Canadian Youth, Sexual Health and HIV/AIDS Study Factors influencing knowledge, attitudes and behaviours



Council of Ministers of Education, Canada

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This report presents the findings of a study that was coordinated by the Council of Ministers of Education, Canada, and funded by the Canadian Strategy on HIV/ AIDS of Health Canada.



Canadian La Stratégie Strategy on canadienne HIV/AIDS sur le VIH/sida

The views expressed herein do not necessarily represent the official policy of Health Canada, the Council of Ministers of Education, Canada, or any other agency/institution participating in this research.

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ISBN 0-88987-149-3 Printed on Recycled Paper

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Acknowlegements

This report presents the findings of a study that was coordinated by the Council of Ministers of Education, Canada (CMEC), and funded by the Canadian Strategy on HIV/AIDS of Health Canada.

This study was led by four researchers who were responsible for conceptualizing and planning the study, developing the questionnaires, recruiting schools, conducting the survey, analyzing the results, and preparing this report in consultation with staff at Health Canada and a coordinator engaged by CMEC.

Provincial/territorial health and education ministry officials were consulted about the purpose of the study.

An Advisory Committee that included youth, parents, educators, and community-based HIV/AIDS workers was consulted during the development of the survey and the implementation of the results.

The Social Program Evaluation Group at Queen's University was responsible for data management and analysis. Numerous students at Queen's University assisted with data entry.

Literature reviews were commissioned in preparation of the study and in analyzing the findings.

Staff and a project manager working for CMEC were responsible for the administration and financial aspects of the study.

CMEC, Health Canada, and all members of the project team are especially grateful to the youth, parents, teachers, and school principals who agreed to participate in the study.

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Executive Summary

Since the publication of the Canada Youth and AIDS Study (CYAS) in 1989, there have been no national studies which focus specifically on the sexual health of adolescents. The Canadian Youth, Sexual Health and HIV/AIDS Study (CYSHHAS), coordinated by the Council of Ministers of Education, Canada, and funded by Health Canada under the Canadian Strategy on HIV/AIDS, attempts to occupy that void by providing a contemporary picture of the sexual behaviour of adolescents. Specifically, the study was undertaken to increase our understanding of the factors that contribute to the sexual health of Canadian youth. This was done by exploring the socio-cultural, socio-environmental, and interpersonal determinants of adolescent sexual behaviour. The study was designed and carried out by researchers at four Canadian universities: Acadia, Alberta, Laval, and Queen's.

The study utilizes two relatively new concepts originating with the World Health Organization: *sexual health* and *healthy sexuality*. These are intended to invoke a holistic image of sexual being, one which integrates the emotional, physical, cognitive, and social aspects of sexuality. Attaining sexual health implies much more than simply avoiding diseases and unintended pregnancies. Sexuality itself is broadly conceptualized as knowledge and attitudes about sexuality and sexually-related illnesses, romantic relationships, sexual experiences, and avoidance behaviour regarding unintended pregnancies and STIs.

The conceptual framework that serves as the basis for the CYSHHAS has three primary components: psycho-social-environmental determinants, sexuality variables, and sexual health. The idea of a *determinant* of sexual health focuses on those socio-demographic variables which have been linked to the sexual behaviour and sexual health of adolescents. These include parental income, occupation, educational achievement, religiosity, gender, and disability. Beyond this, the school itself serves as an environmental variable. Also included are personal characteristics, such as coping skills and individual health practices, as well as family dynamics associated with communication, modeling, and trust. Peer relationships have also been linked with adolescent sexual health, as has the presence and awareness of health and education services.

To understand how these determinants influence adolescent sexuality and sexual health at different developmental stages, the study included students in Grades 7, 9, and 11 (approximately ages 12, 14, and 16) from all provinces and territories, with the exception of Nunavut. Selecting these groups allowed study comparisons with the 1989 CYAS findings on the primary measures of HIV/AIDS knowledge, attitudes towards sexuality, and sexual behaviour. Two questionnaires were developed which incorporated an array of closed-end items from selected existing scales and new items for certain concepts. While there were a few open-ended questions, a large majority of the questions could be answered by



checking a response alternative.

The Grade 7 questionnaire was designed to have a limited focus on sexual experiences in order to make it acceptable to many school jurisdictions. Students in Grades 9 and 11 completed identical questionnaires, which more fully explored sexual behaviour and other risk areas such as drug use. The research instruments were translated into French by francophone researchers, then back-translated into English to ensure that item meanings were preserved in both official languages. The surveys were pilot-tested in Ontario, Nova Scotia, Quebec, and Alberta. In each of these provinces, regional coordinators selected two classes each in Grades 7, 9, and 11 in one school jurisdiction, for a total of twenty-four pilot test classes.

Classrooms were identified in selected schools by a systematic, stratified sampling method which utilized a single stage cluster design. The stratification variables were public/Roman Catholic designation, language of instruction, size of community, geographic location, and school size. The final survey instruments were administered to whole classes by their teachers during class. In every case, active parent/guardian consent was obtained. Teachers were provided with detailed administration instructions, and completed questionnaires were sealed in envelopes by the students to ensure anonymity.

The original goal of the CYSHHAS study was to garner individual province and territory sample sizes adequate to achieve representation of Canadian school youth. To do this, a sample size of 1150 students per grade per province was required, which would have resulted in 33,000+ respondents. Unfortunately, the study was unable to achieve its sampling goal in all provinces due to difficulties in obtaining school jurisdiction and school consent. The final sample was 3,536 students in Grade 7, 3,841 in Grade 9, and 3,697 in Grade 11, for a total of 11,074 students. This large sample of Canadian youth is sufficient to examine inter-relationships and achieves confidence intervals of + or -4% on most items.

In terms of adolescent sexual health, the findings of the study are mixed. While it is not the purpose of an executive summary to explore outcomes in detail, a few noteworthy findings are identified below. Readers are referred to chapters 3 and 4 of the National Report for a more delineated explication and discussion of the study outcomes.

In terms of positive adolescent sexual health, some of the findings are noteworthy. For example, most students report relatively rare use of harmful addictive drugs, a "happy home life," and indicate that the school serves as an important source of sexual and HIV/AIDS information, especially for Grade 9 students. Students were asked to respond to knowledge statements (eight for Grade 7, and eighteen for Grades 9 and 11). In general, students' sexual health knowledge increases with grade, such that by Grade 11 a large majority (87%) of students are able to answer eight or more of the eighteen questions correctly. In terms of sexual behaviour, the proportion of students engaging in sexual activities is similar to those reported by the 1989 CYAS. Of the students surveyed in 2002, 23% of boys and 19% of girls in Grade 9 report having had sexual intercourse at least once, compared to 40% of boys and 46% of girls in Grade 11 who report having sexual intercourse at least once. However, slightly fewer students, notably boys, indicate in 2002 that they have had sexual intercourse. Those not engaged in intercourse usually explain this on the basis of not being ready or not having had the opportunity. Those who are sexually active most commonly cite love and curiosity/experimentation as rationales. There is also an indication that youth are familiar with condom use, and that over one-quarter of them used both a condom and birth control pill at last intercourse.

There were also findings that warrant concern and further attention. Confidence levels related to coping skills and self-esteem have dropped since the 1989 CYAS. Over 20% of students report being the brunt of sexual jokes or comments related to their looks on at least one occasion over a two-month period. Perhaps of greater concern is students' reported prevalence of alcohol use and episodes of drunkenness. In addition, substantial

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numbers of students name partying and engaging in rebellious activities as ways of becoming popular at school. In terms of sexual knowledge, less than half of Grade 9 students and slightly more than half of Grade 11 students know that Vaseline is not a good lubricant. Two-thirds of Grade 7 students and half of Grade 9 students do not know that there is no cure for HIV/AIDS. Students in 2002 generally exhibit lower levels of sexual knowledge than those who participated in the 1989 CYAS. On issues of sexual behaviour, girls with low self-esteem are more likely to engage in risky sexual behaviour. Through the use of a School Attachment Scale, it was determined that those students who showed poor attachment to their school were more likely to engage in risky sexual activities than those who showed strong attachment to school. It is also clear that fear of deleterious outcomes has a minimal impact on decisions to become sexually active. Almost half of the Grades 9 and 11 girls in the study who are sexually active and have been pregnant report having had four or more sexual partners, a fact that increases the likelihood of unintended and unhealthy consequences.

From an educational perspective, the findings of this study reinforce the need for a comprehensive focus on students' sexual health. Such a focus must go beyond an exploration of the knowledge, attitudes, and behaviour of youth, to an exploration of the contexts under which they engage in sexual activities and the belief systems that inform both positive and negative actions. There is also a continued need to ensure that sexual health services are targeted towards those who need them most.

Factors influencing knowledge, attitudes and behaviours

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 gonorrhea reported in the same time period, 41% were among women between the ages of 15 and 19 (Health Canada, 2002).



Figure 1.1: Number of Positive HIV Test Reports Among 15 to 19 Years Old

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 gonorrhea, \$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.

Π **Conceptual Framework**

The conceptual framework that underlies CYSHHAS has three major components (Figure 1.2): a) psychosocial-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.





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 territories¹. 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

¹ 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 schoolbased 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 participants². 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)³. 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 Alberta⁴. 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

² 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.

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

⁴ 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.

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
Total	3,587	3,841	3,697

Table 1.1: Sample Size

Table 1.2: Distribution of Students in Each Grade by Gender

	Grade	7	Grade 9		Grade 1	1
Gender	n	%	n	%	п	%
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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Chapter 2

DETERMINANTS OF SEXUAL HEALTH

A. Introduction

Determinants of sexual health used in CYSHHAS include sociodemographic variables that have been linked to sexual behaviours and the sexual health of adolescent populations. Parental income, occupation, educational achievement, degree of religiosity, gender identity and disability have been found to be related to sexual activity during the teenage years. The school context represents another environmental variable that has been linked to the health of youth (King, Boyce, & King, 1999). Further, coping skills and personal health practices are linked to sexual health. Adolescents with emotional and mental health difficulties, as indicated by a lack of coping skills, are more likely to engage in risk behaviours related to eating disorders, as well as smoking, alcohol, and drug use. Such risk behaviours are associated with early initiation of sexual experiences (Taylor-Seehafer & Rew, 2000).

Other determinants of sexual health may be found within family structures and the nature of relationships among family members (Kotchik et al., 2001; Turner et al., 1993). Parental communication, role modeling, and trust of adolescents has been related to depression and risky sexual behaviour among teens (Feldman & Brown, 1993). Adolescent interactions within peer groups, and their perceptions of these interactions, constitute another type of sexual health determinant. Peer groups offer adolescents access to health information, as well as collective frameworks for interpreting this information. Further, the extent to which an adolescent is integrated into a peer group is related to whether he or she will manifest physical or emotional problems (Page, Scanlan, & Deringer, 1994). Finally, the presence of health and social organizations in a community, and adolescent awareness of information associated with these services, has been associated with adolescent sexual health behaviours. Indeed, some limited evidence indicates that access to community health services and sexual education reduces adolescent pregnancy rates (Orton & Rosenblatt, 1991).

B. Socio-Demographic Determinants

While little research links family wealth to adolescent sexual behaviour, domestic situations that feature low incomes and overcrowded housing are associated with child health problems (Ontario Child Health Survey, 1989). Figures 2B.1 to 2B.3 illustrate that most students in CYSHHAS view their families as possessing average wealth. However, it is interesting to note that younger boys are most likely to feel that their families are wealthy.





Figure 2B.1: Perceived Family Wealth, Grade 7 (%)

Figure 2B.2: Perceived Family Wealth, Grade 9 (%)





Figure 2B.3: Perceived Family Wealth, Grade 11 (%)

Questions about parental occupational status were also asked in CYSHHAS. About 90% of students indicate that their fathers are employed. Figure 2B.4 indicates that more youth have fathers who are skilled workers. Further, students were asked about reasons for their father's unemployment, if that was the case. Around one quarter of youth whose fathers are unemployed report that their fathers are looking for a job (Figure 2B.5). By comparison, older students indicate more often that their fathers are unemployed due to illness or retirement.



Figure 2B.4: Father's Occupation (%)

■ Grade 7 ■ Grade 9 □ Grade 11



Figure 2B.5: Father's Reason For Unemployment (%)

About 80% of youth indicate that their mothers are employed and students most commonly report that their mothers work in semi-skilled jobs (Figure 2B.6). Further, if mothers are unemployed they tend to be taking care of others or working in the home (Figure 2B.7).



Figure 2B.6: Mother's Occupation (%)

■ Grade 7 ■ Grade 9 □ Grade 11



Figure 2B.7: Mother's Reason For Unemployment (%)



Ethnic and religious membership also influence sexual behaviour and risk-taking practices (Howard, 1985). Students in CYSHHAS were asked about the language usually spoken at home environment. Two-thirds of the students stated English is their predominant language, while one-third stated French as their predominant language and only about 5% of students reported the use of other languages at home (Figure 2B.8). Canadian 2002 census date indicate that among students ages 10 to 19, 70% speak English, 20% speak French, and 8% speak another language (Statistics Canada (a), 2003). As such, there is a slight under-representation of English speakers and other language speakers in the CYSHHAS sample, and a slight over-representation of French language speakers.





■English ■French □Other

Catholics comprised approximately half of the CYSHHAS sample (Figure 2B.9), which is in accordance with 2001 Canadian census data indicating that 47% of the population identify themselves as Catholics (Statistics Canada (b), 2003). Only about 20% of adolescents indicate that they do not belong to any religion and there is a slight decrease in this number across grades.



Figure 2B.9: Religious Affiliation (%)



Homophobic attitudes harm the self-esteem of gay/lesbian/bi-sexual adolescents and may lead to depression, suicide, and an increased incidence of risky sexual behaviours (Radkowksy & Siegel, 1997). Students were asked to indicate their sexual orientation, as measured by their physical attraction to members of the same, opposite, or both sexes (Figures 2B.10 to 2B.12).











■Males ■Females



Figure 2B.12: Sexual Orientation, Grade 11 (%)

■ Males ■ Females

Overall, fewer than 3% of the sample indicate that they are attracted to members of the same sex. This may be an underestimate as adolescents of these ages may be uncomfortable in identifying their sexual preferences, or may not be fully aware of their own sexual orientation. It is interesting to note that the number of students in Grades 9 and 11 who report that they are attracted to students of both sexes is equivalent to those who report a same sex orientation. Also, 9% of the Grade 7 students indicate that they are attracted to neither sex, although this number drops sharply in the older grades.

In a related question, Grade 9 and 11 youth were asked if they wished they had been born the opposite sex (Figure 2B.13). About 5% of students indicate that they wish that they had been born members of the opposite sex. This does not necessarily indicate gender confusion at this age, but may only represent social desirability of preferential treatment.



Figure 2B.13: Students Who Wish They Had Been Born The Opposite Sex (% Strongly Agree And Agree)

Youth with disabilities are at greater risk for negative health outcomes than their peers. Specifically, adolescents with learning disabilities or mobility impairments are more likely to report suicidal behaviour and early sexual activity (Blum, Kelly, & Ireland, 2001). Figure 2B.14 illustrates the higher proportion of Grade 9 boys in CYSHHAS who report having a learning disability.

Figure 2B.14: Students With A Learning Disability (%)



Across all grades, approximately 4% of students indicate that they have a long term illness or disability. Figures 2B.15 to 2B.17 provide an overview of these students. Among older youth, more boys indicate that they experience difficulty with physical movement. However, younger boys are more likely to report that they experience difficulty with hearing or speaking to others. Similarly, younger girls are more likely to report epileptic seizures.







Figure 2B.16: Prevalence And Type Of Disability, Grade 9 (%)





C. School Experiences

Sexual health may be influenced by the quality of students' school experiences as measured by attitudes toward school, academic achievement, teacher support, and educational aspirations. Questions were asked about: (a) student participation in making rules; and (b) the level of strictness enforced by school authorities. Students were asked to rate their response along a 5-point scale that ranged from strongly agree to strongly disagree. Almost twice the number of younger students agree that they are able to take part in making school rules (Figure 2C.1). By comparison, gender appears to influence reports of excessive strictness in schools (Figure 2C.2), with boys more likely to report strict treatment.



Figure 2C.1: "In Our School, The Students Take Part In Making Rules" (% Strongly Agree And Agree)

■ Males ■ Females

Figure 2C.2: "The Students Are Treated Too Severely/Strictly In This School" (% Strongly Agree And Agree)



■Males ■Females

Figures 2C.3 to 2C.5 illustrate student achievement across gender and grade. Within the Grade 7 sample, 11% more girls than boys report that their achievement levels are "very good". In Grades 9 and 11, more girls report grades above 80%.





Figure 2C.4: Student Achievement, Grade 9 (%)





Figure 2C.5: Student Achievement, Grade 11 (%)

Teacher-student relationships form an important component of the school experience. Figures 2C.6 and 2C.7 show students' levels of agreement regarding statements about their teachers: "My teachers are interested in me as a person", and "My teachers expect too much from me at school."

Both age and gender differences are evident among student perceptions of teacher interest (Figure 2C.6). In Grade 7, more girls than boys agree that teachers are interested in them as people. However, this finding disappears in the Grade 9 and 11 samples. Also, fewer older boys and girls perceive their teachers are interested in them. Finally, more younger boys agree that their teachers expect too much of them at school (Figure 2C.7).



Figure 2C.6: "My Teachers Are Interested In Me As A Person" (% Strongly Agree And Agree)

■ Males ■ Females





Belief in the possibility of a satisfying future has been related to adolescent risk behaviour (Raphael, 1996). Grade 9 and 11 students were asked about their educational plans. Figures 2C.8 and 2C.9 show that the majority of students, and particularly girls, plan to go to university or college. Student interest in attending university or college has increased since 1989 (Figure 2C.10). In the current survey, 82% of Grade 9 students, in contrast to 70% in the 1989 sample, indicate an interest in going to either university or college.



Figure 2C.8: Educational Aspirations, Grade 9 (%)



Figure 2C.9: Educational Aspirations, Grade 11 (%)

Figure 2C.10: Educational Aspirations, By Year Of Survey, Grade 9 (%)



D. Coping Skills and Self-Esteem

Coping skills, self-confidence, and self-esteem have been found to be associated with youth risk behaviours (King, Boyce, & King, 1999). For example, religious beliefs may provide a coping mechanism related to delaying the first experience of intercourse (Mott et al., 1996). Figure 2D.1 illustrates the proportion of students who feel that religion is very important in their lives. The importance of religion to both boys and girls declines with age.



Figure 2D.1: "Religion Is Very Important In My Life" (% Strongly Agree And Agree)

However, youth attendance at religious institutions is on the decline across all ages (Figure 2D.2). For example, while 29% of Grade 7 students surveyed in 1989 indicated that they attended religious service weekly, only 17% of Grade 7 students in 2002 indicate weekly attendance.





Levi (1998) has argued that coping skills, such as the assertiveness that comes from having feelings of confidence and self-efficacy, are related to an adolescent's ability to resist peer pressure and make independent decisions. Self-esteem refers to the value an individual places on his or her abilities, personality and relationships with others. Self-esteem may be examined by asking how one responds to positive statements such as "I like myself" or "I have confidence in myself," as well as negative statements such as "I am often sorry for the things I do" or "I would change how I look if I could." Agreeing with the positive statements while disagreeing with the negative statements indicates high self-esteem. Using a 5-point scale, students in CYSHHAS were asked to indicate their agreement with statements concerning their assertiveness. Figure 2D.3 illustrates that almost 30% of Grade 9 and 11 students agree that they have a difficult time saying no to others. Further, Figure 2D.4 shows percentages of students who agree with the statement, "I have confidence in myself." While overall levels of agreement are high, fewer girls than boys agree that they possess confidence in themselves with this gender difference most pronounced in Grade 9. Further, student confidence levels appear to have dropped between 1989 and 2002 (Figure 2D.5).



Figure 2D.3: "I Often Have A Hard Time Saying No" (% Strongly Agree And Agree)

■Male ■Female

Canadian Youth, Sexual Health and HIV/AIDS Study


Figure 2D.5: "I Have Confidence In Myself", By Year Of Survey (% Strongly Agree And Agree)

High self-esteem and self-concept may help young people cope with difficult transitional periods in their lives. Similarly, self-esteem has been connected to an individual's control over impulsive sexuality (Chilman, 1990). Students were asked several questions about their self-esteem. A high proportion of youth indicate that they like themselves. However, boys are somewhat more likely to report liking themselves than are girls across grades (Figure 2D.6).





Regret and guilt feelings are also associated with self-esteem. Figure 2D.7 illustrates that younger students are more likely to indicate that they often feel sorry for their actions, with slightly more boys than girls reporting that they are often sorry for the things they do.



Figure 2D.7: "I Am Often Sorry For The Things I Do" (% Strongly Agree And Agree)

Self-esteem is also related to body image and dieting. Pesa (1999) demonstrated that North American female adolescent dieters score significantly lower on measures of self-esteem than do non-dieters. Poor body image and frequency of dieting behavior have also been associated with depression among adolescent girls (Stice & Bearman, 2001) and in young men (Koenig & Wasserman, 1995). In CYSHHAS, youth were asked how they rated their overall attractiveness (Figure 2D.8). In general, Grade 9 students are less likely to report that they feel that they are good looking, while slightly more boys than girls indicate the same. By comparison, Figure 2D.9 indicates that significantly more girls than boys across grades would change their looks if they could.



Figure 2D.8: Students Who Feel That They Are Very Or Quite Good Looking (%)

Canadian Youth, Sexual Health and HIV/AIDS Study



Figure 2D.9: Students Who Would Change How They Look If They Could (% Strongly Agree And Agree)

Figure 2D.10 indicates that more girls than boys are on a diet to lose weight, especially in the higher grades. Even if not on a diet, more older girls report that they actually need to lose weight (Figure 2D.11).







Figure 2D.11: Students Who Are Not On A Diet But Feel They Do Need To Lose Weight (%)

E. Risk Behaviours

Research has shown that high-risk sexual behaviour is significantly related to antisocial behaviour, illicit drug use, and alcohol and tobacco use (Biglan et al., 1990). Bullying represents one type of antisocial behaviour. In CYSHHAS, gender differences are apparent as more boys than girls report engaging in bullying behaviour at least once over a two-month period (Figure 2E.1). Further, bullying by boys increases with age while it decreases in girls.



Figure 2E.1: Students Who Indicated They Have Bullied Another Student(s) In The Past Two Months (%)

The experience of being bullied might interfere with student bonding in the school environment (Biglan et al., 1990; Foust, 1999). An outline of such experiences is presented in Figures 2E.2 to 2E.4. Between one quarter and one third of all students report being made fun of at least once over a two-month period because of the way that they look or talk (Figure 2E.2).





Bullying in the sexual health context can also take the form of telling mean lies or spreading rumours (Figure 2E.3). Slightly more girls than boys indicate that rumours were spread about them over a two-month period, although most indicate that this happened only once or twice. However, 3% of Grade 7 students report that they experience this form of bullying several times per week.





Experiencing sexual jokes, comments, or gestures can be a painful form of bullying for adolescents. Unlike other forms of bullying, the incidence of sexual jokes and gestures increases significantly for girls between Grade 7 and Grade 9 (Figure 2E.4).

<u>Factors influencing knowledge, attitudes and behaviours</u>





F. Health Risk Behaviours

Students were also asked questions about health risk behaviours related to alcohol, drug, tobacco use, and body piercing. Regular alcohol use is more prevalent among boys than it is among girls (Figure 2F.1). For example, 24% of Grade 11 boys drink once per week or more often, compared to only 18% of girls.





Males Females

Students were also asked about the age at which they first tried drinking. A majority of Grade 11 students indicate that they first tried alcohol between the ages of 12 and 15 (Figure 2F.2). It should be pointed out, however, that about 18% of students within this older age group indicate that they have never tried alcohol. Drunkenness, by comparison, is a risk behaviour that has more serious implications for the health of adolescents than does mere alcohol use. Over half of Grade 11 students report being drunk for the first time between the ages of 12 and 15 (Figure 2F.3). However, almost one third of Grade 11 youth indicate that they have never been drunk.



Figure 2F.2: Age First Tried Drinking, Grade 11 (%)

Figure 2F.3: Age First Got Drunk, Grade 11 (%)



A single experience of getting drunk is not unusual. However, frequent drunkenness may be a risk factor. In Grade 7, only 6% of students report being drunk more than once. By Grade 11, 56% of students report more than one drunken episode (Figure 2F.4).



Figure 2F.4: Frequency Of Being Drunk (%)

■Grade 7 ■Grade 9 □Grade 11

The regular use of marijuana and hashish by students is more prevalent than is the use of other more addictive substances, and increases sharply with age (Figure 2F.5).



Figure 2F.5: Drug Use Once Per Month Or More (%)

[■] Grade 9 ■ Grade 11

An increase in use of hashish and marijuana over time is apparent (Figure 2F.6). For instance, 27% of Grade 11 students in 2002 indicate the use of these drugs at least once per month, an increase from 22% in 1989.

> Figure 2F.6: Students Who Use Hashish/Marijuana At Least Once Per Month, By Year Of Survey (%)



Patterns of smoking behaviour may predict use of other substances. While 28% of Grade 7 boys and 23% of Grade 7 girls have tried smoking, by Grade 11 approximately 65% of all students indicate that they have tried tobacco (Figure 2F.7). By Grade 11, 18% of students report being daily smokers (Figure 2F.8).







Figure 2F.8: Frequency Of Tobacco Use (%)



Body piercing and tattooing are also risk behaviours that may lead to infection or facilitate the transmission of blood-borne diseases. Piercing of the body (in places other than the ears) is reported by girls much more commonly than by boys. However, older girls are slightly more likely to indicate that they have tattoos (see Figures 2F.9 and 2F.10).





[■] Males ■ Females





G. Family Structure and Relationships

Family structures and the nature of relationships among family members correlate well with youth emotional and physical health (Kotchik et al., 2001; Turner et al., 1993). Adolescents who do not feel close to their parents, or who live in single parent families, are more likely to suffer from emotional problems and engage in risk behaviours such as smoking and drug use (King, Boyce, & King, 1999). In CYSHHAS, students were asked to report all of the adults with whom they lived (Figure 2G.1). Over 70% of students across grades indicate that they live with both parents. Further, students who did not live with both of their parents are more likely to live only with their mother.





Students were also asked to rate overall satisfaction with their home environments (Figure 2G.2). Over three quarters of youth indicate that they have a happy home life with a moderate decline over the grades.

<u>Factors influencing knowledge, attitudes and behaviours</u>

[■] Grade 7 ■ Grade 9 □ Grade 11

Figure 2G.2: "I Have A Happy Home Life" (% Strongly Agree And Agree)



The quality of parental relationships may also be related to the sexual health of youth. Lack of family support, and resultant depression among young girls has been linked to having sexually active friends (Feldman & Brown, 1993; Whitbeck, Conger, & Kao, 1993). Students in CYSHHAS were asked to indicate how easy it was to talk to members of their family and their peers about things that really bother them. Figure 2G.3 illustrates that fewer older girls are able to talk to their fathers about such things.



Figure 2G.3: Students Who Find It Easy Or Very Easy To Talk To Their Father About Things That Really Bother Them (%)

■Males ■Females

More students indicate that they can easily talk to their mothers about things that really bother them (Figure 2G.4), however, there are fewer gender differences.





Ease with which parents can discuss sexual issues with youth may be an indicator of family intimacy and trust. Students were asked about the ease with which they could talk to their parents about sex (Figure 2G.5 and 2G.6). More boys than girls across grades indicate that they can talk to their fathers about sex. Not surprisingly, more girls than boys report being able to talk with to mothers about sex.



Figure 2G.5: "I Can Talk Openly To My Father About Sex" (% Strongly Agree And Agree)

[■]Males ■Females



Figure 2G.6: "I Can Talk Openly To My Mother About Sex" (% Strongly Agree And Agree)

Parental permissiveness and levels of strictness (Jemmott & Jemmott, 1992) were also explored by asking students about parental feelings on dating behaviour (Figures 2G.7 and 2G.8). Fewer girls than boys report that their fathers want them to date. Mothers are reported to be somewhat more in favour of their daughters dating.





■Males ■Females





H. Peers

Young people share values within the context of peer groups and these values influence adolescent behaviour. Biglan et al. (1990) found that young people whose peers engage in diverse risk behaviours are more likely to engage in risky sexual behaviour. Students in CYSHHAS chose from a group of activities and qualities that they believed enhanced student popularity at school (Figures 2H.1 and 2H.2). Over 75% of students indicate that hanging out with the right crowd, possessing good looks, and having a good personality are ways to become popular. By comparison, having a boyfriend or girlfriend, getting good marks, or having musical or artistic talent are less important for being popular. Further, significant numbers of youth report that partying and engaging in rebellious behaviour are ways to become popular.

[■]Males ■Females



Figure 2H.1: "How Does A Person Your Age Become Popular At School", Males Only (%)

■ Grade 7 ■ Grade 9 □ Grade 11







Overall, a greater proportion of older youth, especially boys report that they spend most of their spare time partying (Figure 2H.3).



Figure 2H.3: "Most Of My Spare Time Is Spent Partying" (% Strongly Agree And Agree)

Students were asked about normative behaviour and values shared by their peers, such as the sexual activity of their friends. Figure 2H.4 describes student perceptions of peer sexual activity in Grades 9 and 11. Older students are more likely to perceive that more of their friends have had sexual experiences.





Grade 9 Grade 11

The valuing and practice of drug use within peer groups may increase sexual health risks among adolescents (Biglan et al., 1990). Students in CYSHHAS were asked about the proportion of their friends who they believed use drugs to get stoned. While few gender differences are found, response differences by grades emerge regarding friends using drugs to get stoned. Indeed, 26% of Grade 11 and 18% of Grade 9 students report that more than half of their friends use drugs to get stoned (Figure 2H.5).



Figure 2H.5: Students Who Indicated That Their Close Friends Use Drugs To Get Stoned (%)

I. Health and Education Services

Health and education services represent social structures that may influence adolescent sexual behaviour by providing appropriate information. However, adolescents who possess information of risks associated with unprotected sex may not apply this knowledge when making decisions about their sexual behaviour. In CYSHHAS, students were asked about where they would go first for advice if they believed that they had a sexually transmitted disease (Figure 2I.1). The most popular choices made by Grade 11 girls include friends (32%), parents (17%) and family doctor (17%). By comparison, the most popular choices among boys include the family doctor (31%), and parents (21%). Only 13% of boys gave friends as their first choice for advice if they thought they had an STI.



Figure 2I.1: "Where You Would Go First For Advice If You Thought You Had A Sexually Transmitted Disease?", Grade 11 (%)

Regular use of health services may prevent negative sexual health outcomes, or at least allow treatment of specific health problems. Over one half of the Grade 9 and 11 students had visited a doctor or health clinic for a regular check-up in the past 12 months. However, only 34% of Grade 11 girls visited doctors in this period for reasons related to birth control or pregnancy, and only 2% of boys did the same (Figure 2I.2). Far fewer students (less than 3% of girls; less than 1% of boys) visited doctors for testing/treatment of sexually transmitted infections in this period.



Figure 2I.2: Students Who Visited A Doctor Or Health Clinic For Birth Control Or Pregnancy In The Past 12 Months (%)

A lack of knowledge about, or barriers to the access of, condoms may influence the sexual practices and sexual health of adolescents. Figure 2I.3 summarizes Grade 11 student responses to an item that asked where do they think young people would most likely go to get condoms. Differences across gender and age groups are apparent in these responses. Older students are far more likely to report that young people would go to a drug store or convenience store to purchase condoms. Between 12% and 16% of students state they do not know where young people are most likely to go to get condoms.



Figure 2I.3: "Where Would Young People Most Likely Go To Get Condoms?", Grade 11 (%)

King and Wright (1993) have suggested that parents might discourage youth from finding out relevant knowledge in order to discourage teenage sexual activity. Figure 2I.4 provides a description of the main sources of sexual health information actually used by Grade 9 youth. Most students indicate that school constitutes their main source of sexual health information. Indeed, over 45% of all Grade 9 students indicate this choice. Further, more boys than girls report that school is their main source of information. By comparison, far more girls than boys indicate that their mother and friends constitute their main source of information from the Internet, television, and the movies than do girls.

Figure 2I.4: Main Source Of Information About Human Sexuality/Puberty/Birth Control, Grade 9 (%)



Similarly, the greatest proportion of students indicate that they get information about HIV/AIDS from school rather than other sources (21.5).





Students were also asked about the number of hours they spent within school actually learning about sexuality/puberty/birth control over the past two school years (Figure 2I.6). Over one half of Grade 7 students

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report that they received two hours or less of instructional time. By comparison, one half of Grade 9 students indicate that they spent five or more hours of instructional time on these subjects.



Figure 2I.6: Number Of Hours Spent Learning About Human Sexuality/Puberty/Birth Control Over The Past 2 School Years (%)

It is apparent that changes have occurred since 1989 regarding the roles of television, school, and health professionals in providing information about HIV/AIDS to youth. Far fewer students in 2002 report that television and movies provide a significant source of information about HIV/AIDS (Figure 2I.7). Further, Grade 9 students in 2002 are more likely to report school as their main source of information about HIV/AIDS, perhaps because of the timing of the human sexuality curriculum at the beginning of secondary school.



Figure 2I.7: Main Source Of Information About HIV/AIDS, By Year Of Survey, Grade 9 (%)

Finally, students were asked about the number of hours that they had spent in school over the previous two years actually learning about HIV/AIDS (Figure 2I.8). Overall, the majority of adolescents indicate that they received only two or fewer hours of instruction in this topic area.



Figure 2I.8: Number Of Hours Spent Learning About HIV/AIDS Over The Past Two School Years (%)

■ Grade 7 ■ Grade 9 ■ Grade 11

Summary

This chapter has outlined various potential determinants of adolescent sexual health. Other research has indicated that these determinants are linked to sexual behaviours and risk behaviours and are possibly linked to sexual health outcomes. Some of the findings within this chapter are as expected while others are alarming. The relatively rare use of more harmful, addictive drugs among youth and the generally supportive nature of peers may predict positive sexual health outcomes. However, the prevalence of alcohol use, repeated drunkenness, and the lack of student use of health services that can educate them about STDs/HIV/AIDS prevention also suggests the possibility of some very negative adolescent sexual health outcomes.

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Chapter 3

SEXUALITY AND SEXUAL HEALTH

A. Introduction

Decisions about sexual activity are often first made during adolescence and these decisions are likely to influence one's sexual health into adulthood. Most adolescents learn about their sexuality by exploring new feelings and new activities. Unfortunately, there is also considerable pressure during this period to conform to peer and social values.

Determining levels of youth sexual behaviours, sexual health attitudes, and knowledge about sexual health issues are the focus of this chapter. First, we describe students' knowledge about HIV/AIDS and other Sexually Transmitted Infections (STIs). Knowledge is an important foundation for positive sexual health, since effective protection against HIV/AIDS and other STIs requires an understanding of disease transmission, prevention and prognosis.

However, knowledge alone is not sufficient to reduce risky behaviour. Both information and personal experiences will shape adolescents' values and beliefs about many aspects of sexuality. Thus, we examine students' attitudes towards people living with HIV/AIDS and their fears of contracting the disease, as well as their views about being sexually active.

Sexual behaviours among adolescents are then examined in detail. Information about specific sexual experiences is reported as well as student motivations in abstaining from, or engaging in, sexual activity. We then examine negotiating skills, contraception, and methods of STI protection, in order to assess the extent to which adolescents are equipped to protect themselves from the potentially negative health outcomes of sexual activity. We also describe the nature of teenage dating relationships, as the degree of comfort and communication between partners is likely to influence the quality of adolescent sexual health.

Finally, in examining these data, we describe the characteristics of sexually active youth, including elements of self-esteem and risk-taking behaviours.



B. Knowledge of HIV/AIDS and other STIs

Knowledge about transmission and protection

A key step in encouraging sexual health among youth is to inform them of potential health risks, such as HIV/AIDS and other sexually transmitted infections, and how to avoid these negative sexual health outcomes. Curricula designed to inform teenagers about HIV/AIDS and other STIs have been in place across Canada since the late 1980s. To determine what young people today know about these health issues, we presented students with 8 or 18 knowledge statements, depending on their grade, about HIV/AIDS and other STIs. Students were asked to mark each statement as True, False, or, if they were unsure of the answer, Don't Know. Many of the statements were similar in wording to those used in the 1989 Canada Youth & AIDS Study. The statements reflected knowledge about aspects of disease transmission, diagnosis, and treatment, all of which are important for prevention.

Most of the students are able to correctly identify the means of transmission of HIV, such as sharing drug needles, having unprotected sexual intercourse or having multiple sexual partners. In both Grade 9 and 11, girls fare slightly better on these items than boys. However, students appear uncertain as to how to protect themselves once the decision to become sexually active is made. Only 40% of Grade 9 students (Figure 3B.1) and 53% of Grade 11 students (Figure 3B.2) are aware that Vaseline is not a good lubricant to use with condoms. Similar proportions of students know that men who have unprotected sex with men increase their risk of getting HIV/AIDS. However, fewer students are able to correctly identify the statement "The risk of HIV infection is higher with vaginal sex than with anal sex" as being False. Students were also tested on their ability

When a person shares drug needles, he or she is at 86 risk of catching HIV/AIDS. (True) 91 Having more than one sexual partner increases the risk of being infected with HIV/AIDS. (True) 84 Condoms give 100% protection from HIV/AIDS. 69 (False) 78 It is possible to become infected with HIV by having 78 unprotected sex only once. (True) 84 The most effective way to avoid being infected with 65 HIV is to not have sex (abstinence). (True) 70 Men who have unprotected sex with men increase 41 their risk of getting HIV/AIDS. (True) 36 Vaseline is not a good lubricant to use with a 41 condom. (True) 39 There are vaccines available to prevent HIV/AIDS. 36 (False) 36 The risk of HIV infection is higher with vaginal sex 26 than with anal sex. (False) 22

Figure 3B.1: Knowledge Of HIV/AIDS Transmission And Protection, Grade 9 (% correct)

■ Males ■ Females

to identify myths and misconceptions about HIV/AIDS protection. The majority of students are aware that condoms do not provide 100% protection from HIV/AIDS. Unfortunately, some students have the misconception that there is a vaccine available to prevent HIV/AIDS.



Figure 3B.2: Knowledge Of HIV/AIDS Transmission And Protection, Grade 11 (% correct)

Knowledge about diagnosis and treatment

Facts regarding the diagnosis and treatment of HIV/AIDS appear to be less clear to students. Perhaps most alarming is that approximately one half of Grade 9 students do not know that no cure exists for HIV/AIDS (Figure 3B.3). There is no gender difference in knowledge regarding diagnosis and treatment among Grade 9 students, but among Grade 11 students, girls are slightly more likely than boys to answer these items correctly (Figure 3B.4).



Figure 3B.3: Knowledge Of HIV/AIDS Diagnosis And Treatment, Grade 9 (% correct)





Knowledge about STIs and HIV/AIDS

CYSHHAS also included several statements regarding other STIs. The majority of Grade 9 and 11 students are able to correctly identify the statement "If a person has had an STI, he or she cannot catch it again" as being False (Figures 3B.5 and 3B.6). However, statements about specific STIs, such as genital herpes or chlamydia, prove to be more difficult. It is alarming to note that just over one half of Grade 11 students and less than one

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half of Grade 9 students are aware that people with STIs may not have any signs or symptoms. Less than 10% of students are able to correctly identify the statement "Men and women are equally likely to have serious problems if they catch an STI" as being False. Although there is no gender difference among Grade 9 students, Grade 11 girls appear to be more knowledgeable about STIs than Grade 11 boys.



Figure 3B.5: Knowledge Of Other STIs, Grade 9 (% correct)





Of the 8 knowledge statements presented to Grade 7 students, four were identical to statements presented to Grade 9 and 11 students and are marked in Figure 3B.7 with (**) asterisks. Grade 7 students do well on items

about transmission and protection, with over one half able to correctly identify sharing drug needles as a risky behaviour, and use of condoms during sex as a good preventive measure. Statements about diagnosis and treatment are more difficult. More than one half of Grade 7 students are aware that HIV/AIDS blood tests exist, but fewer know that HIV/AIDS weakens the body's defence against disease or that AIDS may develop ten years after HIV infection occurs. Most alarming is that only about one third of Grade 7 students know that HIV/AIDS cannot be cured (Figure 3B.7).



Figure 3B.7: Knowledge Of HIV/AIDS, Grade 7 (% correct)

The proportion of students in 1989 and 2002 who were able to give correct answers to these knowledge statements were compared. The results are disappointing, as it appears that the students surveyed in 1989 were better informed on a variety of HIV/AIDS and STI-related knowledge issues.

To begin, adolescents in 1989 were generally more knowledgeable about HIV/AIDS transmission and protection than today's youth. For example, 83% of Grade 7 students in 1989 knew that sharing drug needles increases risk of HIV/AIDS, while only 62% of Grade 7 students answer this item correctly in 2002 (Figure 3B.8). Similarly, the proportions of students who knew that multiple sexual partners increases risk of HIV/AIDS (Figure 3B.9), and that condoms can help to reduce the risk (Figure 3B.10), were lower in 2002 than in 1989. However, one item shows significant improvement: in 2002, 53% of Grade 11 students are aware that Vaseline is not a good lubricant to use with condoms, which has increased from 42% in 1989 (Figure 3B.11).









Figure 3B.10: "When People Have Sex, Using A Condom Helps Protect Them From HIV/AIDS" (True), By Year Of Survey (% correct)



Figure 3B.11: "Vaseline Is Not A Good Lubricant To Use With A Condom" (True), By Year of Survey (% correct)



Similarly, with respect to issues of diagnosis and treatment, very little improvement in knowledge can be seen over the past 14 years. Adolescents in 1989 were more likely to know it was incorrect to assume HIV/AIDS can be cured if treated early (Figure 3B.12). This suggests that there may be a false sense of complacency about the disease among today's youth.



One of the largest differences in knowledge appeared with the true statement "There are blood tests that show if a person has been infected by HIV/AIDS," which was answered correctly by 89% of Grade 7 students in 1989, but only by 59% in 2002 (Figure 3B.13).



Similarly, today's students are less clear about survival time if one is HIV positive (Figure 3B.14).



However, one area where current students appear to have better knowledge is regarding STIs other than HIV/AIDS. For example, a greater proportion of Grade 9 and 11 students in 2002 know that chlamydia can lead to serious complications (Figure 3B.15). Other items on STIs show mixed results (Figures 3B.16 and 3B.17).



17).



Figure 3B.16: "If A Person Has Had An STI, He Or She



Knowledge scores

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This section summarizes the proportion of correct answers to the knowledge items (described in the previous 2 sections) by students in each of Grades 7, 9, and 11. Grade 7 students were asked to respond to 8 knowledge statements (see Figure 3B.7). Approximately 50% of students are able to answer at least half of the items correctly, with less than 5% able to answer all correctly (Figure 3B.18).



Figure 3B.18: Number of Correct Answers To Knowledge Statements, Grade 7 (%)

■ Males ■ Females

Grade 9 and 11 students were presented with 18 knowledge statements (see Figures 3B.1 to 3B.6). More than 60% of students in Grade 9 are able to answer 8 or more of the items correctly, with 3% obtaining a high score of between 16 and 18 items correct (Figure 3B.19). Grade 11 students fare even better, with 87% of students able to answer 8 or more of the items correctly, and 10% of students obtaining a high score of between 16 and 18 correct items (Figure 3B.20).



Figure 3B.19: Number of Correct Answers To Knowledge Statements, Grade 9 (%)




Sources of information and knowledge scores

To determine how effective various sources of information (see Chapter 2) are in educating youth about HIV/AIDS, we compared the students with low scores on the knowledge items, in terms of their major source of HIV/AIDS information, to those with high scores (Figures 3B.21 to 3B.26). For Grade 7 students, having 0 to 3 items correct was considered a low score and 6 to 8 items correct a high score. For Grade 9 students, having 0 to 8 items correct was considered a low score and 12 to 18 items correct was a high score, while among Grade 11 students, having 0 to 10 items correct was considered a low score and 14 to 18 items correct a high score. In general, students who cite television/movies or the Internet as their main source of HIV/AIDS information are more likely to have low knowledge scores. The effect of using doctors/nurses/clinics as a main source of information appears to vary by grade and gender. For example, Grade 9 girls and Grade 7 girls who cite doctors/nurses/clinics as main information sources are more likely to have low knowledge scores, while no major effect is observed for other groups of students. In general, students who use school as a main source of information about HIV/AIDS are slightly more likely to have high knowledge scores, though Grade 11 boys and Grade 7 girls do not show this result.



Figure 3B.21: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 7 Males (%)



Figure 3B.22: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 7 Females (%)

Figure 3B.23: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 9 Males (%)





Figure 3B.24: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 9 Females (%)



Figure 3B.25: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 11 Males (%)



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Figure 3B.26: Main Source Of HIV/AIDS Information, By Knowledge Scores, Grade 11 Females (%)

Class instruction time and knowledge scores

The data were further examined to determine whether spending a greater number of hours of class time in learning about HIV/AIDS (see Chapter 2) would lead to higher knowledge scores. Among Grade 7 students, a greater number of hours spent learning about HIV/AIDS does not appear to influence knowledge scores (Figure 3B.27). However, among Grade 9 and 11 students, those who spent more hours learning about HIV/AIDS are more likely to obtain high knowledge scores (Figures 3B.28 and 3B.29).







Figure 3B.28: Hours Of Class Time In The Past Two Years Spent Learning About HIV/AIDS, By Knowledge Scores, Grade 9 (%)

Figure 3B.29: Hours Of Class Time In The Past Two Years Spent Learning About HIV/AIDS, By Knowledge Scores, Grade 11 (%)



C. Sexual Health Attitudes

Attitudes towards HIV/AIDS and other STIs

The information that adolescents receive about HIV/AIDS, as well as their own personal experiences, are likely to influence their fears of the disease, their feelings toward people affected by it, and their beliefs about certain aspects of sexuality. Also, by examining attitudes concerning sexuality among adolescents, most of whom are just beginning to consider sexual relationships, we gain insight as to why they behave in the way they do.

Students were presented with several statements that reflected attitudes and fears with respect to their own susceptibility to HIV/AIDS, and responded to each along a scale ranging from "Strongly Agree" to "Strongly Disagree." Approximately one half of the students in all three grades indicate that they do worry about getting an STI, and an equal proportion also worry specifically about catching HIV/AIDS (Table 3C.1). No major gender differences were observed in worrying about HIV/AIDS and STIs. Only a very small proportion of students at each grade level report that HIV/AIDS is discussed within their peer group. However, Grade 9 girls are slightly more likely to engage in such discussions than Grade 9 boys.

	Grade 7		Grade 9		Grade 11	
	Males	Females	Males	Females	Males	Females
l worry about getting an STI.	43	46	47	56	49	49
I am worried about catching HIV/AIDS.	43	46	47	53	47	43
My friends and I often talk about HIV/AIDS.	6	7	5	10	6	9

Table 3C.1: Fear Of HIV/AIDS (% Strongly Agree And Agree)

Several of the statements presented to the students were designed to detect negative personal attitudes to people afflicted with HIV/AIDS, such as "I could not be a friend of someone who has HIV/AIDS" and "People who have HIV/AIDS get what they deserve." The proportion of students who agree with these statements is highest among Grade 7 students, but decreases among Grade 9 and 11 students (Table 3C.2). The older students' empathy for persons living with HIV/AIDS may be a reflection of their increasing maturity or of their higher level of knowledge about the disease. Additionally, across all three grades, boys are more likely than girls to agree with these negative statements.

Despite the fact that a relatively small proportion of students agree with negative personal statements about persons living with HIV/AIDS, it should be noted that almost one half agree with the statement "People who have HIV/AIDS should be allowed to serve the public," and the proportion varies little across the three grades. This indicates a respect for basic human rights of those with HIV/AIDS.

	Grade 7		Grade 9		Grade 11	
	Males	Females	Males	Females	Males	Females
l could not be a friend of someone who has HIV/AIDS.	22	17	12	8	9	6
People who have HIV/AIDS get what they deserve.	16	10	10	5	7	3
People who have HIV/AIDS should be allowed to serve the public.	41	42	41	47	38	41

Table 3C.2: Attitudes Towards Persons Living With HIV/AIDS (% Strongly Agree And Agree)

Attitudes towards sexuality

Grade 9 and 11 students were also asked to respond to statements that reflected attitudes toward their own sexuality (Table 3C.3). Approximately two-thirds of students agree with the statement "It's alright for two people to have sex before marriage only if they are in love," with Grade 9 boys as the group with the largest proportion in agreement. Grade 11 students are more likely to agree with the statements "It's alright to masturbate" and "It's alright to have casual sex" than Grade 9 students. In both grades, boys are considerably more likely to agree with these statements than girls. Only a small proportion of students agree with the statement "I feel guilty when I think about sex."

	Gra	de 9	Grade 11	
	Males	Females	Males	Females
It's alright for two people to have sex before marriage only if in love.	70	64	65	64
It's alright to masturbate.	59	31	63	35
It's alright to have casual sex.	54	29	66	32
I feel guilty when I think about sex.	6	6	5	6

Comparison of attitudes between the 1989 and 2002 surveys

Several of the attitude items on the 2002 CYSHHAS questionnaire were similar to those presented to participants in the 1989 CYAS survey, allowing us to determine how attitudes among adolescents have shifted over time. In 2002, slightly fewer students across all three grades are likely to agree with the statement "I am worried about catching HIV/AIDS" than in 1989 (Figure 3C.1).



However, students in 2002 are slightly less likely to agree with negative personal statements such as "I could not be a friend of someone who has HIV/AIDS" (Figure 3C.2), and "People who have HIV/AIDS get what they deserve," than students in 1989 (Figure 3C.3).



Figure 3C.2: "I Could Not Be A Friend Of Someone Who Has HIV/AIDS", By Year Of Survey (% Strongly Agree And Agree) Similarly, the proportion of students in 2002 who agree with the statement "People who have HIV/AIDS should be allowed to serve the public" has increased from 1989, with the largest difference observed in Grade 11 students (Figure 3C.4). In general, these results reflect an increase in positive attitudes towards people living with HIV/AIDS, particularly among older adolescents. This trend is in combination with a decrease in youth feelings of susceptibility to HIV/AIDS since 1989.



D. Sexual Behaviour

Sexual activity

To develop a better understanding of adolescent sexual behaviour in Canada, students were asked to report on the type and frequency of their sexual activities. Students in Grades 9 and 11 were asked more detailed questions than students in Grade 7.

High proportions of both male and female students in Grades 9 and 11 report having engaged in preliminary sexual activities such as deep (open-mouth) kissing, touching above the waist or touching below the waist. Fewer Grade 7 students report such experiences, with more boys reporting preliminary sexual experiences (Figures 3D.1 to 3D.3).







Figure 3D.2: Touching Above The Waist At Least Once (%)

■ Males ■ Females





Students in Grades 9 and 11 were specifically asked whether or not they had experienced oral sex or vaginal sexual intercourse. About one third of Grade 9 students and more than one half of Grade 11 students report having had oral sex at least once (Figure 3D.4). However, fewer students report having had vaginal sexual intercourse (Figure 3D.5). Among Grade 9 students, 23% of boys and 19% of girls report having had sexual intercourse, while 40% of boys and 46% of girls in Grade 11 have had sexual intercourse.

Grade 7 students had the option of specifying "Other" sexual experiences and writing these into their survey forms. Using these additional reports, we observe that at least 1% of Grade 7 students have had oral sex and at least 2% have had sexual intercourse.



■ Males ■ Females

Figure 3D.5: Sexual Intercourse At Least Once (%)



Comparison of sexual activity between 1989 and 2002

We compared these 2002 results to those obtained in 1989 regarding the preliminary sexual activities of Grade 9 and 11 students. The proportions of students engaging in these activities have remained quite consistent over the past 14 years (Figures 3D.6 to 3D.8).

Figure 3D.6: Deep (Open-Mouth) Kissing At Least Once, By Year Of Survey (%)



∎1989 ■2002



∎1989 ■2002





However, the proportions who have had sexual intercourse have decreased since the 1989 study. This decline has been much greater for boys than for girls at both grade levels. The proportion of boys who report being sexually active has decreased by 8% among Grade 9 students and by 9% for Grade 11 students. It is also interesting to note that in 1989 sexual intercourse was more common among Grade 11 boys, but there is now a greater proportion of Grade 11 girls who have had sexual intercourse (Figure 3D.9).

Figure 3D.9: Sexual Intercourse At Least Once, By Year Of Survey (%)

In comparing frequency of sexual intercourse, it is more common for sexually active students in 2002 to report having intercourse "Often" than in 1989, across both grades and genders (Figures 3D.10 to 3D.13). Thus, slightly fewer students are having sex, but those that do tend to be sexually active more frequently.









Figure 3D.12: Frequency Of Sexual Intercourse Among Sexually Active Grade 11 Males, By Year Of Survey (%)





Reasons for not having sex

Students in the CYSHHAS who were not yet sexually active were asked to choose one of ten possible reasons for their abstinence (Figures 3D.14 and 3D.15). Overall, the most common reason is that they are "Not ready" to have sex, though this response is more common among girls than boys, and also more common among Grade 9 students than Grade 11 students. More boys than girls in both grades cite "Have not had the opportunity" as their main reason. More equal proportions of male and female students who were not sexually active say they "Have not met the right person". More girls in both grades say they wish to be virgins until marriage. However, no major difference between gender is apparent for "Religious beliefs," as 4% of boys and 5% of girls choose this response. It is worth noting that the potential negative health outcomes of sex do not appear to be a major reason for students abstaining from sex. Only a small proportion of students (more girls than boys) cite "Fear of pregnancy" as their main reason for not having intercourse, and less than 2% abstain from sex due to fear of HIV/AIDS or other STIs. Similarly, less than 2% of students abstain due to parents' or friends' disapproval, indicating that negative family and peer opinions do not play major roles in the decision not to have sex.



Figure 3D.14: Reasons Cited For Not Having Sexual Intercourse, Grade 9 (%)



Figure 3D.15: Reasons Cited For Not Having Sexual Intercourse, Grade 11 (%)

Reasons for having sex

Sexually active students in Grades 9 and 11 were asked to choose one of seven possible reasons for having their first experience of sexual intercourse (Figures 3D.16 and 3D.17). Overall, the most common responses cited are "Love for the person, "Curiosity/experimentation" and "Influence of alcohol/drugs," although there are several differences across grade and sex. In both Grades 9 and 11, girls are more likely than boys to choose the answer "Love for the person," although the proportion of both boys and girls increases among Grade 11 students. This difference between age groups suggests an increasing maturity of older adolescents' attitudes towards sex. In both grades, more boys than girls choose "Curiosity/experimentation" as their main response, and this is the second most common motive for first intercourse. Under 10% of students say that being "Under the influence of alcohol or drugs" was the main reason for their first sexual intercourse. A similar proportion of students say they first had sex because they "Got carried away," with Grade 9 girls as the group most likely to give this answer. Losing one's virginity as a reason for first having sex is selected by 10% of boys across

grades, but the corresponding proportion among girls is much lower at 3%. Few cite "Loneliness" as the main reason for having their first sexual intercourse.



Figure 3D.16: Reasons Cited For First Sexual Intercourse, Grade 9 (%)

■ Males ■ Females





Age of sexual initiation and number of partners

Those students who reported being sexually active were asked for more detailed information about their sexual behaviour. These students were asked about their age at first intercourse and their number of lifetime sexual partners. Since only students up to Grade 11 were surveyed in the CYSHHAS the average age of first sexual intercourse for this sample is 14.1 years among boys and 14.5 years among girls. Approximately one half of the students who have had sexual intercourse report having only one sexual partner, but many students have had 4 or more partners (Figures 3D.18 and 3D.19). In general, boys tend to report a greater number of partners than girls. For example, among sexually active Grade 9 boys, 22% report having between 4 and 10 partners, whereas only 14% of Grade 9 girls are in this category.









In 1989, data were collected on the number of sexual partners only for Grade 11 students. It is more common in 2002 for Grade 11 students to have only one or two sexual partners than in 1989, particularly among boys (Figures 3D.20 and 3D.21).





E. **HIV/AIDS and STIs Protection**

Understanding adolescents' practices and attitudes towards protection and contraception is important in identifying their risk of acquiring STIs, HIV/AIDS, or becoming pregnant. The number of boyfriends/girlfriends that adolescents have, and their ability to communicate with their partners about the use of contraceptive and preventative measures, may influence their adoption of safer sex practices.

Contraceptive and protective measures used

Between 5% to 10% of students in Grades 9 and 11 report not using any type of contraceptive measure the last time they had sexual intercourse (Figures 3E.1 and 3E.2). Between a quarter (Grade 9) to a third (Grade 11) of students report using both the birth control pill and the condom the last time they had sexual intercourse. Our survey supports the findings that as adolescents get older, the pill becomes a favourite method of contraception (Cheesbrough, Ingham, and Massey, 1999). This may explain the decline in the proportion of students who report using only the condom in Grade 11, especially females. However, this change in condom use places girls at a higher risk for health problems since oral contraceptives do not offer protection against STIs. Although most students who rely on the withdrawal method do so in combination with some other method of protection, the proportions relying, at least in part on withdrawal are noteworthy, 7% in Grade 9 and 11% in Grade 11.





Males Females



Figure 3E.2: Contraceptive Measures Used Last Time Had Sexual Intercourse, Grade 11 (%)

Reasons for not using condoms

Determining why young people do not use condoms is a key concern. It is apparent that younger girls often do not expect to engage in sexual intercourse, though a consistent proportion of boys (28%) in both grades also report engaging in unplanned sexual intercourse (Figures 3E.3 and 3E.4). These findings are similar to other studies of adolescent condom use where not planning ahead was one of the main reasons for not using condoms (Sieving et al., 1997). Very few students in our sample state they did not use a condom because they did not know how.



Figure 3E.3: Reasons Condom Not Used Last Time Had Sexual Intercourse, Grade 9 (%)



Figure 3E.4: Reasons Condom Not Used Last Time Had Sexual Intercourse, Grade 11(%)

Alcohol or drugs and sexual intercourse

Boys across both Grades 9 and 11 were more likely than girls to have used alcohol or drugs before their last intercourse (Figure 3E.5). Only 20% of girls in Grade 11, compared to almost 30% of girls in Grade 9, used alcohol or drugs before their last sexual intercourse. Adolescents who drink alcohol or use drugs before engaging in sexual intercourse are less likely to use protection or contraceptive measures such as condoms, and are therefore at a high risk of becoming pregnant or acquiring STIs or HIV/AIDS (Godin & Michaud, 1996).



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Pregnancy

Although twice as many sexually active boys in Grade 9 versus those in Grade 11 report getting a partner pregnant, the proportion of sexually active girls who report being pregnant is equivalent across the grades (Figure 3E.6). It is clear that having more partners increases the likelihood of pregnancy among girls who are sexually active (Figure 3E.7).



Figure 3E.6: Sexually Active Students Who Have Been Or Gotten Someone Pregnant (%)

Sexually transmitted infections

There is a disproportionate, long-term impact of sexually transmitted illnesses (STIs) on girls. The proportion of students, in our school-based sample, who report ever having a sexually transmitted illness (STI) is less than 1% (Figure 3E.8), however, it is more likely that those who report having an STI are those who also have multiple partners (Figure 3E.9).



Figure 3E.8: Students Who Have Or Ever Had A Sexually Transmitted Infection (%)





Although 23% of boys and 19% girls report being sexually active in Grade 9, only 4% of students of either gender have been tested for an STI (Figure 3E.10). By Grade 11, 5% of boys and 12% of girls report being tested for an STI when close to half (40% boys and 46% girls) are sexually active. There are no Canadian data available examining barriers to adolescent STI testing or accessibility to preventive health services (Radford, 1998).



Figure 3E.10: Students Who Had Ever Been Tested For A Sexually Transmitted Infection (%)

One of the barriers to being tested for STIs could be embarrassment in seeing a physician or a nurse. Almost one quarter of students in Grade 9 feel embarrassed to see a physician or a nurse if they suspect they have an STI (Figure 3E.11). However, 85% of students in Grade 11 are willing to tell their sexual partner if they had an STI (Figure 3E.12).





Figure 3E.12: Students Who Would Tell Their Sexual Partner If They Had An STI (% Strongly Agree And Agree)

Attitudes towards condom use

Students were asked a variety of questions about their attitudes toward condom use (Figure 3E.13 and 3E.14). Girls had stronger feelings about enforcing condom use. Only 6% of girls in Grade 9 and 10% of girls in Grade 11 agree that they would have sexual intercourse with a partner who did not want to use a condom, compared to 21% of boys in Grade 9 and 23% in Grade 11.

The large majority of students in Grades 9 and 11 state that they intend to use a condom with their sexual partners. Yet almost one-quarter of girls in both grades are too embarrassed to buy condoms; one-quarter would not ask their partners about them using a condom; and over one-fifth do not feel that the availability of a condom is the responsibility of both partners. Between 12% to 18% of boys in both grades are too embarrassed to buy condoms, close to 30% would not ask a partner about using a condom; and between 20% to 25% do not feel that the availability of a condom is the responsibility of both partners. Boys are more likely than girls to perceive the use of condoms as interfering with sexual pleasure.

There is a need for enhanced communication between adolescents about contraceptive and protection practices. Adolescents who feel comfortable communicating with their partners are more likely to use condoms than those who do not feel comfortable (Shoop & Davidson, 1994). Although some studies have found girls to be less likely to negotiate condom use, (Murphy 1998; Shrier et al., 2001), three-quarters of girls in our sample claim that before having sexual intercourse they would ask their partners about using condoms. This indicates a sense of control in relationships and the ability to choose safer sexual behaviour.

By the time they are in Grade 11, almost 90% of boys are confident about using a condom properly compared to only 50% in Grade 9. Confidence about condom use does not change considerably across grades for girls (between 70% for Grade 9 girls to 77% for Grade 11 girls). It is interesting that more girls than boys in Grade 9 feel confident in using a condom. This suggests that these girls had an earlier initiation into sexual intercourse, or that they engage in sexual intercourse with male partners who are older and more confident in using condoms.

Figure 3E.13: Intentions And Attitudes About Condom Use, Grade 9 (% Strongly Agree And Agree)



Figure 3E.14: Intentions And Attitudes About Condom Use, Grade 11 (% Strongly Agree And Agree)



Males Females

Sexual orientation and attitudes toward condom use

Although most of the students are not yet sexually active, their current attitudes may influence the precautionary measures they take to avoid HIV/AIDS and STIs in the future. Refer to Figures 2B.11 and 2B.12 (Chapter 2), less than 2% of males and less than 3% of females in both grades indicate being homosexual or bisexual. As such, relationships examined for the non-heterosexual students need to take into consideration the smaller numbers in these groups.

Attitudes towards condom use were assessed among Grade 9 and 11 students to determine whether these attitudes differed by sexual orientation. Among boys, homosexual or bisexual students in Grade 11 were less likely to agree with the statement "I think condoms interfere with sexual pleasure." Girls who are attracted to girls, or to both boys and girls, are more likely to agree with this statement than girls who are attracted to boys (Figures 3E.15 and 3E.16).

Figure 3E.15: "I Think Condoms Interfere With Sexual



■Grade 9 ■Grade 11

Heterosexual boys are more likely to feel confident in the use of condoms than homosexual or bisexual boys. For girls, those who are attracted to boys and those who are attracted to girls or to both boys and girls are similar in the proportion who are confident in the use of condoms (Figures 3E.17 and 3E.18).





Among Grade 11 boys, those of homosexual or bisexual orientation are slightly more likely to agree with the statement "I would have sexual intercourse with a partner who didn't want us to use a condom" than heterosexual boys (Figures 3E.19 and 3E.20). However, no difference is observed among Grade 9 boys. Similarly, girls of homosexual or bisexual orientation are more likely to agree with the statement than heterosexual girls.



■Grade 9 ■Grade 11



■Grade 9 ■Grade 11

In both grades and genders, heterosexual students are slightly more likely to agree with the statement "I plan to use a condom with my sexual partner(s)" than homosexual or bisexual students (Figures 3E.21 and 3E.22).



■Grade 9 ■Grade 11

Among girls, those of heterosexual orientation are more likely to agree with the statement "Before having sexual intercourse, I would ask my partner about us using a condom" than homosexual or bisexual girls (Figures 3E.23 and 3E.24). However, among boys, no relationship between sexual orientation and agreement with this statement is observed.



Figure 3E.24: "Before Having Sexual Intercourse, I Would Ask My Partner About Us Using A Condom", By Sexual Orientation, Females Only (% Strongly Agree And Agree)



In general, heterosexual students are more likely to agree with the statement "Making sure a condom is available is the responsibility of both partners." An exception occurs among Grade 9 boys, among whom those of homosexual or bisexual orientation are more likely to agree with the statement than heterosexual students (Figures 3E.25 and 3E.26).



Heterosexual Grade 9 boys report greater embarrassment about buying condoms than Grade 9 boys of homosexual or bisexual orientation. Conversely, Grade 11 boys who are bisexual or homosexual are more likely to be too embarrassed to buy condoms than their heterosexual counterparts (Figures 3E.27 and 3E.28). Among girls, embarrassment in buying condoms does not appear to be related to sexual orientation.



In general, heterosexual adolescents report more positive attitudes toward condom use than homosexual or bisexual students. In particular, homosexual or bisexual Grade 11 students show weaker intentions to use condoms, and may thus be at greater risk for negative sexual health outcomes.

Protection from HIV/AIDS

Although, the HIV/AIDS virus may remain undetected for many years before becoming symptomatic, the large majority of students across the grades feel confident that they can protect themselves from getting the virus (Figure 3E.29). Students in Grades 9 and 11 surveyed in 2002 are less worried about contracting HIV/AIDS than the sample of students surveyed in 1989 (Figure 3E.30). This difference is probably due to the vulnerability felt by adolescents during the 1980's and the heightened attention given to HIV/AIDS at the time.

Figure 3E.29: "I Can Protect Myself From Catching HIV/AIDS" (% Strongly Agree And Agree)



Males Females

Figure 3E.30: "I Can Protect Myself From Catching HIV/AIDS", By Year Of Survey (% Strongly Agree And Agree)



■1989 ■2002

There may be a link between young people's perception of vulnerability to negative consequences of sexual intercourse and their subsequent use of protective measures. Hingson and colleagues (1990) found that 16 to 19 year olds who worried they could get AIDS were three times more likely to use condoms than those who did not worry. However studies in both Europe and the U.S. examining young people's perception of risk for HIV infection have found that the proportion of youth reporting they were at risk decreased substantially over time (Graham, 1994).

F. Dating and Relationships

Sexual health behaviour needs to be understood within the context of adolescents' dating and romantic relationships. Adolescent heterosexual experiences often occur within a peer group where there are opportunities for group outings and interaction with the other sex, before engaging in paired romantic relationships (Wyndol, 2002).

Teenage relationships have been characterized as serial monogamies of short duration (Kotchick et al., 2001). It is apparent in our sample (Figure 3F.1) that the older students become, the fewer boyfriends/girlfriends they have in a period of time. Over one quarter of Grade 7 and Grade 9 students report having a single boyfriend/girlfriend in the past 12 months, with over 15% reporting multiple relationships. Close to 40% of students in Grade 11 report having only one steady boyfriend/girlfriend over the past 12 months, with only 10% reporting three or more boyfriends/girlfriends.



Figure 3F.1: Number Of Steady Boyfriends/Girlfriends In Past 12 Months (%)







Romantic relationships during adolescence evolve from attractions that are casual and short-lived to ones that are deeper, more committed and affectionate in nature (Nieder & Seiffge-Krenke, 2001; Shulman & Seiffge-Krenke, 2001). Similarly, in the CYSHHAS sample, relationships appear to become more enduring as students grow older (Figure 3F.2). Slightly more boys than girls in Grade 7 report having a steady boyfriend/girlfriend. This changes in Grades 9 and 11 where significantly more girls than boys report having a steady boyfriend/girlfriend. One explanation for this discrepancy is that girls may seek commitment in relationships with older boys who are willing to be involved in more committed and intimate relationships.


Figure 3F.2: Students Who Currently Have A Steady Girlfriend Or Boyfriend (%)

Relationship dynamics

There is a close relationship between the dynamics of communication and decision making and the quality of close relationships (Cupach & Metts, 1991). Only students who were in a relationship at the time of the CYSHHAS survey were questioned about decision making regarding spending time and paying for things when together. As students move from Grade 7 to Grade 11, more boys than girls indicate they are involved in making decisions about how to spend their time (Figures 3F.3 to 3F.5). Although sharing financial responsibility improves from Grades 7 to Grades 9 and 11, one third of girls still report that their boyfriends usually pay for things when out together (Figures 3F.6 to 3F.8).







Figure 3F.4: Boyfriend/Girlfriend Decides How To Spend Time, Grade 9 (%)

■ Males □ Females





Males D Females



Figure 3F.6: Boyfriend/Girlfriend Pays For Things When Together, Grade7 (%)



Figure 3F.7: Boyfriend/Girlfriend Pays For Things When Together, Grade 9 (%)





Figure 3F.8: Boyfriend/Girlfriend Pays For Things When Together, Grade 11 (%)

Comfort with physical sexual contact is clearly subject to the different stages of adolescent development. By the time students are in Grade 11, close to 90% of boys and girls in relationships are usually comfortable with their physical contact with partners (Figures 3F.9 to 3F.11).





Figure 3F.10: Feeling Comfortable When Having Physical Contact, Grade 9 (%)



Figure 3F.11: Feeling Comfortable When Having Physical Contact, Grade 11 (%)



Discrepancies in power and responsibility within a relationship are often linked to a higher incidence of nonconsensual sexual intercourse. More male and female students in Grade 11 report having sex when they did not want to, compared to Grade 9 students, although girls in both grades are more likely to be the ones having sex unwillingly (Figure 3F.12).



Figure 3F.12: Students Who Had Sex When Did Not Want To (% Strongly Agree And Agree)

Of girls in Grades 9 and 11 whose boyfriends usually decide how to spend their time together, one third report being pressured to have sex when they did not want to (Figure 3F.13). Similarly, of girls in Grades 9 and 11 whose boyfriends usually decide how to spend their time together, one fifth report having had sex when they did not want to (Figure 3F.14).



Figure 3F.13: Students Who Have Been Pressured To Have Sex, By Who (Boyfriend/Girlfriend) Decides How To Spend Time, Grades 9 And 11 (%)





Dating

Girls are often considered to be more reserved when it comes to asking a boy out on a date and are conventionally viewed as having a passive role in the initiation of dating (Jackson, Jacob, Landman-Peeters, & Lanting, 2001). However, in the CYSHHAS sample, most students agree it is acceptable for a girl to take the initiative, with no significant gender differences (Figure 3F.15).



Factors influencing knowledge, attitudes and behaviours

Twice as many boys than girls believe it is important to date someone who is popular (Figure 3F.16). A desire for respect or popularity may be associated with an adolescent's decision to engage in sexual intercourse with many partners (Haka-Ikse, 1997). To assess this relationship, we examined the proportion of students with 4 or more sexual partners over their lifetime and determined their responses to the statement "It's important to date someone who is popular in school (Figures 3F.17 and 3F.18)." Grade 11 students who have had 4 or more sexual partners are more likely to agree with this statement. The same relationship is observed for Grade 9 girls, though not for Grade 9 boys.



Figure 3F.16: "It's important To Date Someone Who Is Popular In School" (% Strongly Agree And Agree)

Figure 3F.18: "It's Important To Date Someone Who Is Popular In School", By Number Of Sexual Partners, Grade 11 (% Strongly Agree And Agree) 21 9 Less than 4 partners Males Females

G. Sexual Health Determinants and Sexual Activity

Parent relationships and sexual activity

Relationship with parents may be an influence on adolescent sexual behaviour (Luster & Small, 1994). We used a Parent Relationship Scale that included items such as "My mother/father understands me" and "What my mother/father thinks of me is important." Depending on their score, students in each grade were categorized as having Poor, Average or Good relationships with their parents. We then determined whether the relationship with one's parents was associated with youth sexual activity. In Grade 7, students who have poor relationships with their parents are much more likely to have engaged in the preliminary sexual activity of touching below the waist (Figure 3G.1). However, among Grade 9 students, those who have poor relationships (Figure 3G.2). By Grade 11, the relationship with parents does not appear to be associated with youth sexual activity (Figure 3G.3). This trend indicates that the relationship with one's parents is most strongly associated with sexual behaviour among younger students, and that it becomes less important as students get older.

Figure 3G.1: Preliminary Sexual Activity, By Relationship With Parents, Grade 7 (% Have Engaged







Figure 3G.3: Sexual Activity, By Relationship With Parents, Grade 11 (% Have Had Sexual Intercourse)



Disability and sexual activity

Youth with disabilities are at greater risk for negative health outcomes than their peers (Blum et al., 2001). The CYSHHAS data were examined to determine whether students with chronic illnesses or learning disabilities were as likely as their peers to engage in sexual activity. In Grade 7, girls with a chronic illness are more likely to have engaged in the preliminary sexual activity of touching below the waist, although the reverse is true for boys (Figure3G.4). Grade 9 and 11 male students who report a chronic illness are more likely to have had sexual intercourse than those students who do not have a chronic illness (Figure 3G.5).



In all three grades, students who report a learning disability are more likely to be sexually active or to engage in preliminary sexual activity (Figures 3G.6 to 3G.8). Overall, disability and chronic illness may predispose students to greater sexual health risks.

Figure 3G.6: Preliminary Sexual Activity, By Learning Disability, Grade 7 (% Have Engaged In Touching Below The Waist)



■ Learning disability ■ No learning disability





■ Learning disability ■ No learning disability





■ Learning disability ■ No learning disability

School attachment, sexual activity and risk-taking

Low achievement in school, negative attitudes toward school and low educational aspirations have all been reported as predictors of early initiation to sexual activity (Taylor-Seehafer & Rew, 2000). It has been suggested that youth who have poor prospects for higher education may feel that there is less incentive to avoid various risks (Luster & Small, 1994). However, it is also conceivable that adolescents who engage in risky behaviour may develop a poorer attitude towards school, and consequently have a reduced interest in academic goals or achievement (Schvaneveldt et al., 2001).

We made use of a School Attachment Scale that includes items such as "My teachers treat me fairly" and "Our school is a nice place to be." Depending on their score, students in each grade were categorized as having Poor, Average or Good attachment to their school. We then determined whether school attachment was associated with sexual activity or sexual risk-taking.

Among Grade 9 students, those with poor school attachment are slightly more likely to report having had sexual intercourse "A few times" or "Often" than those with good school attachment (Figures 3G.9 and 3G.10).









Among Grade 11 girls, the difference in sexual activity between those with poor and good school attachment is even more apparent. Only 20% of Grade 11 girls with good school attachment report having had sexual intercourse "Often," while 64% report they have never had sexual intercourse. In contrast, among those with poor school attachment, 35% have had sexual intercourse "Often" and 43% have not had intercourse (Figure 3G.11). Grade 11 boys exhibit a similar pattern, with poor school attachment linked to more frequent sexual intercourse (Figure 3G.12).

Figure 3G.11: Students Who Report Having Had



■Never ■Once ■A few times ■Often







School attachment was also examined in conjunction with sexual risk-taking behaviours such as having multiple partners and failing to use a condom (Figures 3G.13 and 3G.14). In general, sexual risk-taking appears to be associated with poor school attachment, particularly among boys. Only 18% of boys with poor school attachment exhibit no sexual risk behaviours, while 47% exhibit multiple risk behaviours. As school attachment increases, so does the proportion of youth who do not engage in sexual risk behaviours. Among those with average school attachment, 26% do not engage in any sexual risk behaviours, while the proportion among those with good school attachment is even higher (36%).

Among girls, those with poor school attachment are most likely to exhibit multiple sexual risk behaviours. However, those with average and good school attachment are comparable in terms of their level of risk-taking behaviours.



Figure 3G.13: Students In Sexual Risk Taking Within The Three School Attachment Levels, Grade 9 And 11 Males (%)

■No risk behaviours ■One risk behaviour ■More than one risk behaviour

Figure 3G.14: Students In Sexual Risk Taking Within The Three School Attachment Levels, Grade 9 And 11 Females (%)



■No risk behaviours ■One risk behaviour ■More than one risk behaviour

Peer influence and sexual activity

To determine the role of peer influence on the decision to engage in sexual activity, Grade 9 and 11 students were asked how many of their close friends have had sex. Students who stated that more than half or all of their friends have had sex appear to be more likely to have had sex themselves (Figures 3G.15 and 3G.16). This pattern occurs among both boys and girls and at both grade levels. Thus, it appears that students who have had sexual intercourse themselves tend to interact with peer groups in which sexual activity is common.



Figure 3G.15: Sexual Activity, By Peer Sexual Activity, Grade 9 (% Have Had Sexual Intercourse)

Figure 3G.16: Sexual Activity, By Peer Sexual Activity, Grade 11 (% Have Had Sexual Intercourse)



Self-esteem and sexual activity

Responses to the CYSHHAS self-esteem items (see Chapter 2) were compared between students who have had sexual intercourse and those who have not. Among all students, there do not appear to be consistent differences in positive self-esteem between those who have had sexual intercourse and those who have not (Figures 3G.17 to 3G.20). However, among Grade 9 girls, those who have had sexual intercourse were more likely to agree with the statement "I am often sorry for the things I do" (Figure 3G.18), indicating a sense of guilt.



Figure 3G.17: Self-Esteem Statements, By Sexual Activity, Grade 9 Males (% Strongly Agree And Agree)

■ Have had sexual intercourse ■ Have not had sexual intercourse

Figure 3G.18: Self-Esteem Statements, By Sexual Activity, Grade 9 Females (% Strongly Agree And Agree)



■ Have had sexual intercourse ■ Have not had sexual intercourse



Figure 3G.19: Self-Esteem Statements, By Sexual Activity, Grade 11 Males (% Strongly Agree And Agree)

■ Have had sexual intercourse ■ Have not had sexual intercourse

Figure 3G.20: Self-Esteem Statements, By Sexual Activity, Grade 11 Females (% Strongly Agree And Agree)



■ Have had sexual intercourse ■ Have not had sexual intercourse

For Grade 7, a similar analysis was carried out to examine differences in self-esteem related to the preliminary sexual activity of touching below the waist. Grade 7 girls who have engaged in touching below the waist are

more likely to have negative self-esteem, which is particularly evident in responses to the statement "I would change how I look if I could" (Figure 3G.22). There are no similar differences in self-esteem for Grade 7 boys (Figure 3G.21).



Figure 3G.21: Self-Esteem Statements, By Preliminary Sexual Activity, Grade 7 Males (% Strongly Agree And Agree)

■ Have engaged in touching below the waist ■ Have not engaged in touching below the waist

Figure 3G.22: Self-Esteem Statements, By Preliminary Sexual Activity, Grade 7 Females (% Strongly Agree Or Agree)



Have not engaged in touching below the waist

We also examined whether there was a relationship between self-esteem and condom use at last intercourse. Grade 9 boys who did not use a condom at last sexual intercourse are more likely to agree with the negative self-esteem statement "I would change how I look if I could" (Figure 3G.23). Grade 9 girls who did not use a condom at last sexual intercourse are more likely to agree with both negative self-esteem statements (Figure

3G.24). Grade 11 students who used a condom are slightly more likely to agree with the positive self-esteem statements as compared to those who did not use a condom (figures 3G.25 and 3G.26).



Figure 3G.23: Self-Esteem Statements, By Condom Use, Grade 9 Males (% Strongly Agree And Agree)

Figure 3G.24: Self-Esteem Statements, By Condom Use, Grade 9 Females (% Strongly Agree Or Agree)



Did use condom at last sexual intercourse Did not use condom at last sexual intercourse



Figure 3G.25: Self-Esteem Statements, By Condom Use, Grade 11 Males (% Strongly Agree Or Agree)

Did use condom at last sexual intercourse Did not use condom at last sexual intercourse

Figure 3G.26: Self-Esteem Statements, By Condom Use, Grade 11 Females (% Strongly Agree Or Agree)



Did use condom at last sexual intercourse Did not use condom at last sexual intercourse

Alcohol, drugs and condom use

Because the use of alcohol and/or drugs is known to impair judgment, we examined whether condom use might be affected by the use of these substances prior to intercourse (Figure 3G.27). Among boys, almost 75% used condoms regardless of using alcohol/drugs. However, only one half of the girls used condoms if they had used alcohol/drugs prior to sex. Therefore, girls who use alcohol or drugs regularly may be more susceptible to unplanned pregnancy and sexually transmitted diseases.



Did use alcohol/drugs at last sexual intercourseDid not use alcohol/drugs at last sexual intercourse

Sexual risk-taking

Those youth who engage in risky sexual behaviours, such as use of alcohol/drugs prior to sex, inconsistent use of contraception, multiple sexual partners, and lack of protection against STIs, put themselves at the greatest risk for negative health outcomes such as unplanned pregnancy, STI contraction, exploitation and abuse. Based on these four risk behaviours, we created a sexual risk-taking scale to determine the characteristics of adolescents who engage in sexual risk behaviours. Any student who engaged in two or more sexual risk behaviours was considered to be a "risk-taker."

Sexual risk-taking was first examined in conjunction with the four self-esteem statements described above (Figures 3G.28 to 3G.35). In general, sexual risk-taking appears to be somewhat associated with a lack of self-esteem, particularly among girls. For example, among Grade 11 girls, 78% of those who were not risk-takers agree with the statement "I have confidence in myself," whereas only 59% of risk-takers agree (Figure 3G.31). Among Grade 9 girls, 70% of risk-takers report that they are often sorry for the things they do, while the proportion among those not taking risks is only 55% (Figure 3G.32). Similarly, risk-taking Grade 9 and 11 girls are more likely to agree with the statement "I would change how I look if I could".



Figure 3G.28: "I Like Myself", By Sexual Risk-Taking,

■ Males ■ Females





■ Males ■ Females





■ Males ■ Females



■ Males ■ Females

Figure 3G.32: "I Am Often Sorry For The Things I Do", By Sexual Risk-Taking, Grade 9 (% Strongly Agree And Agree)





Figure 3G.33: "I Am Often Sorry For The Things I Do", By Sexual Risk-Taking, Grade 11 (% Strongly Agree And Agree)



■ Males ■ Females



Engaging in risky sexual behaviours may be related to the amount of time spent partying. Grade 9 and 11 boys and girls who are risk-takers are more likely to spend time partying than those who are not risk-takers (Figures 3G.36 and 3G.37).



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Figure 3G.37: "Most Of My Spare Time Is Spent Partying", By Sexual Risk-Taking, Grade 11 (% Strongly Agree And Agree)

Engaging in sexual risk behaviours increases the chance of contracting HIV/AIDS. As described earlier, eighteen knowledge statements regarding HIV/AIDS and other STIs were asked of students in Grades 9 and 11, and each student was classified as having a high or low score. We examined the data to determine if a relationship existed between knowledge of HIV/AIDS and sexual risk-taking. Among Grade 9 students, those who are risk-takers are slightly more likely to have a high knowledge score than those who engage in few risk behaviours (Figure 3G.38). This implies that risk-takers are aware of the dangers involved in their behaviours, but that they still choose to engage in them. However, among Grade 11 students, knowledge scores do not appear to be related to risk-taking (Figure 3G.39).



Figure 3G.38: Knowledge Scores, By Sexual Risk-Taking, Grade 9 (% High Scores)



Figure 3G.39: Knowledge Scores, By Sexual Risk-Taking, Grade 11 (% High Scores)

Summary

The information presented in this chapter provides a detailed picture of adolescent sexual behaviour in Canada. Overall, the proportion of students engaging in sexual intercourse has decreased slightly from 1989 to 2002, though the decrease is more significant among boys than girls. Those students who have not had sexual intercourse generally cite lack of readiness or lack of opportunity as reasons for their abstinence, while the concern for negative health outcomes, such as sexually transmitted diseases and unplanned pregnancy, has only minimal effect on their decisions. Relationships with parents, the diagnosis of a learning disability, and membership in a sexually active peer group each appear to be related to an adolescent's decision to engage in sexual intercourse. Of those students who have had sexual intercourse, engaging in risky sexual behaviour is a major concern. In particular, girls with low self-esteem and girls who use alcohol or drugs prior to sex are more likely to exhibit risk behaviours. This information can be used to ensure that future public health intervention strategies, such as awareness or education programs, are targeted to the teenagers who need them most.

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Chapter 4

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

A. Summary

The decisions about sexual activity made during adolescence usually result in establishing sexual behavioural patterns for the future that will affect the risks of pregnancy, sexually transmitted infections, and HIV/AIDS.

This report presents important information for increasing understanding about the sexuality and sexual health of Canadian youth who were enrolled in Grades 7, 9, and 11 (generally ages 12, 14, and 16). Eleven thousand and eighty-two (11,082) students participated in the study; this can be considered to be a very large sample of Canadian students, but is not completely representative of Canadian youth in all jurisdictions. This limitation should be considered when interpreting the findings.

This final chapter highlights the conceptual framework and summarizes the findings of the three major components and related subcategories that were found to have significant influence. Also included in this discussion, where appropriate, is a comparison of the current findings with those from the 1989 Canada Youth and AIDS Study (CYAS). The conclusion section describes both encouraging aspects and worrisome aspects with examples from the data. Implications for policy, education, and future research conclude the chapter.

Conceptual Framework

A framework that included psycho-social-environmental health determinants, sexuality variables, and sexual health concepts guided this study. Subcategories for the components were developed and items about the subcategories were presented in the research questionnaires. For example, psycho-social-environmental health determinants were determined through questions and/or statements about the following: sociodemographic determinants, school experiences, coping skills and self-esteem, risk behaviours, health risk behaviours, family structure and relationships, peers, and health and education services. Sexuality subcategories included relationships/dating, sexual experiences, and HIV/STI/pregnancy protection. Finally, sexual health was examined through queries about interpersonal relationships, physical well-being, psychological well-being, and resources.

This study reveals that the relationships amongst these major components are interdependent and complex. The following sections highlight the important findings related to each component through a discussion of the relevant related subcategory data.



Health Determinants

The determinants of sexual health assessed in this study included the sociodemographic variables that are linked to sexual and risk behaviours as precursors or enablers of sexual health. Consequently, they are potentially connected to the sexual health of the Canadian adolescent population. The variables comprised the following: sociodemographic determinants, school experiences, coping skills and self-esteem, risk behaviours, health risk behaviours, family structure and relationships, peers, and health and education services. In summary, in relation to health risk behaviours, the relatively rare use of more harmful, addictive drugs among youth and the generally supportive nature of their peers may predict more positive sexual health outcomes for youth in the future. However, the possibility of some very negative sexual health outcomes is suggested by such risk behaviours as the prevalence of alcohol use before having sex and repeated drunkenness, in combination with the reported lack of use of health services to acquire information about STI/HIV/AIDS prevention.

Sexuality and Sexual Health

This study measured students' sexuality and sexual health through inquiry about their knowledge, attitudes, and behaviours. To assess knowledge, the students were asked to respond to statements about transmission, diagnosis, and treatment of HIV/AIDS and other STIs. Their sexual attitudes were examined to gain insight into why they behave in the way that they do. In addition, specific sexual and related behaviours were queried in detail. Because sexual health behaviour needs to be understood within the context of dating and romantic relationships, this context was also studied. The relationship between sexual health determinants and sexual activity was investigated. In particular, parent relationships, disability, school attachment, peer influence, self-esteem, and alcohol, drugs, and condom use were examined to determine whether there were relationships between these determinants and youth sexual activity.

In summary, the students surveyed in the 1989 CYAS were generally more knowledgeable about HIV/AIDS transmission and protection than were the youth who participated in the 2002 study. With respect to diagnosis and treatment, there was very little improvement in knowledge results since 1989. Students in this study who reported the school as a main source of information about HIV/AIDS were slightly more likely to have high knowledge scores, although Grade 7 girls and Grade 11 boys did not show this result. Student responses across the three grades, especially those of the older adolescents, indicated an increase in respect, compared to the 1989 results, for the basic human rights of those living with HIV/AIDS. However, there has been a decrease in youth's feelings of susceptibility to HIV/AIDS since 1989.

The proportions of students in Grades 9 and 11 engaging in deep open-mouth kissing or touching above and below the waist have remained quite consistent since 1989. However, the proportion of youth who have had sexual intercourse has decreased, especially for boys in both grades. Moreover, those students who are having sex tend to be sexually active more frequently. That is, it is more common for sexually active students in 2002 to report having intercourse "often" than in 1989, across both grades and genders (Figures 3D.10 to 3D.13).

Overall, the most common reasons cited by both boys and girls in this study for not having sex were that they were "not ready" or "have not had the opportunity" or "haven't met the right person." As well, only a few students in this study indicated that they were not having sexual intercourse because of the potential negative health outcomes of sex, such as "fear of pregnancy," "fear of contracting HIV/AIDS," or "fear of other STIs."

A quarter of students in Grades 9 and a third of those in Grade 11 reported using both condoms and birth control pills the last time they had sexual intercourse. Very few students reported that they did not use condoms because they did not know how to use them. In general, heterosexual youth reported more positive attitudes

toward condom use than did homosexual or bisexual students. In particular, only homosexual or bisexual Grade 11 male students indicated less intention to use condoms.

Relationships for Grade 11 students appeared to be the most enduring, although slightly more boys than girls in Grade 7 reported having a steady boyfriend/girlfriend. Relationship dynamics related to making decisions about what to do and who pays change between Grade 7 and 11. For example, boys indicated that they were more involved in making decisions about how to spend time, and about one third of the girls reported that their boyfriends usually paid for expenses. Finally, most students agreed that it is acceptable for a girl to take an active role in the initiation of dating.

The relationship between seven health determinants (including parent relationships; disability; school attachment; peer influence; self-esteem; sexual activity; and alcohol, drugs and condom use) on youth sexual activity was examined. Determinants that appeared to influence the decision to engage in sexual intercourse included the following: younger students' relationship with parents, diagnosis of a disability or chronic illness, poor school attachment, and membership in a sexually active peer group. There were inconsistent findings related to self-esteem and sexual activity.

The students, particularly girls, who engaged in risky sexual behaviours had low self-esteem, were often sorry for the things they did, would change how they look if they could, and, similar to boys, were more likely to spend time partying. Among the Grade 9 students, the risk takers had slightly higher knowledge scores.

B. Conclusions

Encouraging Aspects

The findings from a number of health determinants provided encouraging information.

- For example, in relation to sociodemographic variables, it is encouraging that most students who participated in the study perceived their families as possessing average wealth (Figure 2B.1). As well, the health risk behaviour evidence is promising. That is, the students reported relatively rare use of more harmful, addictive drugs.
- In relation to family structure and relationships, it is encouraging that over 75% of the students indicated that they have a "happy home life," although there was a moderate decline from Grade 7 to 11 (Figure 2G.2). The relationship with one's parents is most strongly associated with sexual behaviour especially among younger students (Figures 3G.1 to 3G.3).
- Some of the findings related to health and education services are encouraging. That is, 31% of the Grade 11 boys in the study reported that they would first go to their family doctor if they thought that they had an STI. Also encouraging was that 51% of males and 41% of females in Grade 9 reported that the school was their main source of information about human sexuality/puberty/birth control (Figure 2I.4). Further, 67% of males and 58% of females in Grade 11 students reported that the school was their main source of information about HIV/AIDS (Figure 2I.5). These students are slightly more likely to have high knowledge scores, although Grade 7 girls and Grade 11 boys did not show this result (Figures 3B.18 to 3B.20). Among Grade 9 and 11 students, those who spent more time learning about HIV/AIDS are more likely to have obtained high knowledge scores (Figures 3B.27 to 3B.29).

The sexuality component was operationalized by asking students about their sexuality knowledge, attitudes about sexuality and sexually related illnesses, sexual experiences, dating relationships, and protective actions against sexually transmitted infections and unwanted pregnancy.

The students' level of knowledge was measured by their responses to a set of statements that included transmission and protection as well as diagnosis and treatment items. Grade 7 students were asked to respond to 8 statements, whereas Grade 9 and 11 students responded to 18 statements. Approximately 50% of the Grade 7 students responded to at least half of the statements correctly. More than 60% of the Grade 9 students responded correctly to at least 8 statements, whereas 87% of the Grade 11 students responded correctly (Figures 3B.19 and 3B.20).

- Students were requested to report on the type and frequency of their sexual behaviour or activity. The results are encouraging. Although students engaged in deep (open-mouth) kissing, touching above and below the waist, oral sex, and sexual intercourse, the proportions of students engaging in these activities has remained quite consistent since 1989 (Figures 3D.6 to 3D.8). However, slightly fewer students are having sexual intercourse, but those who are, tend to be sexually active more frequently (Figures 3D.10 to 3D.13). The three most common reasons cited for not having intercourse were "not ready", "have not had the opportunity", and "haven't met the right person" (Figures 3D.14 and 3D.15). The two most common reasons cited by those who are sexually active for having intercourse were "love of the person" and "curiosity/experimentation" (Figures 3D.16 and 3D.17), which is an encouraging finding.
- The data on HIV/AIDS and STIs protection yielded encouraging results. For example, very few students admitted that they did not use a condom because they did not know how (Figures 3E.3 and 3E.4). In addition, between 25% of Grade 9 students and 30% of Grade 11 students reported using both the birth control pill and a condom the last time they had sexual intercourse (Figures 3E.1 and 3E.2).
- Close to 90% of Grade 11 boys and girls in relationships reported usually being comfortable with the physical contact with their partners (Figure 3F.9). This implies that physical contact is with the consent of both partners, which is promising for the development of future relationships.
- The School Attachment Scale, based on three items as outlined on page 111, was used to score student responses and categorize students as having poor, average, or good attachment to school. Those students, both boys and girls, at all three grade levels who reported good school attachment reported having sexual intercourse fewer times than did those who had poor school attachment (Figures 3G.9 to 3G.12).

Worrisome Aspects

Although the overall results from this study are encouraging, there are some findings that are worrisome. These distressing examples are identified and then discussed.

- A majority of both Grade 7 girls and boys indicated that teachers are interested in them as persons, and although a majority of Grade 9 and 11 students responded similarly, the percentages were, nonetheless, lower in these higher grades.
- Another health determinant included coping skills and self-esteem, the findings of which seem to be discouraging because confidence levels appear to have dropped since 1989 (Figure 2D.5). In relation to risk behaviours, the amount of bullying behaviour is distressing. That is, between one fifth and one third

of all the students experienced being made fun of for the way that they look or talk, and/or they experienced sexual jokes, comments, or gestures at least once over a two-month period (Figures 2E.1 to 2E.4).

- Health risk behaviours are revealed through the prevalence of alcohol use and repeated drunkenness that was reported (Figure 2F.4), and these findings create concern. In addition, one-fifth of Grade 9 and one-third of Grade11 students reported that more than half of their close friends use drugs to get stoned (Figure 2H.5).
- The evidence about peers presented some worrisome information. That is, significant numbers of students identified partying and engaging in rebellious activities as ways that persons their age become popular at school (Figures 2H.1 and 2H.2).
- Some of the findings related to the services of health and education raise concern. That is, 32% of the Grade 11 girls in the study reported that they would first go to their friends if they thought that they had a sexually transmitted disease, and only 17% said that they would first go to their family doctor (Figure 2I.1). Fewer than 3% of girls and 1% of boys visited doctors for testing/treatment of sexually transmitted infections in the past 12 months. Furthermore, 12% of boys and 16% of girls in Grade 11 did not know where young people would most likely go to get condoms (Figure 2I.3). In relation to education, it is very alarming that 27% of Grade 7 and 14% of Grade 9 and 11 students had not received any instruction about HIV/AIDS over the last two years (Figure 2I.8). Equally disturbing is that 17% of Grade 7 students, 8% of Grade 9 students, and 11% of Grade 11 students reported that they had not received any instruction about human sexuality/puberty/birth control over the past two years (Figure 2I.6). Some sexuality-related issues are cause for concern.
- In relation to specific knowledge items, less than half, or 40%, of the Grade 9 students and slightly more than half, or 53%, of the Grade 11 students knew that Vaseline is not a good lubricant to use with condoms. As well, similar proportions knew that men who have unprotected sex with men increase the risk of getting HIV/AIDS. Furthermore, a quarter of the Grade 9 and a third of the Grade 11 students knew that the risk of HIV infection is not higher with vaginal sex than with anal sex. Equally worrisome is that some students had the misconception that there is a vaccine available to prevent HIV/AIDS (Figures 3B.1 and 3B.2), and approximately 66% of Grade 7 students (Figure 3B.7) and 50% of Grade 9 students did not know that there is no cure for HIV/AIDS (Figure 3B.3). It is distressing that students who participated in this study have generally lower levels of knowledge than do those who took part in the 1989 study. Similarly, those students who cite television/movies or the Internet as their main source of HIV/AIDS information are likely to have low knowledge scores (Figures 3B.23 and 3B.25). Among Grade 7 students, a greater number of hours of instruction do not appear to influence knowledge scores (Figure 3B.27).
- As noted previously, students' attitudes were measured by their responses to a set of statements. Between 45% and 50% of students in all three grades reported that they worried about contracting an STI or HIV/AIDS (Table 3C.1), which is a decrease in the feelings of susceptibility since 1989 (Figure 3C.1).
- Few students who are not yet sexually active choose "fear of pregnancy" or "fear of HIV/AIDS and other STIs" as reasons for their choices. This is worrisome in that deleterious outcomes have a minimal impact on decisions to become sexually active.

- Having more partners increases the likelihood of pregnancy among girls who are sexually active, and 46% of girls, excluding Grade 7 girls, who have been pregnant, reported having four or more sexual partners (Figure 3E.7). Similarly, amongst both girls and boys, those who had multiple partners reported having an STI (Figure 3E.9). Twenty-two per cent (22%) of girls and 24% of boys in Grade 9 and 16% of males and females in Grade 11 reported that they would be too embarrassed to see a doctor or nurse if they had an STI (Figure 3E.11). However, a large majority, from 77% to 88%, of both girls and boys in both Grades 9 and 11 would tell their partners (Figure 3E.12).
- It is distressing that in all three grades, students who report a learning disability are more likely to be sexually active or engage in preliminary sexual activity. Overall, disability and chronic illness may predispose students to greater sexual health risks (Figures 3G.6 to 3G.8).

C. Implications

Introduction

Adolescents require a strong foundation of information, education, and supports to develop and continue to develop into healthy sexual people as they journey into adulthood. Sexuality and sexual health are complex concepts to define and equally complicated to operationalize.

However, this study reports important conclusions including both the encouraging and distressing aspects gleaned from the data, that is; what is working and what is not working. This information formed the implications or most promising practices for policy makers and implementers, educators and educational programs or interventions, medical professionals and related personnel, and future research.

Policy Makers and Implementers

This study strongly suggests that adolescent sexual health is an indispensable component of health development and thus an important investment for Canada. Consequently, policy makers and implementers across Canada within local, regional, provincial, territorial and national governments need to take the lead in ensuring that Canadian adolescents have access to education, information, services, and communities that will enable them to develop into sexually healthy adults. For example, the federal ministry of health and the Council of Ministers of Education (CMEC) could provide an outline of knowledge, skills, and attributes that are the standard criteria for each grade level from kindergarten to Grade 12. This is similar to what CMEC has done in science and would guide curriculum and instruction as well as teacher preservice education, inservice or professional development, and parent education.

Educators and Educational Programs or Interventions

This study has implications for educators and educational programming, whether it is delivered in schools or agencies within the community, or in both sites. Educators and educational initiatives need to address and/or continue to address the following concerns:

- the comprehensive framework of sexual health, including the health determinants, knowledge, attitudes, and behaviours; as well as a focus on the quality of life provided by healthy sexuality;
- content that extends beyond the basics into issues; for example, the reasons for using a condom are important, but a discussion about why some adolescents will not wear a condom is equally relevant;

- an awareness and understanding of personal sexual attitudes because beliefs sometimes influence behaviour more than does knowledge;
- a respect for and consideration of parents' knowledge, attitudes, and beliefs; and
- a respect for and consideration of those infected with or living with HIV/AIDS.

Medical Professionals and Related Personnel

The findings in this study affect the medical profession, as it is vital to health services, which are resources that adolescents need to access. Doctors, nurses and clinic personnel need to address and/or continue to address the following concerns:

- the information that adolescents are being given on HIV/AIDS, STIs and human sexuality requires an examination to determine if it age appropriate, comprehensive, and non-judgmental;
- the approachability of the health care professionals who are offering services to adolescents;
- the accessibility of the health care site including its location, parking facilities, hours of operation and the cost for services; and
- the level of confidentiality.

Future Research

Finally, there is a need for research to be conducted with the following adolescent populations to provide detailed information regarding the most appropriate content for, and delivery of, sexuality education programs for the groups:

- homosexual and bisexual youth
- youth who are unsure of their sexual orientation
- youth with learning disabilities and mobility impairments
- youth with chronic illnesses
- youth who are abstainers from sexual activity, and
- youth who are sexually active.

Factors influencing knowledge, attitudes and behaviours

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