

## INTRODUCTION TO THE CANADIAN YOUTH, SEXUAL HEALTH AND HIV/AIDS STUDY

### A. Overview

Healthy sexual development, which includes the development of intimacy and trust, gender identification and sexual orientation, and positive experiences of sensual and sexual feelings, begins in childhood. Alternately, exposure to harmful attitudes about sexuality and experiences of physical, emotional, and sexual abuse may also occur at this age. Gradually, values about gender roles and power are developed during late childhood. Decisions about sexual activity and reproduction are then made during adolescence and early adulthood. Throughout this time, many behavioural patterns are established that can affect an adolescent's likelihood of developing mature, respectful relationships. As well, behavioural patterns can affect the risk of pregnancy, sexually transmitted infections and HIV/AIDS. External forces, such as images in the mass media and peer relationships, have a significant influence on these patterns and need to be better understood. We believe that the best possible choices occur regarding youth sexual health when a strong foundation has been set through information, education and other supports to enable independent, mature and responsible actions.

Few large-scale studies of adolescent sexual health have been conducted in Canada. In 1988, the Canada Youth and AIDS Study (CYAS) (King et al., 1989) was administered during a time of insecurity and concern over a new epidemic. Since then, some national level evaluations of sexual health education curricula have been undertaken (Council of Ministers of Education, Canada, 2000), and a few provinces have revised health education curricula to include a sexual health component. However, in the past decade there have been no cross-Canada studies focusing explicitly on adolescent sexual health. This report presents the findings of such a study on youth sexual health and sexuality. The Canadian Youth, Sexual Health and HIV/AIDS Study (CYSHHAS) has been coordinated by the Council of Ministers of Education, Canada, in collaboration with the HIV/AIDS Prevention and Community Action Program of Health Canada, which provided the funding for the study. Researchers from four Canadian universities, Queen's, Acadia, Laval and the University of Alberta, conducted the study.



## **B. Concepts and Definitions of Sexual Health**

CYSHHAS addresses “sexual health” and “healthy sexuality”, both of which are relatively new concepts in adolescent research. These terms are used in federal, provincial/territorial and local health promotion initiatives that are designed to support the positive integration of sexuality, and the prevention of health problems related to sexuality, at all stages of life. The World Health Organization's definition of sexual health, which avoids discriminating on the basis of age, marital status, and sexual orientation, was used as a foundation for CYSHHAS and states that sexual health is "the integration of the physical, emotional, intellectual and social aspects of sexual being, in ways that are positively enriching and that enhance personality, communication and love" (Health Canada, 1994).

In keeping with this broad definition, healthy sexuality is not only concerned with the avoidance of disease and unwanted pregnancy. For example, Hendriks (1992) suggests:

“Sexual health is an integral part of overall health, not restricted to the avoidance of STDs and HIV/AIDS. Sexual health contributes to the fulfillment of individual sexuality, enabling a person to share this with consenting others, without jeopardizing the health and well-being of other persons. Sexual health requires the enjoyment of free-choice, expression and responsibility, with particular regard to the prevention of transmission of STDs/HIV. The sexual health of an individual contributes to the well-being and health of the individual involved, his/her sexual partner(s), and the ultimate community as a whole” (p.156) .

Based on the above concepts, CYSHHAS was designed to reflect a holistic view of adolescent sexual health, and expands on traditional studies that have focused primarily on sexual behaviour and its consequences. In contrast, CYSHHAS examines a broad range of potential determinants of sexual health.

A number of researchers have noted the challenges associated with attempts to define sexual health (Health Canada, 1994). Some have argued that practitioners and researchers should avoid using the term “sexual health” because any understanding of sexuality is socially constructed (Schmidt, 1987; Gochros, 1983 & Naus, 1989, 1991: in Health Canada, 1994). Schmidt (1987), for example, doubts that one can formulate a non-ideological definition of sexual health and considers it critical that professionals resist temptation to define what is sexual health because of the risks in propagating sexual norms disguised as medical truths. Consequently, we use the term with full awareness that any definition of sexual health is tentative and should not be improperly applied to promote rigid rules of sexual conduct.

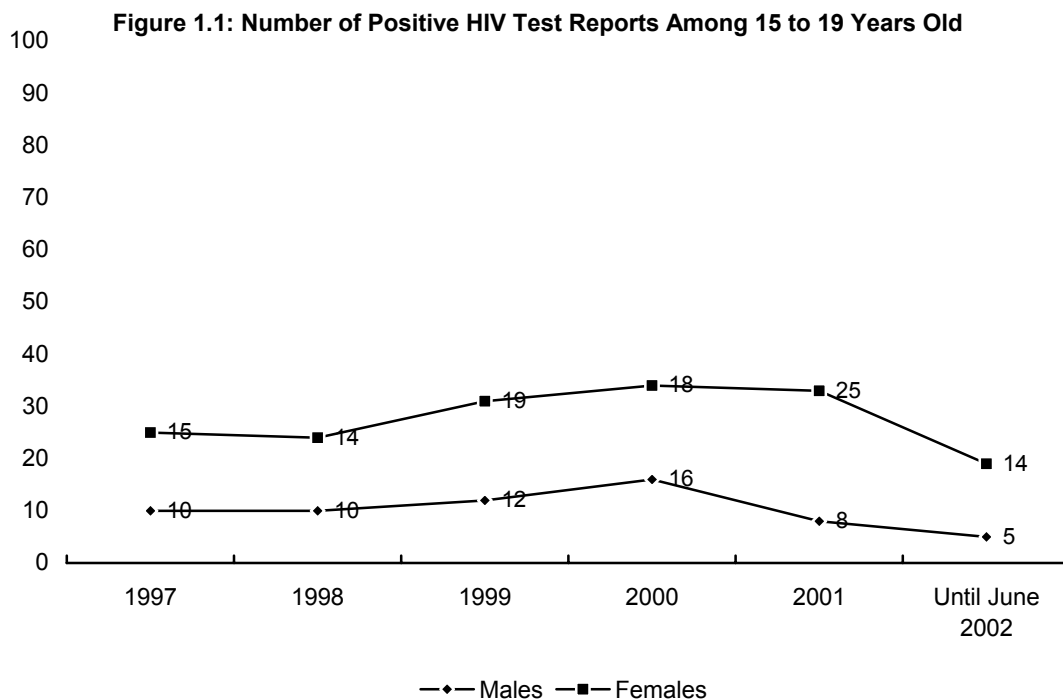
## **C. Rationale for CYSHHAS**

The overall purpose of the study is to increase understanding of the factors that contribute to the sexual health of youth by examining the socio-cultural, socio-environmental and interpersonal determinants of adolescent sexual activity. CYSHHAS focuses particularly on the context of sexual risk taking, especially with regard to HIV/AIDS prevention. Findings are intended to inform the development, refinement, and implementation of sexual health and HIV/AIDS prevention programs for youth, both in schools and in community health settings.

HIV/AIDS is affecting many subgroups of the Canadian population, including youth. Although existing data suggest that HIV prevalence is currently low among youth, sexual risk behaviour and STI data clearly indicate that the potential for HIV spread exists among young Canadians. Youth, in general, are vulnerable to HIV

infection as a result of many factors, including risky sexual behaviour, substance use (including injection drug use), and perceptions that HIV is not a threat to them.

Overall, the rationale for improving policy and programming in youth sexual health is related to both health and economics. The number of HIV positive tests among Canadians between 15 and 19 years old has been relatively low during the past five years (Figure 1.1). Of note, however, is that more females than males have tested positive for HIV across the five years (Health Canada, 2002a). Additionally, the rate of sexually transmitted infections is currently highest among 15 to 24 year olds (Health Canada, 2002b). According to national data, of the 32,869 cases of chlamydia reported among Canadian females in 2000, 40% were among young women between 15 to 19 years old. In this age group, the reported rates of chlamydia increased from 1,063/100,000 cases in 1998 to 1,236/100,000 cases in 2000. Finally, of the 2,368 cases of gonorrhoea reported in the same time period, 41% were among women between the ages of 15 and 19 (Health Canada, 2002).



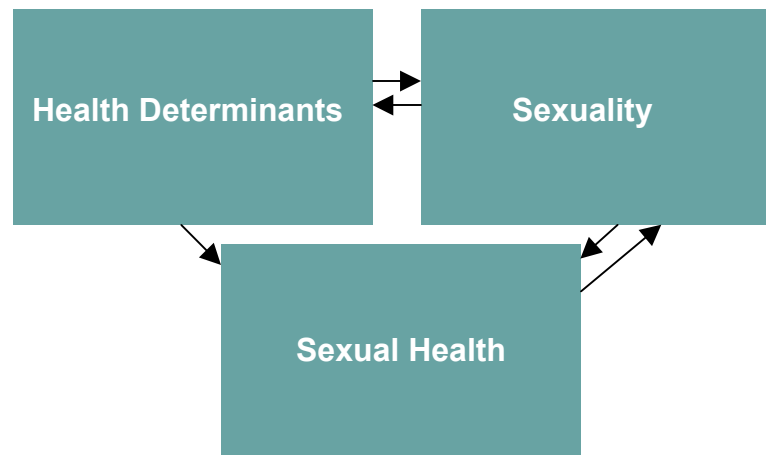
Thus, rates of chlamydia in Canadian adolescent girls have been up to nine times the national rate (Health Canada, 1999). It has been estimated that for every dollar spent on early detection and treatment of chlamydia and gonorrhoea, \$12 could be saved in the associated costs of non-treatment (Institute of Medicine, 1997). Similarly, Canadian rates of teen pregnancy are higher than in many developed countries (Alan Guttmacher Institute, 1994) and vary significantly across the country (Wadhera and Millar, 1997). For every dollar spent on preventing teenage pregnancy, \$10 could be saved on the costs of abortion services and the costs of income maintenance to support adolescent single mothers (Orton and Rosenblatt, 1986). Overall, many studies suggest that teenage motherhood can result in a loss of educational and occupational opportunities and increase the likelihood of diminished socioeconomic status of young women (Wadhera and Strachan, 1991; Wadhera and Millar, 1997). CYSHHAS is intended to increase the knowledge base of factors that contribute to this problem.

#### D. Conceptual Framework

The conceptual framework that underlies CYSHHAS has three major components (Figure 1.2): a) *psycho-social-environmental health determinants*, b) *sexuality variables* (knowledge, attitudes, beliefs, intentions and

behaviours regarding sex), and c) *sexual health*, which is conceptualized as a valued state, with physical, social, psychological, and resource dimensions.

**Figure 1.2: CYSHHAS Conceptual Framework**



Each component in the conceptual framework has a number of sub-categories for which items were developed. Generally, health determinants are aspects of one's social and community environment, as well as one's coping skills and personal health practices, that influence sexuality and sexual health. The overall relationships suggested in the framework imply that health determinants are often precursors, or enablers, of both sexuality and sexual health.

Sexuality itself is conceptualized broadly: knowledge, attitudes about sexuality and sexually related illnesses, dating relationships, sexual experiences, and protective actions against unwanted pregnancy and STIs. Some aspects of sexuality may affect basic health determinants, such as coping skills.

Health determinants and sexuality together influence one's sexual health. Sexual experiences, which are often conceptualized as final end-points in adolescent research, are regarded within this framework as age appropriate events leading to, yet also being influenced by, one's sexual health.

## **E. Research Design**

To understand how health determinants affect Canadian youth sexuality and sexual health at different developmental stages, CYSHHAS included students in Grades 7, 9, and 11 (generally ages 12, 14 and 16) from all provinces and most territories<sup>1</sup>. Selecting these grade/age groupings allowed comparisons with 1989 CYAS findings on key measures of HIV/AIDS knowledge, attitudes toward sexuality, and sexual behaviours among Canadian youth.

## **Survey Instruments**

Most of the items on the questionnaire were previously validated measures employed in surveying the age groups in this study. Closed-end items were selected from existing standardized scales and new items were developed for certain concepts, as appropriate. While there were a few open-ended questions, almost all of the questions could be answered by checking off a response alternative. Two age-specific versions of the

<sup>1</sup> Nunavut did not participate.

instrument were developed. The Grade 7 questionnaire needed to have a limited focus on sexual experiences in order to be acceptable to many school jurisdictions. Consequently, the Grade 7 version included only a single question on sexual experiences.

The Grade 9 and 11 version of the instrument explored sexual behaviours more fully, as well as other risk behaviours such as drug use. The instruments were translated into French by francophone researchers, and then back-translated into English, as a check to ensure that item meanings were preserved in both official languages.

The two survey versions were pilot tested in the provinces of participating universities (Nova Scotia, Quebec, Ontario, Alberta). Regional research coordinators approached selected school jurisdictions, recruited two classes from each of Grades 7, 9, and 11 in each of four regions (Atlantic, Quebec, Ontario, West and North), and pilot tested the instruments in 24 classes (approximately 500 students). The pilot test analysis, which included student focus groups, considered the standardized measures but focused more on the few newly constructed or adapted items. Item relevance to the sample population, student interpretation of meaning, understandability, translation adequacy, and range of responses were considered in the analysis. More formal construct validity testing of items was not conducted due to budget limitations. The pilot analysis resulted in minor revisions to a few items and the exclusion of some items from the final questionnaires. Actual results from the pilot study were examined for response patterns and missing cases.

## Sample and Recruitment

A systematic, stratified sampling method utilized a single stage cluster design that selected classrooms in identified schools. This method was identical to that used in the 1989 CYAS. Stratification variables were: a) Public/Roman Catholic designation, b) language of instruction (particularly in Quebec and New Brunswick), c) urbanicity, or size of city, d) geographic location, and e) school size. To begin, sample lists of schools were created for each province and participating territories using available information. In some provinces, the stratification criteria were applied in an absolute manner by creating multiple sample lists and breaking up the provincial sample proportionally across the lists according to actual number of students in the various strata. Key characteristics varied from province to province according to the organization of school jurisdictions. Examples of this application were the use of separate Roman Catholic and Public school lists in Alberta, Saskatchewan, and Ontario, and separate French and English school lists in Quebec and New Brunswick. In other instances, the criteria were applied in the above manner to order the schools on the lists. Schools from the same school jurisdiction were placed together on the list. The priority given to the stratification variables for placement on the list was the order in which they are listed above. The exception to this rule was that the French/English criterion was applied second when all schools across whole jurisdictions were either French or English. The French/English criterion was applied fourth (just before school size) when there were both French and English schools in the same jurisdiction.

Schools on the sample lists were assigned a range of numbers equivalent to the number of classes in the target grade in the school. A school with one class was given one number in the list and a school with three classes was given three numbers, thereby ensuring that each class was equally likely to be selected for inclusion in the sample. The final selection of classes was made by randomly selecting one class per grade per school. The samples in Prince Edward Island, the Yukon and North-West Territories were lower due to their smaller student populations. The samples in these territories were the entire student populations at the target grade levels (1700-2000 students in the three grades combined).

The Council of Ministers of Education, Canada, was instrumental in obtaining ministerial level approval for the study in all provinces and territories. In recruiting the target sample, however, gaining consent to participate in the study from the designated school jurisdiction, or school board, proved to be the crucial element. Regional

research coordinators from each university took responsibility for maintaining liaison with provincial education authorities, obtaining consent at the school jurisdiction level, submitting the appropriate research applications, and following up requests until consent was received or denied. Difficulties in recruitment were frequently encountered in obtaining school board consent due to teacher labour disputes, competition from other school-based surveys and unfavourable media responses to the study's content in some regions. In many cases, there were not ideal substitute school jurisdictions when refusals occurred, especially refusals from large school boards. Individual school level consent was much easier to arrange. Substitutes for refusals at the school level were usually possible and could be obtained within a few weeks of the refusal. Substitutes were not made for student and parent refusals (since this would necessitate approaching an alternate class), but rather were compensated for by employing conservative return rate projections and over-sampling.

Minority concentration and socioeconomic status of the population base were considered when selecting substitutes for school refusals, but not when ordering the sampling list. One of the steps in obtaining a suitable substitute was to contact an official at the school jurisdiction level and confirm that permission was given to approach the substitute school. At this time, the suitability of the substitute school concerning the make-up of the student population (minority concentration, SES of population base, etc.) was confirmed and alternates were asked for if the match was not satisfactory. Neither demographic (e.g., ethnicity) nor student (e.g., special needs) characteristics were able to be considered for over-sampling purposes.

The final CYSHHAS surveys were administered to whole school classes by their teachers during one 40-minute session in a classroom setting. Due to study budget limitations, contact with teachers was usually done only by letter. Teachers were asked to closely follow a specific set of instructions regarding survey administration. Active parental/guardian consent was obtained for all study participants<sup>2</sup>. The students were guaranteed anonymity and sealed their surveys in individual envelopes for return to the researchers.

## Sample Size

The initial study goal was to achieve individual provincial and territorial sample sizes adequate to achieve confidence intervals of + or – 4% on most items. A sample size of 1150 students per grade per province, using the class unit as the sampling cluster, was required for this precision. However, realities in gaining consent from school jurisdictions prevented the recruitment of samples of the desired size for all provinces and territories (Tables 1.1 and 1.2). The entire study sample, after refusals, was 11,074 students (3,536 Grade 7, 3,841 Grade 9, and 3,697 Grade 11)<sup>3</sup>. As such the CYSHHAS sample can be considered to be a very large sample of Canadian students, while not being completely representative of Canadian youth in all jurisdictions. The national weighted sample includes proportional weighting of provincial samples, other than British Columbia and Alberta<sup>4</sup>. Consequently, the sample is not sufficient for provincial and territorial level analyses, as was possible with the 1989 CYAS. Nonetheless, the achieved sample size results in confidence intervals of + or - 4 % or less on most items (factoring in the design effect error related to the cluster sampling effect) at a 95% level of confidence for each of the grades. When comparing proportions throughout the report, significant differences employ 95% confidence intervals. These parameters are identical to the CYAS. The overall consent rate at the student level was 67.7%; 8.9% of students were absent, 5.2% of students refused, and 18.2% failed to return the parent consent form or the parents denied participation. Absenteeism was in many cases due to student involvement in other school activities, such as field trips, rather than illness or truancy. Failure to return parent consent forms had a much greater effect on return rates than actual parent refusal. Due to

<sup>2</sup> The ethics consent process in 1989 did not require active consent. Youth were excluded in that study only if parents returned a form declining participation.

<sup>3</sup> The CYAS sample size was 29,402 (9,925 Grade 7, 9,860 Grade 9, and 9,617 Grade 11).

<sup>4</sup> The small BC and Alberta samples are simply added to the file with a weight of one.



restrictions on teachers' available time, they were not asked to provide additional information about non-responders.

The 2002 CYSHHAS sample, though imperfect in having exact regional representation, is quite comparable to the 1989 CYAS data set. The sampling methodologies employed in the two studies were similar in that both used the class cluster and considered the same school and community characteristics for representation. Both samples are large enough in size to yield small confidence intervals and represent a range of geographic and demographic characteristics of Canadians in Grades 7, 9 and 11. However, while the CYAS data are nationally representative, the CYSHHAS data are not. As such, caution should be used in claiming the latter can be used for reporting national level statistics. Nonetheless, comparison of approximate differences of + or – 4% between the two studies is valid. Similarly, interrelationships between CYSHHAS variables can be reported with confidence.

**Table 1.1: Sample Size**

Province/Territory	Grade 7	Grade 9	Grade 11
Alberta	9	52	51
British Columbia	50	82	84
Manitoba	231	199	194
Newfoundland	746	602	595
New Brunswick	271	244	358
Northwest Territories	22	0	0
Nova Scotia	498	512	615
Ontario	953	1,156	1,107
Prince Edward Island	173	221	113
Quebec	308	482	270
Saskatchewan	239	265	286
Yukon Territory	87	26	24
<b>Total</b>	<b>3,587</b>	<b>3,841</b>	<b>3,697</b>

**Table 1.2: Distribution of Students in Each Grade by Gender**

Gender	Grade 7		Grade 9		Grade 11	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Male	1691	47.3	1786	46.6	1694	45.9
Female	1885	52.7	2050	53.4	2000	54.1

## F. The 2002 CYSHHAS Report

Chapter 2 of the report presents survey findings related to determinants of youth sexual health. Chapter 3 includes results related to youth sexuality and sexual health. Chapter 4 presents a summary of findings, conclusions of the study, and implications for policy and programming.

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