THEORETICAL FRAMEWORKS**

Many of the studies reviewed in this paper do not explicitly define their theoretical framework. AIDS prevention is a fairly new field and the models that have been used have come from the field of social psychology rather than

the field of education. Their primary function was to explain the reasons for high-risk behavior. Two models are discussed in this paper, the Health Belief Model (HBM) which is an early model extensively used to explain a variety of health-related behaviors, and the AIDS Risk Reduction Model (ARRM) which has been developed more recently to better suit the specific needs of AIDS research.

### **2.10.1 The Health Belief Model (HBM)**

It is often assumed that informing people of the danger of AIDS will lead them to assume safer sexual practices. Numerous studies clearly show that increasing the level of knowledge about health threatening situation does not always result in risk-reduction behaviors. The Health Belief Model (HBM) was developed in the early 1950's to explain why some people are ready to change their behavior while others are not. Since then it has been extensively used as a theoretical basis for a large number of studies concerned with prevention of illnesses and acquisition of healthy behavior (Carmel, 1990/91, Janz & Becker, 1984).

The HBM suggests that preventive health behavior can be predicted as a function of an individual's specific set of beliefs, *perceived personal susceptibility* to the disease, *perceived severity* of the disease, *perceived benefits* in changing behavior and *perceived barriers* to undertake the recommended behavior (Janz & Becker, 1984). More specifically in relation to AIDS, people are more likely to use prophylactics if they feel the following: they are personally susceptible to contracting AIDS, the consequences of contamination are severe, protective measures such as condom use are effective in preventing transmission and, the disadvantages of using condoms do not outweigh the benefits (Hingson et al, 1990).

In addition, other factors, called "cues to action" might stimulate the individual to change behavior. For example, learning that an acquaintance has died of AIDS or being advised by the doctor to use condoms can trigger a change of attitude and behavior. Rational decision-making can, however, be inhibited by the use of alcohol and drugs (Janz & Becker, 1984, Hingson et al, 1990).

A review of the research based on the HBM recognizes some usefulness of the model in predicting health behavior (Janz & Becker, 1984). Ultimately it was found that this model was incomplete as it did not explain why behavior does not always correspond to beliefs. Behavior is also influenced by peer pressures, social norms and other factors which are not controlled by the individual (Carmel, 1990/91, King & Wright, 1993).

### 2.11 ^ The AIDS RISK Reduction Model (ARRM)

More recently, a more comprehensive theoretical framework, the AIDS Risk Reduction Model (ARRM) was designed to better analyse the factors leading to at-risk sexual behavior. Concepts from the HBM as well as other social and behavioral science theories have been combined to form the ARRM (Boyer & Kegeles, 1991).

The ARRM explains why some people adopt preventive measures and others engage in high risk activities. According to this theory, individuals have to go through three stages before changing their behavior. They must; (1) recognize that their actions entail some risks, (2) decide to alter their behaviors and, (3) overcome the barriers that prevent them from enacting their decision (Boyer & Kegeles, 1991).

**Stage 1- To identify and label one's activities as risky**, the adolescents need some *basic knowledge of HIV transmission*. They must reject *stereotypes* (only homosexuals and prostitutes get AIDS) and admit that they are *personally susceptible* of contracting AIDS. The *egocentrism* (It couldn't happen to me) so typical of adolescence has to be overcome. *Acceptance of one's sexuality* is necessary for effective use of prophylactics. Adolescents who are ashamed of their action might deny their sexual involvement, consequently, are not likely to carry condoms. Finally, *peer group* recognition of the risks associated with unprotected sex is an important influence on adolescents' perception of their vulnerability (Boyer & Kegeles, 1991).



**Stage 2- Commitment to engaging in low risk activities** follows one's recognition of personal vulnerability. A feeling of *self efficacy* (I know how to use condoms, I am capable of ) is necessary before committing oneself to reducing one's risk behavior. In addition, the adolescent has to *perceive the benefits as being greater than the costs* of adopting safer sexual practices (Boyer & Kegeles, 1991).

**Stage 3 - Enacting the commitment to reduce risky activities** means that *sexual communication abilities* are necessary in order for the decision to take place. For example, even if a girl decides she would like her partner to wear a condom during sexual intercourse, she needs to be able to communicate her decision to him. Also adolescents must be able to *seek help* from their family, friends or doctor when necessary in order to overcome some of the barriers to safer sexual behavior. Finally, it is necessary for the adolescent to have a certain degree of *anxiety* about the possibility of contracting AIDS in order to adopt safer sexual practices (Boyer & Kegeles, 1991)

Other variables are also associated with high risk behavior. Hingson et al (1990) have shown that the use of *alcohol and drugs* is a strong predictor of unsafe sexual practice among adolescents.

Since this model is fairly recent its validity and reliability have to be confirmed through further research (King & Wright, 1993). The questionnaire used in this survey was designed in order to identify the factors that play a greater role in determining the behavior of the target population. The above model has guided this research.

## CHAPTER III - METHODOLOGY

### 3.1 Introduction

Since 1988, the researcher has been a teacher in the Cree School Board. As part of her teaching load, she was assigned a few sections of PSD (Personal and social Development). Faced with a wide range of topics to cover and a limited amount of instructional time, she was forced to select the objectives that were more likely to respond to the needs of the students. The PSD program being fairly new and having no record of what objectives had been covered in the past years prompted the researcher to conduct an informal survey among the students to find out which of the PSD topics were of most interest to them. A large number of students requested instruction on sexually transmitted diseases (STD) and AIDS.

An investigation for appropriate teaching materials on AIDS and STD led the researcher to establish contacts with different resource people. A meeting with the Coordinator of Community Health Programs of the Cree Health Board confirmed the need for more information on Cree adolescent sexuality in order to establish proper prevention programs.

Further contacts with Dr. Joyce Pickering of the Northern Module of the Montreal General Hospital encouraged the researcher to pursue her research in the field of Cree adolescent sexuality. Dr. Pickering herself had made a first draft of a KAP (Knowledge, Attitudes, Practices) questionnaire to be used with the Cree population as a whole. This questionnaire, however, was never administered.

The sample was therefore selected because a need for information on Cree adolescent sexuality was obvious to the researcher and other resource people. The written questionnaire seems to be the standard instrument used in similar research. This chapter includes a description of the sample and explains how the instrument was developed and how the research was conducted.

### 3.2 Sample

The sample for this study was drawn from Wemindji, a village of close to 1000 people located at the mouth of the Maquatua River close to the coast of James Bay. The population is almost exclusively Cree with the exception of a handful of teachers, nurses and other workers that are resident on a temporary basis. Cree is the main language spoken at home and in the community. Education however is mostly provided in English.

The village has a complete primary and secondary school, a clinic, a post office, an arena, a community centre, a small shopping mall with a restaurant, a church, and a hotel. Economic development in Wemindji includes a mini hydro-electric dam, a fox farm, a local airline and a construction company.

The village is not accessible by road except for a short period in the winter in which an ice road links the village to the LG-2 road. An airport on the outskirts of the village provides a daily flight service with two small airlines, Air Creebec and Air Wemindji. The local radio station transmits information in Cree and a large number of television channels are available through the community satellite dish.

The present sample is composed of the adolescents from the eight secondary classes of Maquatua Eeyou School in Wemindji. Since the school is fairly small (123 high school students registered on January 31, 1993) all of the ones present on the days of the survey were asked to participate. Ninety four (94) students answered the questionnaire: 48.4% (44) were girls and 51.6% (47) were boys. The students' ages ranged from twelve to twenty one years. Because of a lack of resources and difficulties in obtaining access, no other schools were surveyed.

---

<sup>2</sup> Maquatua Eeyou = Cree words meaning the people of the loon (a type of bird)

### 3.3 Instrument

The delicate nature of the subject discussed in this research calls for confidentiality of the responses. Because of shyness, face to face interviews were avoided so that it would not be difficult for the adolescents to give truthful answers in regard to personal sexual activities and beliefs. As mentioned earlier, other studies (Reigneau, 1990, Pickering and James, 1991) have used interviewing techniques with selected members of the Cree communities.

Written questionnaires are widely used to conduct studies on AIDS. This instrument is often preferred as it insures confidentiality and allows the researcher to reach a large number of subjects. Over and above that it provides the opportunity for quantitative measurements.

The questionnaire used in this study has been designed by the researcher using model questions from the "Canada Youth and AIDS Survey", "Enquete Québécoise sur les facteurs de risque associés au SIDA et aux MTS", a survey designed for the Cree population by Joyce Pickering, as well as several other questionnaires designed for native populations. The questions were modified and adapted to reflect the Cree reality and the age of the participants.

The questionnaire was written in English as most secondary students have acquired a considerable level of proficiency in reading the language of instruction. Cree language, although widely practised orally, is not mastered by all students in its written form. All the same particular care was taken to keep the language as simple as possible because of the low reading level of some of the students.

The questionnaire is composed of sixty-two questions divided into four main sections: sources of information, knowledge, attitudes and behavior. All of the questions are forced choice questions and can be answered quickly. The instrument was pretested with a few individual students to ensure their understanding of the questions and some changes were made.

### **3.4 Procedures**

Permission to access a Cree community for research purpose was not easy to obtain. As discussed by Darou (1989) the Cree of Northern Quebec have often been reluctant to become subjects of research especially when such research requires self-disclosure. The actual struggle of the Cree against further hydro-electric development projects in the James Bay area has repeatedly exposed them to the media. Their experience with the media has created in some Cree a fear of being depicted in a way which might not be politically favourable.

After informing them of the purpose of the study, permission was finally obtained from the principal and the School Committee of Maquatua Eeyou School. In the Cree School Board, the School Committee is composed of four elected parents and one Band Council member. They have the power to make important decisions in relation to most aspects of school life. The researcher was known to the community as she had been a teacher in the school in 1990-91.

The questionnaires were sent to the school by mail. Because of financial restrictions, the researcher was not able to go in person (the plane ticket costs nearly \$1000). Teachers were asked to administer the questionnaire within their PS D. class. The purpose of the study and the necessity of providing truthful and accurate information was explained to the students in the covering page. Students were assured of the confidentiality of their answers and were allowed to withdraw if they wished. In order to keep the answers anonymous, no names or class levels were indicated on the questionnaires.

### **3.5 ANALYSIS OF THE DATA**

The data was compiled and analysed statistically using the "Statpac Gold IV" program. Frequency distributions and means were calculated for the appropriate items. Further analysis included comparison of the data by age group, gender and sexual activity. Correlations and analysis of variance were also used to analyse the relationships between knowledge, attitudes and behavior.

## **CHAPTER 4 - PRESENTATION OF THE DATA**

### **4.1 CHARACTERISTICS OF THE SAMPLE**

The questionnaire was administered to each class from secondary I to V. Consequently, any student attending school on the day of the survey was asked to complete a questionnaire. Students were free to refuse if they wished. A total of 94 completed questionnaires was collected out of a possibility of 123 (total number of students registered in High School on January 31, 1993). This guaranteed a maximum error limit of plus or minus 5 percent at a 95 percent level of confidence.

Among the 94 students who participated in the survey, 48% (44) were female and 52% (47) were male. The three remaining students did not specify their gender. The students' ages ranged from 12 to 21 years, with a mean age of 16 years. For analysis purposes, the group was divided into two subgroups representing early adolescence (12-15 years 44%, 40) and late adolescence (16-21 years 56%, 50), four subjects did not provide their age. Because some Cree students repeat grades due to absenteeism, learning difficulties or social problems, grade levels do not necessarily correspond to a specific age group. Given the nature of the research, age was considered a more important characteristic than grade level in predicting behavior.

All of the subjects (n= 94) are Cree, although a few of them might have mixed blood. Since the questionnaire was only administered in the school, all of the subjects are students. Because of the small size of the sample and to preserve the anonymous character of the survey there was no attempt to identify other demographic criteria such as socio-economic status or employment and education level of the parents.

## 4.2 KNOWLEDGE OF AIDS

Twenty-two questionnaire items were designed to measure knowledge of AIDS. They included True-False questions about the nature of the disease, the modes of transmission and the preventive measures. Table 4.1 shows the percentage of correct answers for each of the items.

In spite of a fairly high score on the knowledge test (mean score = 82.3%), the students taking part in the survey had some deficiencies in regard to general knowledge of AIDS. Forty-six percent of the respondents did not know that AIDS cannot be cured even if treated early. Many knew that you cannot tell if a person has AIDS by looking at him/her (82.8%) but only 77.4% knew that once infected with AIDS one does not die within a few weeks and only 73.9% that a person carrying the AIDS virus can have no sign of illness for seven years or more. The lack of exposure to people infected with the AIDS virus might explain why some of these facts are still unknown.

Knowledge of the modes of transmission were well understood by most respondents. A majority of students knew that AIDS could be transmitted through sexual contact (96.8%) and by sharing needles (97.8%). A large percentage of students were also aware that a person with many sexual partners has more chance of catching AIDS (87.1%) and that the AIDS virus could be transmitted from a female to a male during sexual intercourse (87.0%) and from a female to her unborn child during pregnancy (87.0%). They also knew that AIDS could not be transmitted by shaking hands (96.8%), drinking from the same cup (94.6%), kissing on the cheek (94.6%) or sitting on the same toilet seat (91.4%). Several students however, were unsure if AIDS could be transmitted by sneezing or coughing on the other person (only 76.1% answered correctly) or by being bitten by the same mosquito as a person having AIDS (58.7% answered correctly).

**Table 4.1 - Knowledge of AIDS (% correct)**

Items	total(%)
9 A person who has AIDS can transmit it to another person	
by shaking hands (false)	96.8
by sharing drug needles (true)	97.8
by drinking from the same cup (false)	94.6
by kissing on the cheek (false)	94.6
by having sex (true)	96.8
by sitting on the same toilet seat (false)	91.4
by being bitten by the same mosquito (false)	58.7
by sneezing or coughing on the other person (false)	76.1
10 The AIDS virus can be spread from a female to her unborn child during pregnancy (true)	87.0
11 The AIDS virus may be spread from a female to a male during sexual intercourse (true)	87.0
12 You can tell if a person has AIDS by his or her looks (false)	82.8
13 Once infected with the AIDS virus, a person usually dies within a few weeks (false)	77.4
14 A person can have the AIDS virus for seven or more years without having signs of illness (true)	73.9
15 There are tests to find out if a person has the AIDS virus (true)	91.5
16 AIDS can be cured if treated early (false)	53.8
17 When people have sex, using a condom helps protect them from the AIDS virus (true)	88.2
18 If a woman is using the birth control pill, she cannot catch AIDS (f)	77.2
19 Not having sex is the best protection against AIDS (true)	58.1
20 A condom can be used more than once (false)	90.2
21 A person with many sexual partners has more chance to catch the AIDS virus (true)	87.1
22 A person needs a medical prescription to buy condoms in Canada (false)	81.5
23 Condoms are available at the clinic (true)	95.7



In regard to prevention, most respondents were aware that there is a test to find out if a person is infected with the AIDS virus (91.5%) and that condoms are helpful in providing protection against AIDS (88.2%). They knew that condoms can be obtained without medical prescription (81.5%) and were available at the clinic (95.7%). In fact, anyone can discretely get them free from the clinic's washroom. It is alarming, however, that almost one student out of four is not aware that birth control pills are not effective against AIDS and that one out of ten students still does not know that condoms can not be used more than once. Only 58.1% of the students acknowledged abstinence as the best protection against AIDS. Perhaps it is to show their unwillingness to abstain from sexual activities that they have answered negatively to this question.

A knowledge score for each student was obtained by adding all of the items answered correctly. As expected, Cree students in general had a fairly good knowledge about AIDS as they obtained a mean score of 18.1 out of 22. There is a significant difference however, between early adolescents and late adolescents ( $p \leq .05$ ,  $F=4.41$ ) in knowledge level, that is, late adolescents ( $n=187$ ) have significantly more knowledge than early adolescents ( $n=173$ ). The difference ( $p \leq .01$ ,  $F=5.81$ ) is even more significant between sexually active students ( $n=190$ ) and those who are non-active ( $n=167$ ). Sexually active students know more about AIDS partly because they are in general older (mean age = 17.2 years) than those who are not sexually active (mean age = 15.7 years) but also because their sexual experiences might have led them to be more receptive to information on sex related issues.

A question was asked to find out the amount of instruction on sexuality and AIDS received by the students. Table 4.2 shows that the students in general have received more instruction about AIDS (56.4% attended two sessions or more) than sexuality (25.9%). Half of the students never had instruction on sexuality while only one fifth had no instruction on AIDS.

**Table 4.2**

**Number of classes attended on sexuality and AIDS (%)**

<b>Number of classes</b>	<b>never</b>	<b>once</b>	<b>twice</b>	<b>more</b>
Classes on sexuality	50.6	23.5	7.1	18.8
Classes on AIDS	22.4	21.2	28.2	28.2

Students who had attended classes or sessions on AIDS were also more likely to have attended classes on sexuality ( $p < 0.01$ ,  $r = 0.446$ ). This positive correlation suggests that AIDS prevention could have been part of a wider sex education program. There is no correlation between number of classes or sessions attended on the subject of AIDS and knowledge score. This might be a sign that the programs presently used do not have the desired effects. In spite of this 100% of the girls and 80.5% of the boys expressed their desire to learn more about AIDS. Less students however were eager to learn about sexuality as only 75% requested more instruction.

### **4.3 SOURCES OF INFORMATION ABOUT SEXUALITY AND AIDS**

One of the purposes of the research was to find out where the young Cree learn the most about sexuality and AIDS. Students were asked to identify from a list of 11 sources their main sources of information about sexuality and AIDS. Students were directed to pick as many sources as they wished for each of the topics. The question was repeated again but the second time they were asked to identify their preferred sources.

### **4.3.1 Main sources**

#### **A.SEXUALITY**

As shown on table 4.3 the main source of information about sexuality for all groups is clearly television. We know nothing about the quality of information received by the respondents, but pornographic material, readily accessible via video rentals and the community satellite dish, provides without doubt a certain type of information on sexuality. Further research would be needed to clarify exactly what is learned through television.

Female respondents and older adolescents chose friends as their second source of information on sexuality, while male respondents and younger adolescents placed friends in third place. The importance of friends as a source of information on sexuality is easily explained as 63.3% of the respondents claimed discussing sexuality with their close friends (see Table 4.12). Older adolescents discuss more about sexuality with their friends (73.9%) than their younger counterparts (52.3%). This might explain why friends are ranked higher for the former than for the latter.

Printed material was ranked second for males and younger adolescents and third for females and older adolescents. These results are surprising, given the difficulties in obtaining newspapers, magazines or books in the village. Nevertheless, pamphlets on pregnancy and STD are made available through the school and the clinic and, a Cree informer tells me, that pornographic magazines are definitely in circulation.

As expected, mothers were ranked much higher among female respondents than for their male counterparts. School and clinic were ranked only in fourth and fifth place. Fathers, church and radio were of little importance as a source of information on sexuality.

**Table 4.3**  
**Main sources of information about sexuality by gender and age group(% and rank)**

Source	male	female	<16	≥16	all
television	25.4 (1)	21.3 (1)	18.8 (1)	29.1(1)	23.7 (1)
radio	2.5	1.1	2.7	1.0	1.9
printed material	19.5 (2)	12.8 (3)	17.0 (2)	16.5 (3)	16.7 (2)
school	8.5 (4)	11.7 (4)	9.8 (4)	10.7(4)	10.2 (3)
friends	18.6 (3)	14.9 (2)	13.4 (3)	20.4(2)	16.7 (2)
mother	1.7	12.8 (3)	8.0	4.9	6.5
father	2.5	2.1	4.5	0.0	2.3
other family member	5.9	8.5	7.1	6.8	7.0
clinic	8.5 (4)	10.6	9.8 (4)	8.7	9.3 (4)
church	0.8	2.1	1.8	1.0	1.4
other sources	5.9	2.1	7.1	1.0	4.2

## **B. AIDS**

Clinic, school and television ranked high as communicators of information on AIDS (see table 4.4). The clinic often displays posters on the topic of AIDS, pamphlets are readily available and a visit to the clinic makes it easy for anyone to gain information on AIDS, if they wish. The high ranking of school and clinic might also be attributed to the effort of both parties to provide information sessions or classes on the subject of AIDS as 78% of the students have attended at least one class or session on AIDS compared to only 49% on sexuality.

The effort of television to inform the public about AIDS is also recognized. The fifth rank obtained by the radio can be attributed to the AIDS prevention campaign broadcasted on community radio. The low ranking reserved for mothers and fathers as source of information on AIDS can be explained by the fact that 63.8% of the students feel that their parents do not know enough about AIDS to inform them.

**Table 4.4**  
**Main sources of information about AIDS by gender and age group (% and rank)**

Source	male	female	<16	≥16	all
television	131 (3)	178 (1)	140 (3)	170 (2)	157 (3)
radio	91 (4)	83	77	93	86
printed material	80	146 (4)	91 (4)	124 (4)	110 (4)
school	153 (2)	159 (3)	161 (1)	160 (3)	160 (2)
friends	34	57	49	41	45
mother	80	64	91 (4)	57	71
father	80	57	84	57	68
other family member	85	57	84	62	71
clinic	170 (1)	172 (2)	147 (2)	186 (1)	169 (1)
church	57	25	56	31	42
other sources	40	0.0	2.1	2.1	2.1

### **4.3.2 Preferred sources**

#### **A. SEXUALITY**

Table 4.5 shows that male respondents and young adolescents are quite happy to receive their information on sexuality through television as it is not only their main source but also their preferred source. Girls and older adolescents, however, would much prefer to receive their information on sexuality from the clinic. The clinic is likely to be associated with sexuality as it is the referral centre for pregnancy and birth control. For many of the sexually active girls, the clinic will be a big part of their lives, unlike their male partners. It is also possible that the clinic is seen as more reliable than other sources.

Friends, as a source of information on sexuality, continue to be preferred by many young people, especially for male students. Males preferred sources of information are in fact, very similar to the ones identified as their main sources. Girls, in opposition to the boys, rank mothers as their second choice, and consider friends only on the sixth rank. The older adolescents recognize the need for sex education in the school. Radio and church are seldom mentioned as preferred sources of information.

**Table 45**  
**Preferred sources of information about Sexuality by gender and age group**  
**(% & rank)**

Source	male	female	<16	≥16	all
television	21.8 (1)	7.1	21.0 (1)	10.4	25.3 (1)
radio	1.1	1.2	0.0	2.1	1.1
printed material	13.8 (3)	10.6 (4)	13.6 (2)	10.4	11.9
school	12.6 (4)	16.5 (3)	11.1 (4)	17.7 (2)	14.7 (3)
friends	17.2 (2)	8.2	13.6 (2)	12.5 (3)	13.0 (4)
mother	3.4	18.8 (2)	9.9	11.5 (4)	10.7
father	6.9	7.1	6.2	7.3	6.8
other family member	5.7	8.2	8.6	5.2	6.8
clinic	12.6 (4)	20.0 (1)	12.3 (3)	19.8 (1)	16.4 (2)
church	1.1	1.2	0.0	2.1	1.1
other sources	3.4	1.2	3.7	1.0	2.3

## **B. AIDS**

While there is much differences between the groups in their preferred source of information on sexuality, a large proportion of students agreed that they would prefer to have information on AIDS from the clinic and the school (see table 4.6). Television, printed material and radio also rank high. Perhaps young Cree feel that information about AIDS should be transmitted by more formal authorities. While friends could inform them about sexuality, little desire is expressed to see them transmitting information on AIDS. It is likely that the respondents do not consider their friends competent enough to give them accurate information.

Although television plays a major role as the main source and preferred source of information on sexuality and AIDS there are great differences between gender and age groups in their subsequent choices. Preferred sources of information should be considered carefully when planning educational intervention among the adolescent population.

**Table 4.6**  
**Preferred sources of information about AIDS by gender and age groups**  
**(%)**

Source	male	female	<16	≥16	all
television	11.9 (2)	12.8 (4)	10.0 (4)	14.1 (3)	12.1 (3)
radio	11.3 (3)	8.0	10.7 (3)	8.7	9.7
printed material	8.1	13.6 (3)	7.9	12.8 (4)	10.4 (4)
school	16.9 (1)	16.8 (2)	16.4 (2)	18.1 (2)	17.3 (2)
friends	3.8	5.6	6.4	2.7	4.5
mother	9.4	7.2	8.6	8.1	8.3
father	7.5	7.2	8.6	6.0	7.3
other family member	8.8	5.6	8.6	6.0	7.3
clinic	16.9 (1)	19.2 (10)	16.4 (1)	20.1 (1)	18.3 (1)
church	4.4	3.2	5.0	2.7	3.8
other sources	1.3	0.8	1.4	0.7	1.0

#### **4.4 ATTITUDES**

Guided by the AIDS Risk Reduction Model (ARRM), twenty six questionnaire items were selected to reflect the different attitudinal factors believed to play a role in the determination of sexual behavior of adolescents i. e. myths and stereotypical thinking, fear of AIDS, perceived personal vulnerability, influence of peers, sexual communication abilities, feeling of self-efficacy and sexual permissiveness. In addition, attitudes towards people with AIDS have been assessed as an indicator of possible consequences of AIDS contamination within the community.

The respondents were asked to answer *agree* or *disagree* to each of the items. A Likert scale should have been used with the older students as it would have allowed the researcher to run factor analysis and correlations on these items. The researcher did not use the Likert scale as she felt that it might have been confusing for some of the younger students.

#### **4.4.1 Attitude towards people with AIDS**

In order to describe the attitude of Cree students towards people with AIDS , five questions were included in the questionnaire . The items presented in Table 4.7, concern restricting the activities of people with HIV infection, befriending a person with AIDS, and believing that people with AIDS are "getting what they deserve" . Frequencies were computed according to gender, age groups and participation in sexual activities. A clear pattern emerged from this analysis

More tolerance towards people with AIDS is shown by the participants who are female, over 15 years of age and those who are sexually active compared to the students who are male, under 16 years of age and non-active sexually . This pattern might reflect in part, the fact that more of the older adolescents are also sexually active . The gender difference might be partially attributed to the higher level of maturity of girls compare to boys of the same age.

The highest level of tolerance was expressed in regard to the statement concerning asking people with the AIDS virus to live away from other people as only 85% of the participants agreed with that proposition . Much less tolerance is reported, however, in regard of letting AIDS infected people attend regular classes (13.6% to 32.0% disagreed), staying friends with the person (6.5 to 28% disagreed) or losing their jobs (8.7% to 24% agreed) . Those non-active sexually are clearly the least tolerant of all in those items . These figures, however, show slightly more tolerance than the national average reported by King, M. and al

A distressingly high percentage of the participants (17%) (23.1% of the non-active sexually, 23.4% of the male and 29.5% of the young adolescents) believe that anyone who get AIDS deserves it . These figures are much higher than the national average ranging from 10% to 16% (King, M. et al.) This might be because these students are still associating AIDS primarily with homosexuality or promiscuity . They would probably not include AIDS babies or people infected by blood transfusion, etc.



Table 4.7

## Attitudes towards people with AIDS, by gender, age group and sexual activity (%)

Items		m	f	<16	≥16	s/a <sup>1</sup>	n/a <sup>1</sup>	all
24 People who have the AIDS virus should be allowed to attend regular classes	<b>AGREE</b>	80.4	86.4	81.8	85.7	84.8	68.0	83.9
	<b>DISAGREE</b>	19.6	13.6	18.2	14.3	15.2	32.0	16.1
25 If one of my friend had contracted the AIDS virus, I would stay friend with him/her	<b>AGREE</b>	76.1	88.6	68.2	91.8	93.5	72.0	80.6
	<b>DISAGREE</b>	23.9	11.4	31.8	8.2	6.5	28.0	19.4
26 Anyone who gets AIDS deserves it	<b>AGREE</b>	23.4	6.8	29.5	6.0	15.2	23.1	17.0
	<b>DISAGREE</b>	76.6	93.2	70.5	94.0	84.8	76.9	83.0
27 People who have AIDS should be asked to live away from other people.	<b>AGREE</b>	10.6	6.8	13.6	4.0	10.9	11.5	8.5
	<b>DISAGREE</b>	89.4	93.2	86.4	96.0	89.1	88.5	91.5
28 People with AIDS should lose their jobs	<b>AGREE</b>	17.4	11.4	18.2	12.2	8.7	24.0	15.1
	<b>DISAGREE</b>	82.6	88.6	81.8	87.8	91.3	76.0	84.9

<sup>1</sup> s/a = sexually active  
n/a = non active sexually

#### **4.4.2 Myths and stereotypical thinking**

Six items have been selected to assess the importance of myths and stereotypes among young Cree people. While some of the items were borrowed from similar research, others were suggested by a person doing preventive health care in a Cree community. Once more a clear pattern of response can be identified, males, young adolescents and those who are not sexually active are more inclined to believe in myths and stereotypes than the females, older students and those who are sexually active.

A strong dose of ethnocentrism tinted the responses of the students. As shown in Table 4.8, 71.7% of the male and 61.5% of all the respondents believed that one is more likely to contract AIDS by having sexual intercourse with someone from the south (in the Cree communities the term "south" is used to designate the rest of Quebec as opposed to Northern Quebec). More than one out of three males, younger adolescents and sexually non-active students felt that AIDS was not likely to come to Wemindji. One fourth of the students (24.4%) was convinced that they were safe from AIDS as long as they did not have partners from outside the community. Even though some of them might have attended, in 1991, the conference of a Cree from Alberta affected by AIDS, 24% of the non-active and 10% of the whole sample thought that Cree people could not get AIDS.

Anyone interested in prevention of AIDS among Cree adolescents should also be aware of the prevalence of some common myths. One student out of 5 believed that only homosexuals and prostitutes can get AIDS. Finally, over 40% of the males and the non-active adolescents and more than a quarter of the whole sample felt that they could avoid AIDS by keeping themselves clean. These myths are also commonly found in the Canadian population as a whole.

Table 4.8

**Myths and stereotypical thinking, by gender, age group and sexual activity (%)**

Items		m	f	<16	≥16	s/a	n/a	all
31 A person who does not have sexual partners outside the community is safe from AIDS.	<b>AGREE</b>	23.4	22.5	35.7	14.6	15.2	41.7	24.4
	<b>DISAGREE</b>	76.6	77.5	64.3	85.4	84.8	58.3	75.6
35. Cree people cannot get AIDS	<b>AGREE</b>	11.1	9.5	11.9	8.3	2.2	24.0	10.0
	<b>DISAGREE</b>	88.9	90.5	88.1	91.7	97.8	76.0	90.0
37 Only homosexuals and prostitutes get AIDS	<b>AGREE</b>	35.7	7.0	28.6	18.2	13.0	40.0	21.6
	<b>DISAGREE</b>	64.3	93.0	71.4	81.8	87.0	60.0	78.4
39 AIDS is usually found in big cities and it is not likely to come to Wemindji.	<b>AGREE</b>	38.3	22.7	40.9	22.0	15.2	38.5	30.9
	<b>DISAGREE</b>	61.7	77.3	59.1	78.0	84.8	61.5	69.1
40 You are more likely to get AIDS if you have sexual intercourse with someone from the south	<b>AGREE</b>	71.7	50.0	62.8	60.4	60.0	56.0	61.5
	<b>DISAGREE</b>	28.3	50.0	37.2	39.6	40.0	44.0	38.5
49 If I keep myself clean I will not get AIDS	<b>AGREE</b>	40.4	14.6	31.8	23.4	19.6	42.3	27.5
	<b>DISAGREE</b>	59.6	85.4	68.2	76.6	80.4	57.7	72.5

#### 4.4.3 Fear of AIDS and perceived vulnerability

In order to measure the extent in which students fear contracting AIDS and to find out if they believe they can avoid getting contaminated, six questions were selected from other model questionnaires. The results are illustrated in Table 4.9

Females and older students were more worried about getting AIDS (80.5%, 79.2%) and were also more afraid that the Cree nation could be destroyed by AIDS (81.0%, 85.4%) than the males (56.5%) and younger students (54.8%). There were no major differences, however, between the sexually active and non-active youth on those two items.

Ten percent of the students felt that having AIDS was not a "big deal" and this attitude was more likely to be prevalent among those who were not sexually active (15.4%). Twenty percent of the respondents felt that they couldn't personally contract AIDS. The sexually non-active adolescents felt even stronger about this statement (29.2%) and this is justifiable since, as long as they do not have sexual intercourse, their chance of getting AIDS is quite minimal. More than two thirds of the students, especially female (75%) and older students (70.8%), felt they could protect themselves against AIDS. A large percentage of the students (86.7%) claimed that they would ask a new sexual partner to be tested for AIDS. The respondents might feel it would be desirable for their own protection but it is doubtful that this statement really reflects their reality.

In general the level of anxiety about AIDS is fairly high among the Cree students who participated in this study. Nevertheless many of them are confident that they could protect themselves against AIDS.

Table 4.9

**Fear of AIDS and perceived vulnerability, by gender, age group and sexual activity (%)**

Item		m	f	<16	≥16	s/a	n/a	all
36 I am worried about getting AIDS	<b>AGREE</b>	56.5	80.5	54.8	79.2	71.7	76.0	67.8
	<b>DISAGREE</b>	43.5	19.5	45.2	20.8	28.3	24.0	32.2
38 Getting AIDS, "it couldn't happen to me!"	<b>AGREE</b>	18.2	23.3	19.0	20.8	15.6	29.2	20.0
	<b>DISAGREE</b>	81.8	76.7	81.0	79.2	84.4	70.8	80.0
41 If I had a new sexual partner, I would ask that he/she goes for a test to make sure he/she does not have AIDS	<b>AGREE</b>	80.0	92.9	90.7	83.0	91.3	84.6	86.7
	<b>DISAGREE</b>	20.0	7.1	9.3	17.0	8.7	15.4	13.3
42 I am afraid that the Cree nation will be destroyed by AIDS	<b>AGREE</b>	67.4	81.0	60.5	85.4	77.8	76.9	73.6
	<b>DISAGREE</b>	32.6	19.0	39.5	14.6	22.2	23.1	26.4
43 Having AIDS "This is not a big deal"	<b>AGREE</b>	10.6	11.4	11.4	10.0	6.5	15.4	10.6
	<b>DISAGREE</b>	89.4	88.6	88.6	90.0	93.5	84.6	89.4
45 I can keep myself from getting AIDS	<b>AGREE</b>	63.0	75.0	65.9	70.8	65.2	58.3	68.5
	<b>DISAGREE</b>	37.0	25.0	34.1	29.2	34.8	41.7	31.5

#### **4.4.4 Influence of peers**

Based on the personal observation of the researcher and the study of James (1992) on adolescent sexuality, it was expected that peers would have a major influence on sexual behavior of the Cree adolescents. The importance of the peer group is easily understood in a society in which, traditionally, the individuals' survival depended on cooperation with others in vital tasks such as hunting.

The results of the survey as shown on Table 4.10, strongly confirmed our expectations. More than half the young people surveyed admitted that their friends encouraged them to do things they knew were wrong. The most vulnerable of those surveyed, appeared to be the males (63.4%), the younger students (62.5%) and those who are not sexually active (65.2%). Most girls (87.5%) and a large portion of the sample in general (69.3%), indicated that what their friends thought of them was very important. Forty three percent of the sample felt pressures from their friends to drink alcohol. This influence was more significant for the boys (59.6%) than for the girls (23.3%).

#### **4.4.5 Attitudes toward condom use**

In order to protect themselves against AIDS, adolescents have to commit themselves to abstinence or, if they chose to have sexual intercourse, accept to use condoms. Only those students who were sexually active and admitted not always using condoms were asked to answer question number 58 (see Table 4.11). It was felt that younger students who were not sexually active might not have a clear opinion about condom use.

Among those who answered this item, the most important reason for not using condoms was that they found them difficult and embarrassing to obtain (23.5%). This was especially true for girls (26.3%) and younger adolescents (26.5%). The fact that most of them knew that condoms were available in the clinic washroom (see Table 4.1) did not eliminate this barrier. One student out of five

Table 4.10

**Influence of peers, by gender, age group and sexual activity (%)**

Item		m	f	<16	≥16	s/a	n/a	all
29. My friends encourage me to do things I know are wrong	<b>AGREE</b>	63.4	48.8	62.5	51.1	58.1	65.2	56.5
	<b>DISAGREE</b>	36.6	51.2	37.5	48.9	41.9	34.8	43.5
44. I feel pressure from my friends to drink alcohol	<b>AGREE</b>	59.6	23.3	43.2	42.9	44.4	34.6	43.0
	<b>DISAGREE</b>	40.4	76.7	56.8	57.1	55.6	65.4	57.0
47. What my friends think of me is very important	<b>AGREE</b>	53.3	87.5	66.7	71.7	64.4	73.9	69.3
	<b>DISAGREE</b>	46.7	12.5	33.3	28.3	35.6	26.1	30.7

and 31.6% of the girls were shy to propose use of condoms to their partners. One boy out of five complained that condoms reduce pleasure. Most girls did not share this opinion. Almost one quarter of the older adolescents and 18.5% of the whole sample claimed that their partners did not like condoms. Twelve percent of all the respondents did not use condoms because they felt they didn't know how to use them. The price of the condoms and the fact that friends did not use them were not major obstacles to condom use.

Table 4.11

**Attitudes towards condoms, by gender and age group (%)**

Item	m	f	<16	≥16	all
<i>What are your reasons for not always using condoms?</i>					
difficult or embarrassing to get	19.5	26.3	26.5	21.3	23.5
reduce pleasure	22.0	5.3	8.8	17.0	13.6
don't know how to use them	14.6	10.5	14.7	10.6	12.3
too expensive	7.3	2.6	11.8	0.0	4.9
my partner(s) do not like them	19.5	15.8	11.8	23.4	18.5
I am shy to propose it to my partner	9.5	31.6	17.6	21.3	19.8
my friends do not use them	7.3	7.9	8.8	6.4	7.4

**4.4.6 Other barriers to sexual behavior change**

According to the ARRM, other factors also play a role in motivating or discouraging young people from adopting health preventive sexual behavior. Among them are sexual communication abilities, help seeking abilities, feeling of self-efficacy and acceptance of one own sexuality.

As shown on Table 4.12, 63.3% of the students accept to discuss sexuality with their close friends. Older students (73.9%) and those who are sexually active



Table 4.12  
**Other barriers to sexual behavior change, by gender, age group and sexual activity (%)**

Item		m	f	ea	la	sa	na	total
30 It's alright for two people to have sex if they are in love	<b>AGREE</b>	87.0	77.3	81.8	81.6	80.4	80.0	81.7
	<b>DISAGREE</b>	13.0	22.7	18.2	18.4	19.6	20.0	18.3
33 If I thought I had AIDS, I would be too embarrassed to see the doctor	<b>AGREE</b>	28.3	27.9	29.5	27.1	23.9	32.0	28.3
	<b>DISAGREE</b>	71.7	72.1	70.5	72.9	76.1	68.0	71.7
34 I know how to use condoms.	<b>AGREE</b>	81.8	79.5	68.3	93.3	91.3	65.2	81.4
	<b>DISAGREE</b>	18.2	20.5	31.7	6.7	8.7	34.8	18.6
46 I talk about sex with my close friends	<b>AGREE</b>	65.2	63.4	52.3	73.9	69.6	56.0	63.3
	<b>DISAGREE</b>	34.8	36.6	47.7	26.1	30.4	44.0	36.7
48 I am embarrassed when I am with someone of the opposite sex	<b>AGREE</b>	28.6	26.2	32.5	21.3	24.4	29.2	26.4
	<b>DISAGREE</b>	71.4	73.8	67.5	78.7	75.6	70.8	73.6

(69.6%) were more inclined to discuss this topic than other groups of students. It would have been interesting to know how many discuss sexuality openly with their sexual partners.

Although many of them talk to their friends, one student out of four would be too embarrassed to see the doctor if AIDS was suspected. Young people might fear having their name disclosed publicly or being persecuted by their peers if it was known that they had AIDS. The consequences of such action could be disastrous in a small Northern community such as Wemindji. A story has been told to the researcher about an Inuit couple from Northern Quebec burnt alive in their house after having been identified as AIDS carriers. Whether they committed suicide or, the house was set on fire purposely by some community members remain uncertain. Either way it shows the pressure they were under.

Although 91.3 % of the sexually active youth claimed knowing how to use condoms, 18.6% of the all respondents, sexually active or not, feel inefficient in this matter. One quarter of the students feel embarrassed when they are with someone of the opposite sex. A total of 81.7% of all students feel it is alright for two people to have sex if they are in love. Sexual permissiveness is lower among female respondents (77.3%) than male respondents (87.0%). It is likely that mothers play a role in influencing their daughters to preserve their virginity.

#### **4. 5 PATTERNS OF RISK TAKING BEHAVIOR**

The last section of the questionnaire included ten questions on sexual behavior and three questions on substance abuse. The students were first asked if they were sexually active or not. Only 77% of the respondents accepted to answer this question. Only those students who answered positively were asked to answer the nine following items on sexual behavior. Questions on substance abuse were answered by 89.5% of the respondents.

### 4.5.1 Sexual activity

Among the 72 students who answered question number 50, 63.9% said they were sexually active and 36.1% said they were not. Table 4.13 shows very little difference between male and female respondents. Forty-four percent of the young adolescents and 80 percent of the older adolescents have already had sexual intercourse.

Table 4.13

#### Sexual activity by gender and age groups (%)

	male	female	<16	≥16	all
Sexually active	64.9	61.8	43.8	80.0	63.9
Non active	35.1	38.2	56.3	20.0	36.1

The average age to engage in sexual activities was found to be 14.3 years. Male respondents had sexual intercourse in general one year earlier (13.8 years) than their female counterparts (14.8 years).

The average number of sexual partners for the sample amount to three but, the average for the boys (3.6 partners) was higher than for the girls (2.5 partners). While 64.8% percent of the sexually active students had only one or two sexual partners, three of the boys claimed having had 10. Whether those figures have been amplified remains unknown.

### 4.5.2 High risk sexual practices

Homosexual relations, casual sex with unknown partners and sexual intercourse outside a regular relationship were identified as high risk sexual practices in term of contracting AIDS. A previous incidence of STD was also a sign of vulnerability to AIDS.

Three male respondents said that they had sexual intercourse with someone of the same sex. It must not necessarily be interpreted that those students have homosexual orientations since, as discussed earlier, sexual experimentation with people of the same sex is common during adolescence.

An important percentage of sexually active respondents claimed having had sexual intercourse with someone who was not their boyfriend/girlfriend (54.8%) and with someone they did not know very well (47.7%). This is likely to have occurred during sports tournaments or similar events when students are travelling to the different communities.

Five students admitted having had sexually transmitted diseases in the past. One case of chlamydia, one case of gonorrhoea and one case of herpes were reported. The remaining students were unable to identify the disease properly. Although the numbers are fairly small, it represents a good percentage of such a small population. In addition, these students did not report using condoms significantly more often than the students who had never been infected by STD.

#### **4.5.3 Condom use**

As seen on Table 4.14, less than one sexually active student out of three carries condoms always or often when they go out with their girlfriend/boyfriend. Only one student out of five always uses condoms when they have sexual intercourse and two thirds of them use condoms seldom or never. Males carry condoms significantly more often than female respondents. In the next section of this chapter, the relationship between condom use and other risk factors will be discussed more extensively.

**Table 4 14**  
**Frequency of condom use and condom carrying**  
**among sexually active adolescents (%)**

Frequency	carry condoms	Use condoms
Always	20 9	19 0
Often	11 6	16 7
Sometimes	32 6	40 5
Never	34 9	23 8

#### **4.5.4 Substance use**

Substance abuse is believed to play a major role in inhibiting safe sexual behavior. In fact, adolescents under the influence of drugs or alcohol have more tendencies to take risks because of impaired judgment. In this study, the respondents were asked to describe the frequency of their alcohol and drug use. The responses were analysed and differences between subgroups were identified.

According to Table 4 15, 28 2 % of the sample never use alcohol and 30 6% sometimes drink alcohol but never get drunk. Those who never drink were more likely to be males (38 6%), younger adolescents (41 0%) and non sexually active (41 7%) rather than females (18 4%), older adolescents (17 4%) and sexually active students (14 0%). However males were more likely to be heavy drinkers (15 9 %) than females (10 5%). The results suggest that more of the females drink but they do so with more moderation than their male counterparts. Analysis of variance show that drinking significantly increases with age ( $p < 0 01$ ,  $F = 13 7$ ) and sexually active respondents drink more than those who are not sexually active ( $p \leq 0 01$ ,  $F = 4 81$ ).

**Table 4 15**  
**Frequency of alcohol use, by gender, age group and sexual activity (%)**

Items	m	f	<16	≥16	s/a	n/a	all
60 How often do you use alcohol?							
* never use alcohol	38.6	18.4	41.0	17.4	14.0	41.7	28.2
* sometimes drink but never get drunk	27.3	31.6	38.5	23.9	30.2	37.5	30.6
* sometimes get drunk, but less than once/month	18.2	39.5	17.9	37.0	39.5	8.3	28.2
* often get drunk, more than once/month	15.9	10.5	2.6	21.7	16.3	12.5	12.9

Marijuana is consumed by almost one student out of three (see Table 4 16) Once more, females (42.5%), older students (39.1%) and sexually active (42.2%) respondents were more likely to consume drugs than males (20.9%), younger students (22.5%) and those who are not sexually active (19.2%) and only a few male respondents use marijuana frequently (2.3%)

The second preferred form of drug abuse is sniffing glue and gasoline which is practiced by 7.1% of the respondents. The pattern of consumption is comparable to the consumers of marijuana. Drugs in other forms are not easily found in Wemindji and have been consumed by very few students. It is however interesting to note that only male students claim having consumed cocaine, crack, intravenous drugs or other drugs. Perhaps male students are more willing to take risks experimenting with harder drugs. It is also possible that some of those students have been dishonest. The researcher cross-checked with the community clinic and got confirmation that, although there is no proof, it is possible that intravenous drugs have been used in the community, even if only occasionally.

Table 4 16

## Frequency of drug use, by gender, age group and sexual activity (%)

Items		m	f	<16	>16	s/a	n/a	all
60 How often do you use the following substance:								
. sniff glue or gas	<b>OFTEN</b>	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	<b>SOMETIMES</b>	4 9	10 0	2 5	11 4	11 6	3 8	7 1
	<b>NEVER</b>	95 1	90 0	97 5	88 6	88 4	96 2	92 9
. marijuana	<b>OFTEN</b>	2 3	0 0	2 5	0 0	2 2	0 0	1 2
	<b>SOMETIMES</b>	18 6	42 5	20 0	39 1	40 0	19 2	30 2
	<b>NEVER</b>	79 1	57 5	77 5	60 9	57 8	80 8	68 6
. cocaine, crack	<b>OFTEN</b>	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	<b>SOMETIMES</b>	4 8	0 0	2 5	2 2	4 5	0 0	2 4
	<b>NEVER</b>	95 2	100 0	97 5	97 8	95 5	100 0	97 6
intravenous drugs	<b>OFTEN</b>	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	<b>SOMETIMES</b>	4 8	0 0	0 0	4 4	4 7	0 0	2 4
	<b>NEVER</b>	95 2	100 0	100 0	95 6	95 3	100 0	97 6
other drugs	<b>OFTEN</b>	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	<b>SOMETIMES</b>	4 9	0 0	2 7	2 3	4 8	0 0	2 5
	<b>NEVER</b>	95 1	100 0	97 3	97 7	95 2	100 0	97 5

## **4.6 RELATIONS BETWEEN KNOWLEDGE, ATTITUDES AND BEHAVIOR**

Now that knowledge, attitudes and behavior of Cree students from Wemindji have been looked at in some detail, it is necessary to determine if knowledge plays a role in changing attitudes and if they both have causal effects on behavior as predicted by the AIDS Risk Reduction Model. Analysis of variance and correlations have been used to find relationships between sets of data. A correlation matrix is presented on Table 4.17 to examine the magnitude of the interrelationships between pairs of variables.

As seen in the beginning of this chapter, the age of the respondents has great influence on knowledge level, attitudes and behavior of the participants. Consequently, when interpreting the following results, one must take into consideration the age factor as well as the variables involved in the analysis.

### **4.6.1 Knowledge, attitudes and behavior**

As expected, age is highly correlated to the knowledge score ( $r=0.324$ ,  $p<0.01$ ), that is, the older the students, the better they were able to answer the knowledge test. When analysis of variance between knowledge score and attitudes were computed, interesting information was revealed. Students with the higher knowledge score were significantly more tolerant towards people infected with AIDS than those who were less knowledgeable. For example, a higher average knowledge score was found for students who believed that people infected with the AIDS virus should attend regular classes ( $F=6.17$ ,  $p<0.05$ ). The most knowledgeable students were also more likely to be willing to stay friends with people having contracted the AIDS virus ( $F=8.80$ ,  $p<0.01$ ) and to disagree with the two following statements: i.e. that AIDS carriers should live away from other people ( $F=7.56$ ,  $p<0.01$ ) and that people with AIDS should lose their jobs ( $F=5.91$ ,  $p<0.05$ ).

Those students having a higher level of knowledge were generally less



Table 4.17

Interrelationships, correlation coefficients and significance level<sup>1</sup>

	age	v49	v50	v51	v103	v104	v113	v121	v122	v123
V49 - Knowledge score	r=	0.324								
	p=	0.002								
V50 - # of classes on sex	r=									
	p=									
V51 - # of classes on AIDS	r=		0.446							
	p=		0.000							
V103 - age first sexual intercourse	r=									
	p=									
V104 - # of sexual partners	r=	0.575	0.373							
	p=	0.000	0.025							
V113 - Freq condom use	r=									
	p=									
V121 - Freq carry condoms	r=									
	p=									
V122 - Alcohol use	r=	0.564	0.457			0.529				
	p=	0.000	0.000			0.001				
V123 - sniff glue or gasoline	r=									
	p=									
V124 - marijuana	r=							0.426	0.289	
	p=							0.000	0.008	

<sup>1</sup> Only the correlations with a level of probability  $p < .05$  were indicated on this table. Other correlations were considered non-significant.

ethnocentric than the students who had less knowledge as they disagreed significantly more often with the following statements: A person who does not have sexual partners outside the community is safe from AIDS ( $F=4.32$ ,  $p<0.05$ ), Cree people cannot get AIDS ( $F=13.10$ ,  $p<0.01$ ) and AIDS is usually found in big cities and it is not likely to come to Wemindji ( $F=7.43$ ,  $p<0.01$ )

No significant difference was found, however in regard to fear of AIDS and perceived vulnerability except for the item number 43 "Having AIDS, this is not a big deal". Significantly, more of the high knowledge score students disagreed with this concept ( $F=5.64$ ,  $p<0.05$ ). Students that knew more about AIDS were more likely to feel that their parents did not know enough about AIDS to inform them ( $F=12.9$ ,  $p<0.01$ ). It is possible that the more they knew, the more they realized the lack of knowledge of their parents on the subject of AIDS. Analysis of variance showed no significant difference in knowledge level in relation to factors such as influence of peers, sexual permissiveness, self efficacy, help-seeking abilities and sexual communication abilities.

While levels of knowledge seem to have influence on certain attitudes, the more knowledgeable students were not significantly different from the others with regards to such factors as condom use, age of first sexual intercourse, number of sexual partners and at-risk sexual behavior. Students who had sexual intercourse knew more about AIDS than the non-sexually active ( $F=5.81$ ,  $p<0.01$ ) and were more likely to have had sexual intercourse under the influence of drugs and alcohol ( $F=8.35$ ,  $p<0.01$ ). This is easily understood as knowledge level, sexual activity and uses of alcohol are more frequent for older students. This confirms our expectations however, that knowledge alone will not guide behavior.

#### **4.6.2 Instruction, attitudes and behavior**

While knowledge could have been acquired from different sources, analysis of variances were also computed to find out if formal instruction through classes or sessions had any effect on attitudes or behavior. The results of the analysis showed that those students who had attended classes on AIDS were not likely to know more about it than those who did not receive instruction but they

differed slightly in their attitudes

Those who had received classes were more likely to disagree with the statement to the effect that people with AIDS should lose their jobs ( $p < 0.05$ ,  $F = 3.98$ ). The students having received instruction on AIDS were also more likely to have dispelled myths and to have perceived the danger of AIDS within the community and for the Cree population as a whole. For example, those who had received instruction were less likely to believe that a person who does not have sexual partners outside the community is safe from AIDS ( $p < 0.05$ ,  $F = 4.15$ ), that Cree people cannot get AIDS ( $p < 0.05$ ,  $F = 4.04$ ), that AIDS was not likely to come to Wemindji ( $p < 0.01$ ,  $F = 8.33$ ) and that one was more likely to get AIDS if he/she had sexual intercourse with someone from the south ( $p < 0.05$ ,  $F = 5.98$ ). AIDS instruction also appeared to improve communication abilities as more of those having attended classes or sessions on AIDS were able to discuss sex with their close friends ( $p < 0.05$ ,  $F = 5.31$ ).

In relation to behavior, however, no significant differences were found between those who had attended classes or sessions on AIDS and those who didn't. Analysis of variances showed the same amount of risk taking behavior for both groups.

#### 4.6.3 Preventive behavior

Further analysis of variance was performed to identify if any of the variables could predict safe sexual behavior. Condom utilization was used as the manifestation of safe sexual behavior.

Among the sexually active respondents age was not a factor influencing condom use but, more males than females had sexual intercourse using condoms ( $p < 0.05$ ,  $F = 5.35$ ). Many more males than females also carried condoms when they went out with their girlfriends/boyfriends ( $p < 0.01$ ,  $F = 7.98$ ). The difference between males and females can be related to the fact that more females are shy to propose condoms to their partners (see Table 4.11). Attitudinal factors such as myths and stereotypes, fear of AIDS, perceived vulnerability, influence of peers, sexual communication ability, feeling of self-efficacy and sexual permissiveness failed in predicting safe sexual behavior in

the form of condom use

Students that had at-risk sexual behaviors such as sexual intercourse with casual partners were not more likely to use condoms than those who abstained from such behavior. The same is true for the students who had sexual intercourse under the influence of drugs and alcohol. Respondents who became sexually active at a younger age and those who had many sexual partners did not use condoms more often than the respondents who had a different sexual history. There is no evidence either that abstinence was deliberately chosen as a mean of protecting oneself against AIDS.

#### **4.6.4 Substance abuse and at-risk sexual behavior**

A larger number of positive correlations were found in relation to alcohol and drug use (see Table 4.17). In fact, it was found that the older the student, the more likely they were to use alcohol. ( $r=0.564$ ,  $p<0.01$ ) Knowledge score and alcohol consumption were also positively correlated ( $r=0.457$ ,  $p<0.01$ ). This relation can probably be attributed to the age of the participants.

Those respondents who are sexually active drink more than those who never had sex ( $F=4.81$ ,  $p<0.05$ ). More than half (51.1%) of the sexually active respondents admitted having had sexual intercourse while using alcohol or drugs. This mixture of mood altering substances and sexuality might provide an explanation for the fact that significantly more of the drinking students have had sexual intercourse with someone they did not know very much ( $F=7.00$ ,  $p<0.01$ ).

Table 4.17 also indicates a significant positive correlation between alcohol consumption and number of sex partners ( $r=0.523$ ,  $p<0.01$ ). Due to the small number of respondents involved in these activities, no analysis of variance was computed to find out relationships between at-risk sexual behavior and substance abuse. However, it was found that use of marijuana and alcohol consumption were highly correlated ( $r=0.426$ ,  $p<0.01$ ). Marijuana users were also more likely to be sniffing glue or gasoline ( $r=0.289$ ,  $p<0.01$ ) than those who do not use drugs.

## **CHAPTER V - CONCLUSIONS AND RECOMMENDATIONS**

The objectives of this study was to describe the knowledge, attitudes and behavior of Cree Secondary school students in relation to AIDS. Following this description, knowledge, attitudes and behavior were compared to determine if any factor could predict safer sexual behavior. A quantitative analysis of the responses to the written questionnaire provided a wealth of information.

The main findings of the survey are summarized in this chapter. A discussion of the results and recommendations for educational interventions and further research complete this chapter.

### **5.1 SUMMARY OF FINDINGS**

The survey on AIDS was administered to Cree Secondary school students attending Maquatua Eeyou school in Wemindji. It was composed of four sections: knowledge of AIDS, sources of information, attitudes and behavior. The data has been presented in the previous chapter in details. Analysis was conducted to find statistically significant relations between the different components of the survey.

#### **A. KNOWLEDGE**

Knowledge of AIDS, in general, is fairly satisfactory in regard to the nature of the disease, the modes of transmission, and the means of prevention. Older adolescents and the respondents who are sexually active have significantly more knowledge than the younger students and those who are not sexually active. Although most of the students are interested in receiving more instruction about AIDS, there is no evidence that the formal instruction that has already been provided has increased their knowledge on the subject.

#### **B. SOURCES OF INFORMATION**

Information on sexuality and AIDS is obtained from different sources. While television, printed material, friends, school and clinic are important sources of

information on sexuality for most students, female respondents receive more information about sexuality from their mothers than the male respondents.

Sources of information on AIDS differ from sources of information on sexuality. The clinic, the school and the television are of great importance for most students although they rank differently for each of the subgroups, i.e. male/female, early adolescents/late adolescents. Students receive information on AIDS mostly from organized institutions rather than from significant others such as friends and mothers.

Preferred sources of information on sexuality remain the television for many students except for females and older students who would prefer to receive this information from the clinic. Friends, school and printed materials are also desirable sources of information on sexuality; female respondents identified their mothers as their second preferred source.

Students seem to favor more formal sources of information on AIDS as they chose clinic and school as their preferred source of information on AIDS. Fathers, other family members, radio and church are perceived as of little importance as communicators of information on sexuality or AIDS.

### **C. ATTITUDES**

Attitudes such as myths and stereotypical thinking, fear of AIDS, perceived personal vulnerability, influence of peers, attitudes towards condoms, sexual communication abilities, feeling of self-efficacy, sexual permissiveness and attitudes towards people with AIDS have been assessed in order to verify if they could be predictors of safer sexual practices.

Some lack of tolerance is shown towards people having the AIDS virus. This is especially true for boys, younger students and those respondents who are not sexually active. Myths and stereotypes are still prevalent in the mind of at least one Cree adolescent out of four. These students feel that AIDS is a disease that can only exist outside the community and that cleanliness is an important factor in protecting oneself from AIDS. Males, younger adolescents and the non-sexually active respondents are more likely to believe in these

myths and stereotypes than females, older students and sexually active respondents.

Although at least two thirds of the respondents expressed some fear or concern in regard to the AIDS virus, a similar proportion felt capable of protecting themselves against it. At least half of the students showed a strong response to peer influence as many of them admitted friends encourage them to drink and do things that are wrong.

Sexually active students were asked why they do not always use condoms. Many students responded that they felt condoms are difficult and embarrassing to obtain, others feel that their partners do not like condoms. Several boys complained that condoms reduced pleasure while many of the female respondents are too shy to propose condoms to their partners.

Students are fairly permissive in regard to sexuality and two thirds of them felt comfortable with individuals of the opposite sex. Two thirds are able to discuss sexuality with their close friends but more than a quarter would be too embarrassed to seek help from the doctor if they suspected having AIDS

#### **D. BEHAVIOR**

The average age for commencing sexual activity among Cree students is 14 years and 80% of the older adolescents (16 years and above) have had sexual intercourse at least once. The average student reports having had more than one sexual partner and boys in general have more partners than girls. Homosexuality is not frequent but almost half of the respondents stated having had sexual intercourse with someone who is not their regular mate or someone they do not know very much. Although the respondents are quite active sexually, less than one fifth always use condoms when having sexual intercourse.

#### **E. ALCOHOL USE AND SUBSTANCE ABUSE**

Consumption of alcohol and marijuana is more frequent among girls but boys tend to consume substances in larger quantities. Sexually active respondents are more likely to use alcohol and drugs than those who are not active. Sexual

activity while under the influence of drugs or alcohol occurs regularly

## **F. RELATIONSHIPS**

Correlations and analysis of variances have been used to find relationships between knowledge attitudes and behavior. It was found that older students are more knowledgeable about AIDS than the younger ones. Students with more knowledge also show more tolerance towards people infected with the AIDS virus and are able to foresee the likelihood of AIDS contamination within a Cree community. The level of knowledge, however, does not increase fear of AIDS nor does it change perception of personal vulnerability to the disease or have any effect on other barriers to safe sexual behaviors. Although the more knowledgeable students are also more sexually active, knowledge has very little effect on sexual behavior.

No attitudes have been found to predict condom use and students reporting high risk sexual behavior do not use condoms more often than the students who are more conservative. Substance abuse, however, is highly correlated with most at-risk sexual behavior.

## **5.2 DISCUSSION**

The results of this study did not produce startlingly new data as it confirmed much of what was described in the literature review. Interesting details however made this study worthwhile. Much difference was found between subgroups i.e. male/female early adolescents/late adolescents sexually active and sexually non-active. As mentioned earlier many similarities were found between students who were female older in age and sexually active as their attitudes were often significantly different from the male younger students and non sexually active. Females older students and sexually active adolescents were in general more realistic and more tolerant in their attitudes than the other subgroups. However, they were also more likely to drink and consume drugs.

None of the factors in the theoretical framework were able to predict safer



sexual behavior when analyzed individually. It is however likely that, if all the factors were present, incidence of at-risk sexual behavior would be decreased greatly. For example, for the AIDS Risk Reduction Model, knowledge, rejection of stereotypes and myths, perceived personal susceptibility, capacity to resist peer pressure, feeling of self-efficacy, sexual communication ability, help seeking ability and perceived benefits outweighing the cost of safe sexual practices must be simultaneously present in order to bring about a real change in behavior.

The findings of this study were compared with the results of similar research conducted in Quebec and Canada in order to determine if there were any differences in knowledge, attitudes and behavior between the Cree adolescents and the Quebec and Canadian youth as a whole. Since the sample characteristics and the instruments used in the different research were not identical, only the general trends have been compared.

The Cree students taking part in this study have shown a fair amount of knowledge of AIDS although identical items have a lower percentage of correct answers compared to the results of Santé Québec's study (1992). This difference could be attributed to the higher age of the sample (15-29 years for Quebec compared to 12-21 years for the Cree) as it was shown in both studies that older respondents know considerably more than younger ones. This may be attributed to having been exposed more frequently to AIDS information and to the acquisition of a certain level of maturity allowing the older adolescents to understand better the full impact of this life and death issue. In addition, Santé Québec (1992) reports a higher number of errors among the allophone youth compared to those whose mother tongue is French or English. Since the questionnaire used in the present study was administered in the students' second language, some errors might have been the result of lack of understanding of the questions. Language might also have been a barrier to the acquisition of AIDS knowledge. In spite of the generally positive results of the knowledge test, educational efforts from all sources should be pursued as a certain number of facts are still unknown to a large number of Cree students, the fact that at present AIDS can not be cured, for example.

The level of knowledge, according to the students, can be attributed not only to the efforts of the health services and the school which provided classes or sessions on AIDS, but also to the media, especially television and printed material, which communicate AIDS information to the general public. Quebec youth obtained their information on AIDS from the same sources but their selections were ranked differently, for example, school ranked before television and health services for Quebec youth (Santé Québec, 1992). This leads us to believe that perhaps Quebec adolescents receive more sex education in the schools than the students from Wemindji. Preferred sources of information for the Cree as well as for the Quebec youth were identical, i.e. the health services, the school, television and printed material.

This acquired knowledge was shown to have a positive impact on the Cree students' tolerance towards people infected by the AIDS virus. In fact, Cree students showed a slightly higher level of tolerance towards people infected with the AIDS virus than the average Canadian youth (King, M. et al.). One may wonder, however, if the level of tolerance reported by the Cree students is a sign that they are convinced of the lack of risk through casual contact or if it results from not having to deal with the problem at the present time. Would the level of tolerance change if there were a person with AIDS in the school or in the village? Other attitudinal factors can not be compared with the Quebec and Canadian youth because similar items were not used in these studies.

Cree adolescents generally become sexually active at least two years younger (14.3 years) than the Quebec youth (16.6 years). This average is however decreasing as among 15-17 year olds the average age of the onset of sexual intercourse was 15 years (Santé Québec, 1992). This difference might be attributed to more permissive social norms in the Cree communities. In fact, the Cree traditionally marry at a very young age and teen pregnancies are not frowned upon as in other societies. It is also possible that the lack of organized activities for young people leads them to choose sexual activity as a form of entertainment.

It is, however, interesting to note that in spite of the early onset of sexual activity, the Cree students have less sexual partners than the average Quebec

adolescents Cree boys taking part in the study had an average of 3.6 partners and Cree girls had 2.5 partners. Quebec male adolescents aged 15-19 years had from 3.7 to 5.5 partners and females from 2.8 to 3.2 partners (Santé Québec 1992). Factors such as homosexual relations and incidence of sexually transmitted diseases can not be easily compared due to the small number of respondents in the Cree study having these characteristics.

As we have seen in this study, alcohol is the most significant predictor of at risk sexual behavior for Cree adolescents. Alcohol use is associated with a high number of sexual partners, casual sex, and sexual intercourse under the influence of drugs or alcohol. These findings are identical to the conclusions of Santé Québec (1992B). According to Santé Québec (1992B), alcohol consumption shortly precedes sexual experimentation within the adolescents' search for affirmation of their autonomy but it can not necessarily be held responsible for the onset of sexual activity. Drinking and having sex seem to be perceived by most young people as a form of initiation rite to adulthood.

The data collected in this study do not permit us to compare the quantities of alcohol consumed by Cree students and Quebec youth. However, statistics indicate that more Cree girls drink than Cree boys (81.6% for girls compared to 61.4% for boys), see Table 4.15. This pattern is contrary to the Santé Québec results that show that among the 15-19 year olds more boys (79%) drink than girls (74%). The same difference is also shown in reference to drug consumption as more Cree girls consume marijuana and sniff glue and gasoline compared to Cree boys while the opposite is true for Quebec youth (Santé Québec 1992 B). These results might partly be a reflection of girls going out with older boys and therefore being exposed to alcohol and drugs at a younger age but further research would be needed to explain the unexpected pattern more clearly.

### 5.3 RECOMMENDATIONS FOR EDUCATIONAL INTERVENTION

The present research would have little significance if it did not lead to recommendations for educational applications. The following suggestions are perceived as corresponding to the needs expressed by the Cree students surveyed.

It is important to decide who should be responsible for transmitting AIDS information to the Cree adolescents. As this study points out, all students do not agree on their main and preferred sources of information about AIDS. However, there seems to be a general trust in the clinic and the school. While the clinic and its staff (nurses, doctors and UHR) can supply accurate medical information, the school provides a captive audience of adolescents. Although a majority of students expressed a desire to learn more about AIDS, the present research shows no evidence that the classes or sessions on AIDS that have been organized in the past have had much effect on the students' knowledge and behavior. It had, however, a positive impact on some attitudes.

To enhance the effectiveness of an AIDS prevention program, the teachers and the clinic staff providing instruction on AIDS would benefit greatly from specialized training. They should be carefully selected for their abilities to create a climate of trust and respect within a group of young people.

In addition, the school should make use of peer tutoring techniques as the present research demonstrates that young people learn much about sexuality through their friends and that peer pressure is fairly strong. Friends are believed to have considerable influence in shaping the behavior of adolescents (Frapplier 1988, King et al. 1988). This influence of peers should be channelled towards positive action rather than towards drinking alcohol or doing things that are injurious.

Since a number of female students would like to receive information about sexuality from their mothers, they might also appreciate instruction about AIDS if they felt that their mothers were knowledgeable enough about the subject to provide accurate information. This would involve training the parents as many

of the students felt that their parents did not know enough about the subject of AIDS. Parental involvement in the educational process can bring about much change in attitudes according to Fortin (1988) and Frappier (1988). This approach could have further benefits: students could get reinforcement at home of the message learned in school, it would improve the parents' understanding of the educational process taking place in the school and it might even have some effect on the knowledge, attitudes and behavior of some of the parents themselves.

Since printed material is of interest to many students, efforts must be made to develop brochures that are culturally appropriate, entertaining, informative and of a reading level appropriate for the students. Time could be reserved on local television and radio to broadcast relevant documentaries on AIDS. Interesting and informative documentaries such as "Let's Talk about AIDS" (Degrassi characters interviewing youth across Canada) presented by CBC in 1992 could be re-broadcast on local television with the permission of the producers. Finally, a community effort for AIDS prevention will be more effective than the intervention of a few individuals.

A good AIDS education program should present several risk-reducing alternatives beside condom use: e.g. delaying the onset of sexual intercourse, maintaining mutually monogamous relationships or practicing noncoital sex. While it can not be expected that all students will avoid sexual intercourse, abstinence can be presented as a natural and viable method of prevention. Students can be taught how to resist pressures to become sexually active against their wills and those who do decide to engage in sexual intercourse should do so without shame in the context of a healthy sexual life. Unfortunately, undesirable events such as rape, sexual abuse or incest exist in every society, but it is beyond the scope of this study to deal with those controversial issues.

Students should also be given communication skills necessary to negotiate safer sexual practices with reluctant partners. Assertiveness training is needed for girls as one sexually active female out of three said they did not use condoms because they were too shy to propose it to their partner. Boys also

need assertiveness training as they have more difficulty in resisting peer influence when it comes to drinking

Communication skills are also needed as many students are too shy to seek help or to communicate their desires to their sexual partners. These problems often result from lack of self-confidence and poor self-esteem. A program developed in order to build students' self-esteem would increase the frequency of safer sexual behavior but would also have a positive impact on many other aspects of their lives. For example, students who feel better about themselves may have less tendencies to drink alcohol and consume drugs. A participatory approach including role playing might help the students develop more assertiveness and gain self-confidence.

Students should also be permitted to handle condoms to develop a sense of self-efficacy even before becoming sexually active. As seen in this study, among those who are sexually active, 14.6% of the males and 12.3% of all the respondents declared they did not know how to use condoms. Such adolescents will not dare suggesting condoms to their partners by fear of being ridiculed in displaying their incompetence. In addition, positive attitudes towards condom use and safe sex practices should be encouraged. Perceived social norms should be changed and condom use should become the "in" thing to do.

The clinic staff should reassure students of the confidentiality and the non-judgemental nature of medical intervention to improve the students' health seeking behavior. Young people should be made aware of HIV testing and it should be made available if they desire. Female adolescents seeking help for contraceptive purposes should be encouraged to use condoms rather than or along with birth control pills so as to protect themselves from STD and AIDS as well as unwanted pregnancies.

Condoms should continue to be easily available in the clinic and distribution machines should be installed in the school or other public places such as the arcade where they could easily and discretely be accessed.

Students should be encouraged to be more compassionate towards people with the AIDS virus and myths and stereotypes should be dispelled. Interventions should address characteristics of adolescents such as the feeling of invulnerability, the tendency to take risks, the need for experimentation and the lack of focus on future consequences.

The emphasis of an AIDS reduction program however, should be on abstinence from alcohol and other drugs in conjunction with sexual activity. Girls should be the object of special attention in regard to alcohol and drug prevention. As the results of this research demonstrates, the use of alcohol is the best predictor of at-risk sexual behavior. Consequently, AIDS prevention should not only be part of a sex education or health education program, it must be included in any alcohol and drug abuse prevention interventions among the adolescent population.

Presently, students under age 16 possess much less knowledge than older students. Since some of them have their first sexual intercourse in their early teen years, this leads us to believe that many have had unprotected sexual intercourse before being fully aware of the risk involved in this practice. Educators should not be afraid to start AIDS prevention early because students must know the risk of AIDS before becoming sexually active. Grade 6 level (age 11-12) or Secondary 1 (age 12-13) is not too early to inform them of the possible consequences of their actions.

More activities for youth should be organized outside of school hours. This might contribute to delaying the onset of sexual activity among the adolescent population. AIDS prevention sessions adapted to Cree values and needs should be compulsory each year for all Secondary School students as it will make the problem appear more real. These sessions would be more effective if presented in the period that precedes sports tournaments. Some programs should also be designed to reach adolescents who are not attending school. Effective AIDS risk reduction programs will not only reduce the likelihood of AIDS contamination within the village, it is also likely to reduce the incidence of sexually transmitted diseases and unwanted teen pregnancies.

## **5.4 SUGGESTIONS FOR FURTHER RESEARCH**

The present study was limited to a fairly small sample and could be considered as a preliminary study. In the future it would be useful to conduct a similar study in other Cree communities and to include school dropouts and other young people who are not attending schools. This would give a better picture of the extent of risk-taking behavior among the Cree youth population. The results of these studies could be used to persuade the Cree authorities of the importance of educational and social interventions. Other native groups in Quebec and Canada might also benefit from such research.

Studies on other aspects of adolescents' sexuality such as teen pregnancies, pattern of dating and courtship, sexual abuse, etc. could be of great interest for educators working with Cree adolescents.

Evaluation of the programs already in use is necessary as to find the reasons for their actual lack of effectiveness. A culturally adapted educational program for intervention among the youth population could be designed and implemented. Following the implementation an evaluation of the impact of such a program on behavioral modification is imperative.

## **5.5 CONCLUDING REMARKS**

The present study provided much information on knowledge, attitudes and behavior of Cree Secondary school students in relation to AIDS. It confirmed the high incidence of at-risk sexual behavior revealed alcohol use as the most significant predictor of at-risk sexual behavior. Although Cree adolescents are slightly different from other Canadian and Quebec adolescents, their risk taking behavior is mainly the result of adolescent characteristics rather than Cree cultural differences. Future educational intervention should reflect these findings.



## REFERENCES

- Boyer, C B, Kegeles, SM (1991) AIDS risk and prevention among adolescents Social Science and Medecine, 33 (1), 11-23
- Brown, L K Nassau, J H, Barone V J (1990) Differences in AIDS knowledge and attitudes by grade level Journal of School Health, 60 (6), 270-275
- Carmel, S (1990-91) The health belief model in the research of AIDS related preventive behavior Public Health Reviews 18 73-85
- Cornejo, H (1990) Education à la Sexualité Les Maladies Transmises Sexuellement et la Contraception 1989-1990 Cree Board of Health and Social Services of James Bay
- Charbonneau, L , Frappier, J Y, Gravel, S , Rocheleau, L , Sylvestre, R (1987) Vie Sexuelle à l'Adolescence, une Réalité Silencieuse? DSC Sainte-Justine, Montreal
- Charbonneau, L , Forget, G , Frappier JY, Gaudreault, A , Guilbert, E , Marquis, N (1989) Adolescence et Fertilité une Responsabilité Personnelle et Sociale, Gouvernement du Québec, Ministère de la Santé et des Services Sociaux
- Chilman, C (1983) The development of adolescent sexuality Journal of Research and Development in Education 16 ,(2), 16-26
- Darou, WG (1989) Obstacles to Effective Experimentation A Study among the James Bay Cree , Unpublished doctoral thesis, McGill University Montreal
- Davis, S M & Harris, M B (1982) Sexual knowledge, sexual interests, and sources of sexual information of rural and urban adolescents from three cultures Adolescence, 17, (66), 471-492

- Diver, A C (in Husen, T, & Postlethwaite, T N ) (1985) Adolescence The International Encyclopedia of Education Pergamon Press Ltd , Vol 1
- Fortin, F, Kerouac, S & Taggart, E (1988) Sexualité et contraception à l'adolescence Apprentissage et Socialisation, 11 (1), 15-27
- Frappier J Y (1980) Session de formation en Planification des Naissances, Gouvernement du Quebec, Ministère des Affaires Sociales
- Frappier, J Y (1988) Impacts des sources d'information en sexualité Apprentissage et socialisation, 11 (1), 47-50
- Goldman, RJ and Goldman, J D G (1981) Sources of sex information for Australian English, North American and Swedish children Journal of Psychology, 109(1), 97-108
- Hall, R, Wilder, D, Bodenroeder, P, Hess, M (1990) Assessment of AIDS knowledge, attitudes, behaviors, and risk level of northwestern American Indians American Journal of Public Health, 80 (7), 875-877
- Hingson, R Strunin, L Berlin B M Heeren, T (1990) Beliefs about AIDS, Use of Alcohol and Drugs and Unprotected Sex among Massachusetts Adolescents American Journal of Public Health 80 (3), 295-299
- Howard, M (1983, March) Postponing sexual involvement: a new approach SIECUS Report, 5-8
- Janz N K, Becker, M H (1988) The health belief model A decade later Health Education Quarterly 11 (1), 1-47
- James, C A (1992) Continuity and change a cultural analysis of teenage pregnancy in a Cree community Unpublished thesis, Department of Anthropology, McGill University, Montreal

- Kessler, S (1983) Teens talk about sexuality, sex and television Television and Children, 6 (4) 37-39
- King, A J C, Robertson, A S, & Warren, W K (1985) Summary Report : Canada Health Attitudes and Behaviours Survey Health and Welfare Canada
- King, A J C, Beazley R P, Warren, W K, Hankins, C A, Robertson, A S, & Radford, J L (1988) Etude sur les Jeunes Canadiens Face au SIDA Queen's University at Kingston
- King, A J C, Beazley, R P, Warren, W K, Hankins, C A, Robertson, A S, & Radford, J L (1989) Highlights from Canada youth and AIDS study Journal of School Health 59 (4), 139-145
- King, A J C & Wright, N P (1993) AIDS and Youth An analysis of factors inhibiting and facilitating the design of interventions Queen's University at Kingston
- King, M A, Coles B J & King A J C ( unknown) Canada Youth and AIDS Study, technical report Queen's University in Kingston
- Kirby, D. (1980) The effects of school sex education programs a review of the literature Journal of School Health, 50, 559-562
- Kluge, N (in Husen, T. & Postlethwaite, T N ) (1985) Sex education program The International Encyclopedia of Education Pergamon Press Ltd, Vol 8
- Kroger, F & Weisner P J (1981) STD education challenge for the 80's The Journal of School Health, 51 (4), 242-246
- Massé, R & Duquet F (1988) Evaluation comparative de l'impact d'une pièce de théâtre et d'un diaporama sur les connaissances et les attitudes des jeunes face aux maladies transmises sexuellement Département de Santé Communautaire, Centre Hospitalier de Verdun

- Massé, R, & Duquet, F (1989) Connaissances et attitudes relatives aux MTS chez les étudiants du niveau secondaire de Montréal Canadian Journal of Public Health, 80, 244-248
- Ministère de l'éducation du Québec (1985) Secondary School Curriculum Personal and Social Development Québec, Government of Quebec
- Ministère de l'éducation du Québec (1989) Activity Guide Secondary School: Personal and Social Education - Sex Education Québec Government of Quebec
- Montreal General Hospital, D S C (1987-88) Unpublished statistics on pregnancy and Sexually Transmitted Diseases
- Morel, J (1989) Les Grossesses adolescentes chez les Cris: un problème? Unpublished paper Université de Montréal
- Moseley, P A. (in Mitzel, H E) (1982) Sex Education Encyclopedia of Educational Research, 5th ed., MacMillan Publishing Co, Inc. New York, vol 4
- Pickering, J & James, C (1991) Attitudes and Knowledge of James Bay Cree with respect to the prevention of Sexually transmitted diseases and teenage pregnancies Department of Community Health, Montreal General Hospital
- Reigneau, J J (1990) La sexualité des Cris The Canadian Nurse, 86 (9), 38-42
- Robertson A, Petracek, R Taylor, E Larry, P Wright, N Wilson G Beazley, R P Warren WK & King A J C (1991) Skills for healthy relationships A program about sexuality, AIDS and other STD Queen's University, Kingston, On
- Rogers, PA (1965) Aspirations and Acculturation of Cree Women at Great Whale River Thesis (M A) University of North Carolina

Santé Québec (1992A ) Enquete québécoise sur les facteurs de risque associés au Sida et aux autres MTS la population des 15-29 ans  
Gouvernement du Québec

Santé Québec (1992B) Consommation d'alcool et de drogues chez les jeunes Québécois âgés entre 15 et 29 ans Gouvernement du Québec

Santrock, J W (1988) Children WMC Brown Publisher, Dubuque, Iowa

SAGMAI (1984) Nations autochtones du Quebec Gouvernement du Quebec

Schofield, M (1973) The Sexual Behaviour of Young Adults Penguin Books Ltd , London

Swamy, G M (1982) The role of the native woman in a native society  
Canadian Journal of Native Education, 9 (2), 2-20

Thornburg, H D , (1972) A comparative study of sex information sources  
Journal of School Health, 42(2), 88-91

Thornburg. H D . (1981) Adolescent sources of information on sex Journal of School Health, 51(4). 272-277

Wilkins, J et coll (1985) Médecine de l'Adolescence une Médecine Spécifique C I S E ed (hopital Sainte-Justine) Montreal

Appendix 1

Cree Youth and AIDS Survey

## Cree Youth and AIDS Survey

This is a questionnaire on AIDS. AIDS is a very dangerous disease that is found mainly among young people. Cree youth could get it also. The reason for giving you this questionnaire is to gather information that will be helpful for developing a program that will assist you to prevent AIDS. I believe you can help me do that.

This questionnaire asks you a few questions about private things in your life. Please **don't write your name** on the questionnaire, I don't want to know who you are but, I am interested in what young people think and do in general. Nobody will ever know which questionnaire you filled. If you don't feel comfortable with some questions, you can skip them.

Please read all instructions carefully and answer the questions as honestly as possible. When I am finished my study, I will give you a summary of what I found. It might be interesting for you to know how the other people in your school think.

Thank you very much for helping me.

Sylvie Corbeil  
M.A. Student  
McGill University

# Cree Youth and AIDS Survey

## A. Background information

1. How old are you?   
(for example, if you are 17 years old, write 17 in the boxes)

2. Are you male or female?  
(Please put a check (✓) in the appropriate box)

1. Male	<input type="checkbox"/>
2. Female	<input type="checkbox"/>

3. Are you attending school ?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

4. Are you Cree ?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>



## B. Sources of information

5. Where did you **learn the most** about the following:  
(check (✓) as many answers as necessary)

	<b>Sex</b>	<b>AIDS</b>
Television	<input type="checkbox"/>	<input type="checkbox"/>
Radio	<input type="checkbox"/>	<input type="checkbox"/>
Printed material (Books, magazines, newspapers, pamphlets)	<input type="checkbox"/>	<input type="checkbox"/>
School (teachers)	<input type="checkbox"/>	<input type="checkbox"/>
Friends	<input type="checkbox"/>	<input type="checkbox"/>
Mother	<input type="checkbox"/>	<input type="checkbox"/>
Father	<input type="checkbox"/>	<input type="checkbox"/>
Other family members	<input type="checkbox"/>	<input type="checkbox"/>
Clinic (CHR, nurse, doctor)	<input type="checkbox"/>	<input type="checkbox"/>
Church	<input type="checkbox"/>	<input type="checkbox"/>
Other source (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

---

6. From where or whom would you prefer to learn about the following:  
(check (✓) as many answers as necessary)

	Sex	AIDS
Television	<input type="checkbox"/>	<input type="checkbox"/>
Radio	<input type="checkbox"/>	<input type="checkbox"/>
Printed material (Books, magazines, newspapers, pamphlets)	<input type="checkbox"/>	<input type="checkbox"/>
School (teachers)	<input type="checkbox"/>	<input type="checkbox"/>
Friends	<input type="checkbox"/>	<input type="checkbox"/>
Mother	<input type="checkbox"/>	<input type="checkbox"/>
Father	<input type="checkbox"/>	<input type="checkbox"/>
Other family members	<input type="checkbox"/>	<input type="checkbox"/>
Clinic (CHR, nurse, doctor)	<input type="checkbox"/>	<input type="checkbox"/>
Church	<input type="checkbox"/>	<input type="checkbox"/>
Other source (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

7. Over the past year, about how many class(es) or session(s) have you attended on:

(check (✓) only one per row)

	<b>None</b>	<b>Once</b>	<b>Twice</b>	<b>More</b>
Sex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AIDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Would you like to **learn more** about the following topics:

	<b>Yes</b>	<b>No</b>
Sex	<input type="checkbox"/>	<input type="checkbox"/>
AIDS	<input type="checkbox"/>	<input type="checkbox"/>

### C. KNOWLEDGE

TRUE FALSE DK

9. A person who has AIDS can transmit it to another person:

- . by shaking hands
- . by sharing drug needles
- . by drinking from the same cup
- . by kissing on the cheek
- . by having sex
- . by sitting on the same toilet seat
- . by being bitten by the same mosquito
- . by sneezing or coughing on the other person

10. The AIDS virus can be spread from a female to her unborn child during pregnancy.

11. The AIDS virus may be spread from a female to a male during sexual intercourse.

12. You can tell if a person has AIDS by his or her looks.

13. Once infected with the AIDS virus, a person usually dies within a few weeks.

14. A person can have the AIDS virus for seven or more years without having signs of illness.

15. There are tests to find out if a person has the AIDS virus.

- |  | TRUE                     | FALSE                    | DK                       |
|--|--------------------------|--------------------------|--------------------------|
| 16. AIDS can be cured if treated early.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. When people have sex, using a condom helps protect them from the AIDS virus. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. If a woman is using the birth control pill, she cannot catch AIDS.           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Not having sex is the best protection against AIDS.                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. A condom can be used more than once.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. A person with many sexual partners has more chance to catch the AIDS virus.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. A person needs a medical prescription to buy condoms in Canada.              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Condoms are available at the clinic.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## D. Attitude

- |   | Agree                    | Disagree                 |
|---|--------------------------|--------------------------|
| 24. People who have the AIDS virus should be allowed to attend regular classes.           | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. If one of my friends had contracted the AIDS virus, I would stay friend with him/her. | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. Anyone who gets AIDS deserves it.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. People who have AIDS should be asked to live away from other people.                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. People with AIDS should lose their jobs.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. My friends encourage me to do things I know are wrong.                                | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. It's alright for two people to have sex if they are in love.                          | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. A person who does not have sexual partners outside the community is safe from AIDS.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. My parents do not know enough about AIDS to inform me.                                | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. If I thought I had AIDS, I would be too embarrassed to see the doctor.                | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. I know how to use condoms.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. Cree people cannot get AIDS.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. I am worried about getting AIDS   | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. Only homosexuals and prostitutes get AIDS.  | <input type="checkbox"/> | <input type="checkbox"/> |

- |  | Agree                    | Disagree                 |
|--|--------------------------|--------------------------|
| 38 Getting AIDS, "It couldn't happen to me!"   | <input type="checkbox"/> | <input type="checkbox"/> |
| 39 AIDS is usually found in big cities and it is not likely to come to Wemindji.                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 40. You are more likely to get AIDS if you have sexual intercourse with someone from the south.                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 41. If I had a new sexual partner, I would ask that he/she goes for a test to make sure he/she does not have AIDS. | <input type="checkbox"/> | <input type="checkbox"/> |
| 42. I am afraid that the Cree nation will be destroyed by AIDS.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 43. Having AIDS. "This is not a big deal."   | <input type="checkbox"/> | <input type="checkbox"/> |
| 44. I feel pressure from my friends to drink alcohol.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 45. I can keep myself from getting AIDS.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 46. I talk about sex with my close friends.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 47. What my friends think of me is very important.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 48 I am embarrassed when I am with someone of the opposite sex.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 49. If I keep myself clean, I will not get AIDS.   | <input type="checkbox"/> | <input type="checkbox"/> |

## E. Behavior

50. Have you ever had sexual intercourse ?

Yes  No

(if your answer is **Yes** answer the following question )  
(if your answer is **No** skip to question number 59)

51. How old were you when you first had sexual intercourse?  
(for example, if you were 15 years old, write 15 in the boxes)

52. With approximately how many different people have you  
had sexual intercourse, in your life?  
(for example, if you had 1 partner, write 01 in the boxes)

53. Have you ever had a sexually transmitted disease ?

	YES	NO
chlamydia,	<input type="checkbox"/>	<input type="checkbox"/>
gonorrhea	<input type="checkbox"/>	<input type="checkbox"/>
herpes	<input type="checkbox"/>	<input type="checkbox"/>
don't know the name	<input type="checkbox"/>	<input type="checkbox"/>
other	<input type="checkbox"/>	<input type="checkbox"/>

(Please specify) \_\_\_\_\_

54. Have you ever had sexual intercourse with someone  
of the same sex?

Yes No

 

55. Have you ever had sexual intercourse with someone  
you knew but who was not your boyfriend/girlfriend?



Yes No

56. Have you ever had sexual intercourse with someone you did not know very much?

57. During sexual intercourse together, have you or your sexual partner(s) ever used a condom?  
(check (✓) only one answer)

Always	<input type="checkbox"/>	(skip to question #59)
Often	<input type="checkbox"/>	(answer the following question)
Sometimes	<input type="checkbox"/>	" " "
Never	<input type="checkbox"/>	" " "

58. What are your reasons for not always using condoms:  
(check (✓) as many as you want)

	Yes	No
. difficult or embarrassing to get	<input type="checkbox"/>	<input type="checkbox"/>
. reduce pleasure.	<input type="checkbox"/>	<input type="checkbox"/>
. don't know how to use them	<input type="checkbox"/>	<input type="checkbox"/>
. too expensive	<input type="checkbox"/>	<input type="checkbox"/>
. my partner(s) do not like them	<input type="checkbox"/>	<input type="checkbox"/>
. I am shy to propose it to my partner	<input type="checkbox"/>	<input type="checkbox"/>
. my friends do not use them	<input type="checkbox"/>	<input type="checkbox"/>

59. Do you carry condoms with you when you go out with your boyfriend/girlfriend.  
(check (✓) only one answer)

Always	<input type="checkbox"/>
Often	<input type="checkbox"/>
Sometimes	<input type="checkbox"/>
Never	<input type="checkbox"/>

60. How often do you use alcohol?  
(check (✓) only one answer)

- never use alcohol
- sometimes drink but never get drunk
- sometimes get drunk, but less than once a month
- Often get drunk, more than once a month

61. Please indicate how often you use the following substances:

	<b>Often</b>	<b>Sometimes</b>	<b>Never</b>
<i>Sniff glue or gasoline</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Marijuana (pot, grass, or hash)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Cocaine, crack</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Intravenous drugs</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Other drugs (please specify)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

62. Did you ever have sexual intercourse while using alcohol or drugs?

Yes                       No

You have now finished the questionnaire. Thank you.  
Remember, no one will be able to tell which questionnaire you filled in.