



**ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH IN CANADA:
A REPORT CARD IN 2004**

SIECCAN

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INTRODUCTION

The promotion of adolescent sexual health involves equipping young people with the relevant knowledge, motivation, and behavioural skills to enhance sexual health and avoid sexual health related problems (Fisher & Fisher, 1998; Health Canada, 2003). A broad conceptualization of adolescent sexual health implies attention to a wide range of issues including sexual attitudes, sexual behaviours, and the personal and social factors that influence them. The sexual health indicators used in this document are minimalist in scope, focusing on epidemiological and behavioural indicators related to the avoidance of negative sexual health outcomes such as unintended pregnancy and sexually transmitted infections (STI). Identifying trends in these outcomes as well as the behaviours that contribute to the direction of these trends (e.g., contraceptive use, number of sexual partners) can provide health care providers and educators with key points of reference for addressing the sexual health of adolescents. However, readers should bear in mind that the avoidance of negative outcomes is only part of a comprehensive picture of adolescent sexual health which also includes positive outcomes such as non-exploitive sexual satisfaction and rewarding relationships (Health Canada, 2003).

In order to provide an up-to-date national picture of adolescent sexual health in Canada as it applies to the avoidance of negative sexual health outcomes, this report summarizes trends in Canadian teen pregnancy, abortion, and birth rates for the years 1974 to 2000 and Canadian teen chlamydia rates for the years 1991 to 2002. Published data from the

Canadian Youth, Sexual Health and HIV/AIDS Study (Boyce, Doherty, Fortin, & Mackinnon, 2003) are used to compare key indicators of adolescent sexual health behaviour (ever having intercourse, number of sexual partners) measured in 1988 and 2002. In addition, the Boyce et al. (2003) data are used to identify age-related trends in adolescent contraceptive and safer sex behaviour. Corroborative data from other studies are included throughout this report.

These data are presented and discussed here for the purposes of identifying priorities for adolescent sexual health care provision and sexual health education. National and large sample data are useful for drawing general conclusions about the status of adolescent sexual health in Canada. Such findings can and should be used to inform policy development and clinical/educational practice. However, it is important to recognize that Canadian adolescents are a diverse population along a wide range of domains including sexual and reproductive health. This diversity is often not captured by national or large sample data sets. For example, some adolescents may engage in no or sporadic sexual behaviour while others may be highly sexually active with multiple partners. Appendix 1 provides a brief guide to conducting a clinical sexual health risk assessment with adolescent patients and clients that recognizes this diversity and emphasizes the importance of dual protection against unintended pregnancy and STI.

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PART A: TEEN PREGNANCY RATES, ABORTION RATES, AND BIRTH RATES

TEEN PREGNANCY RATES

Although there are no precise figures, it is generally assumed that most teen pregnancies, particularly among younger teens, are unintended (Henshaw, 1998). Trends in teen pregnancy rates are, therefore, a very significant marker of female adolescent sexual and reproductive health not only because a pregnancy can have implications for a young woman's health and well-being but also because trends in teen pregnancy rates can be a fairly direct indicator of young women's opportunities and capacity to control their sexual and reproductive health.

Statistics Canada began collecting national data on teenage pregnancy in 1974. Although there was a period from the mid 1980s to the mid 1990s in which the reported number of teen pregnancies increased in Canada, the overall, long-range trend indicates that rates of teen pregnancy declined substantially during the last quarter of the twentieth century. (It should be noted that teen pregnancy rates are calculated by adding together the reported number of live births, still births, and abortions). In total, the number of pregnancies among 15- to 19-year-old women declined from 61,242 in 1974 to 38,600 in 2000.

The pregnancy rate among 15- to 19-year-olds declined from 53.7 per 1,000 in 1974 to 41.2 in 1988 and then

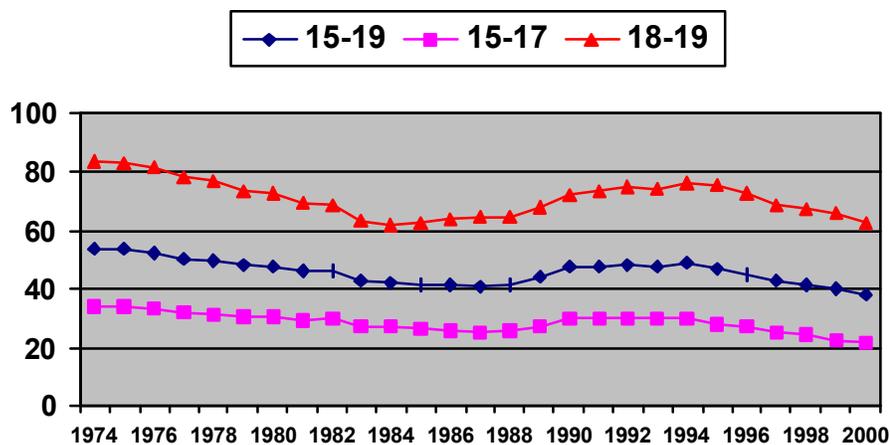
rose to 48.8 in 1994 and then declined in each subsequent year to 38.2 in 2000 (Figure 1). A similar pattern was seen in 15- to 17-year-olds with a teen pregnancy rate of 33.8 per 1,000 in 1974 and 21.6 in 2000. Among 18- to 19-year-olds over the same period, the rate declined from 83.7 per 1,000 to 62.8.

TEEN BIRTH RATES AND ABORTION RATES

Figure 2 illustrates the trends in the Canadian live birth and abortion rates among 15- to 19-year-old women between 1974 and 2000. Between 1974 and 2000, the live birth rate among 15- to 19-year-old women in Canada fell from 35.6 per 1,000 in 1974 to 17.2 in 2000, a decline of 52%. If 15- to 17-year-olds are looked at separately, the live birth rate fell from 19.7 per 1,000 in 1974 to 8.9 in 2000, a decline of 55% (data not shown).

Within the context of an overall decline in the teen pregnancy rate during the past quarter century, in 1997, as the birth rate continued to decline but the abortion rate remained relatively steady, abortion became the most common outcome of teenage pregnancy (Figure 2). In other words, the increasing proportion of teen pregnancies ending in abortion is a function of a pronounced decline in the birth rate, not an increase in the teen abortion rate. For example, between 1995 and 2000, the teen birth rate declined from 24.3 to 17.2 per 1,000 whereas, the abortion rate remained largely unchanged declining from 21.1 in 1995 to 20.2 in 2000.

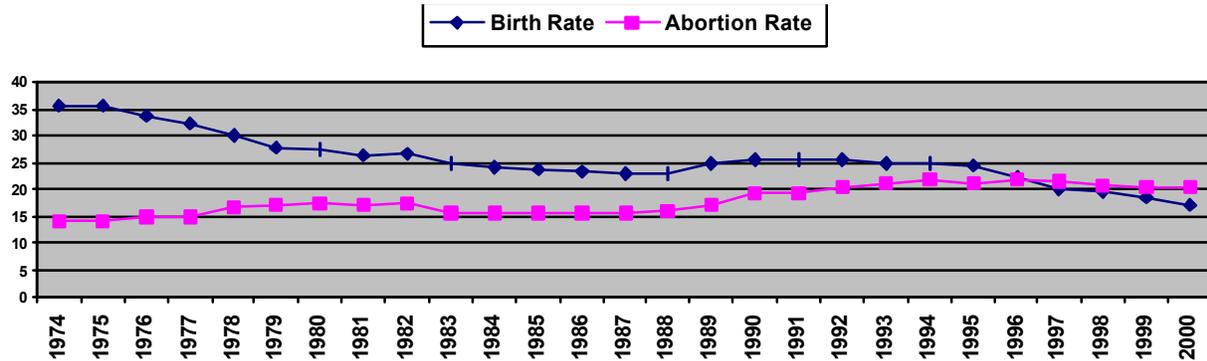
Figure 1 Teen Pregnancy Rates per 1,000 15- to 19-, 15- to 17-, 18- to 19-Year-Olds, Canada, 1974-2000



Source: Dryburg (2000); Statistics Canada (2003)



Figure 2 Teen Birth and Abortion Rates per 1,000 15- to 19-Year-Olds, Canada, 1974-2000



Source: Dryburg (2000); Statistics Canada (2003).

PROVINCIAL/TERRITORIAL TEEN PREGNANCY RATES

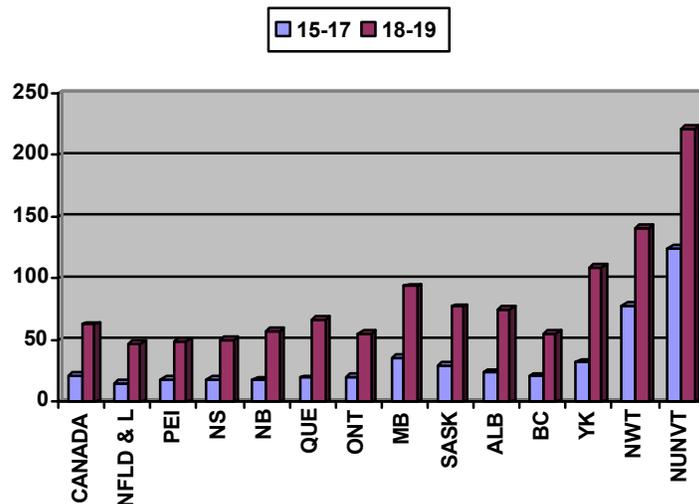
Figure 3 provides a provincial/territorial comparison of pregnancy rates for 15- to 17- and 18- to 19-year-olds for the year 2000. Similar to previous years, teen pregnancy rates in 2000 were higher in the territories and in the prairie provinces and varied considerably across the country. For 15- to 19-year-olds, 6 provinces had teen pregnancy rates below the national average of 38.2: Newfoundland and Labrador (28.5), Prince Edward Island (30.4), Nova Scotia (31.5), New Brunswick (33.4), Ontario (34.1), and British Columbia (35.5). Four Provinces and the three Territories had rates above the national average: Quebec (39.7), Alberta (44.5), Saskatchewan (48.2),

Manitoba (58.7), Yukon (58.7), Northwest Territories (103.7), and Nunavut (161.3).

TEENAGE PREGNANCY: ASSESSMENT

It is important not to generalize about the potentially negative outcomes of teenage childbearing (see Bissell, 2000). For example, teenage pregnancy and childbearing are not necessarily perceived as problematic in some ethno-cultural communities, including northern Aboriginal and First Nations communities. Nevertheless, given the assumption that most teen pregnancies, particularly among younger teens (e.g., 15- to 17-year-olds), are unintended, a reduction in teen pregnancy rates can be realistically

Figure 3 Teen Pregnancy Rates per 1,000 15- to 17-, 18- to 19-Year-Olds, by Province/Territory, Canada, 2000



Source: Statistics Canada (2003).



seen as an indicator that an increasing number of teenage women in Canada are exercising active control of their reproductive health. The substantial reduction in teen pregnancy rates during the mid to late 1990s and early into the next decade is particularly striking considering that over the same time period, the percentages of both younger and older teens who were sexually active remained relatively stable (see below). This suggests that increasing numbers of teens are choosing not to become pregnant and that they are increasingly likely to take effective measures to prevent an unintended pregnancy.

There are a wide variety of determinants that likely contribute to the direction of teen pregnancy rates in Canada, including socio-economic factors, access to user-friendly reproductive health services, and access to high quality sexual health education (Maticka-Tyndale, McKay, & Barrett, 2001). At the behavioural level, it is likely that increased use of oral contraception is responsible for a significant proportion of the decline in teen pregnancy rates in Canada. When used consistently and correctly, the birth control pill is a female controlled method of contraception that prevents pregnancy 99.9% of the time (Hatcher et al., 1998). There is some evidence that birth control pill use among Canadian teens increased between the early and late 1990s, coinciding with a decline in the teen pregnancy rate during the same period. For example, a large sample health survey of British Columbia youth administered in 1992 found that 25% of sexually active teens reported using the birth control pill at last intercourse (McCreary Centre Society, 1993). When the same survey was repeated in 1998, the percentage of teens who reported using the birth control pill at last intercourse had increased to 35% (McCreary Centre Society, 1999), representing a 40% increase in birth control pill use at last intercourse between 1992 and 1998. From 1992 to 1998, the teen pregnancy rate in Canada declined from 48.1 per 1,000 to 41.7. A study that included 1,000 sexually active Grade 10 and Grade 12 students in Regina conducted in 2000, also found that 35% reported using the birth control pill at first intercourse (Hampton, Smith, Jeffery, & McWatters, 2001) suggesting that a sizable number of Canadian youth plan and implement fertility control measures in advance of becoming sexually active.

The correlational data pointing to the role of hormonal contraception in declining teen pregnancy rates in Canada is supported by more direct research from the United States. Although teen pregnancy rates in the U.S. are consistently double or more than the rates in Canada (e.g., in 2000 the rate among 15- to 17-year-olds in the U.S. was 48.2 [Alan Guttmacher Institute, 2004] compared to 21.6 in Canada), the U.S. has also seen a steady decline in teen pregnancy rates. Examination of a wide range of data including successive cycles of the U.S. National Surveys of Family Growth has led researchers to conclude that increased use of long-acting hormonal contraception (i.e. Depo-Provera, Norplant) among sexually active U.S. teens was the most significant factor in contributing to the decline in teen pregnancy rates (Darroch & Singh, 1999). Although use of injectable hormonal contraception appears to be quite low among Canadian teens (Fisher & Boroditsky, 2000), the use of hormonal contraception generally is relatively high in comparison to the U.S. A comparative study of teenage sexual and reproductive behaviour in developed countries (Canada, U.S., U.K., France, Sweden) revealed that in countries where sexually active teens are more likely to rely on hormonal contraception which typically has lower use-failure rates, the teen pregnancy rates are lower (e.g., sexually active teens in Canada are more likely to use hormonal contraception than U.S. teens) (Darroch, Frost, & Singh, 2001).

Available data on teen pregnancy in Canada suggest that over time, sexually active teens have become increasingly successful in avoiding unintended pregnancy. In addition, as a female controlled, safe, and highly effective form of contraception, the birth control pill plays an important role in helping young Canadian women control their fertility and increased use of oral contraception appears to have been a factor in contributing to the decline in teen pregnancy rates. However, as discussed below, recommending hormonal contraception to young women should not come at the expense of stressing the importance of dual protection against both unwanted pregnancy and STI infection for teens and young adults. As demonstrated below, many young people abandon condom use once hormonal contraception is initiated which in turn increases STI risk.



PART B: STI RATES

Sexually transmitted infections (STI) pose a significant threat to the health and well-being of young Canadians. Due to a number of biological, social-developmental, and behavioural factors, STIs disproportionately affect adolescents. For a number of reasons (noted below) this report focuses on chlamydia. However, it should be noted that a range of STI are common among youth. For example, Canadian clinic-based studies suggest that rates of human papillomavirus (HPV), likely Canada's most common STI, are highest (16% to 21%) among women under the age of 25 (Ratnam et al., 2000; Sellors et al., 2000). Gonorrhoea rates in Canada are highest among the 15 to 24 age group and accounted for almost half of all cases in 2000 (Patrick, Wong & Jordan, 2000). Among 15- to 19-year-olds, the Gonorrhoea rate has increased every year from 1997 to 2002, climbing from 51.7 per 100,000 to 71.0 (Health Canada, 2004). Seroprevalence studies of females in B.C. and Ontario suggest that 5% to 7% of 15- to 19-year-olds are infected with herpes simplex virus type 2 (HSV-2) (Patrick, Wong & Jordan, 2000). Although rates of infection with human immunodeficiency virus (HIV) remain low in the general adolescent population, sub-groups of Canadian teenagers are at very high risk for infection (e.g., street youth, gay youth). For example, there is growing concern that young gay men in Canada have become less vigilant in taking consistent HIV risk reduction measures (Hogg et al., 2001).

CHLAMYDIA AS A MARKER FOR ADOLESCENT SEXUAL HEALTH

For several reasons, trends in chlamydia rates provide an accurate and highly relevant indicator of adolescent sexual health in Canada. First, chlamydia is the most common reportable STI in Canada (individual cases of HPV and HSV are not reported to public health authorities). As a result, reported chlamydia rates provide us with the most accurate of available monitors of the magnitude of STI infection in adolescents and of trends in infection rates. Second, chlamydia infection, particularly if it is undetected and therefore untreated, has significant health consequences. It is estimated that 40% to 70% of chlamydial infections are asymptomatic suggesting not only that the actual prevalence of chlamydia is

significantly higher than reported, but also that a high proportion of infections are left untreated (Health Canada, 2000). In 20% to 40% of cases, untreated chlamydia in females progresses to pelvic inflammatory disease (PID) (Cates & Wasserheit, 1991) and PID resulting from untreated STI is a major cause of infertility and ectopic pregnancy as well as debilitating chronic pelvic pain (Macdonald & Brunham, 1997). Chlamydia infection increases the risk of HIV by a factor of 3 to 5 by increasing susceptibility to HIV infection when exposed (Stebin, 2004). Third, prevention of chlamydia is achievable through behavioural measures—namely, consistent condom use. Laboratory studies confirm that latex condoms are impermeable to *Chlamydia Trachomatis* (see Morris, 1993) and prevalence research demonstrates that consistent condom users (condom use 100% of the time) have significantly lower rates of chlamydia than inconsistent condom users (condom use 25% to 75% of the time) (Shlay, McClung, Patnaik, & Douglas, 2004).

TEEN CHLAMYDIA RATES

Data on chlamydia rates in Canada are available for the years 1991 to 2002 (Health Canada, 2004). Figure 4 illustrates the trends in reported chlamydia rates for males and females aged 15 to 19 for the years 1991 to 2002. For the purposes of this analysis, the focus will be on rate data for females because, as Figure 4 indicates, the reported rate for females is many times higher than for males, and females carry the most significant burdens of infection (i.e., infertility, ectopic pregnancy). (Health Canada [2000] notes that since chlamydia became nationally notifiable, females have typically accounted for 75% of reported cases which can be attributed, in part, to better screening and case-finding for females rather than as an accurate reflection of the distribution of cases between males and females. As less invasive methods for screening males become more widely implemented, this gap in the distribution of cases can be expected to narrow.)

As indicated in Figure 4, between 1991 and 2002, the chlamydia rate among 15- to 19-year-old females in Canada rose from 1095.1 per 100,000 to 1378.6, an increase of 25.1%. However, this increase in the female teen chlamydia rate has been far from linear. Although the rate rose from 1991 to 1992, it declined



every year thereafter until 1997. In sum, the rate declined from 1412.1 per 100,000 in 1992 to 971.3 in 1997, a decrease of 45.4%. However, the rate has increased in every subsequent year to 1378.6 in 2002, an increase of 41.9%.

It should be noted that some of the increase in chlamydia rates, particularly among males, is likely due to the introduction of more sensitive and non-invasive Nucleic Acid Amplification Technology (NAAT) in place of enzyme immunoassay for the screening and diagnosis of chlamydia infection. However, as Patrick, Wong, and Jordan (2000) noted four years ago, NAAT testing was implemented in many regions of Canada in 1995/1996 and rates were continuing to increase in those regions up to 2000 and the more recent data available (i.e., 2001, 2002) indicate that the upward trend remains in place.

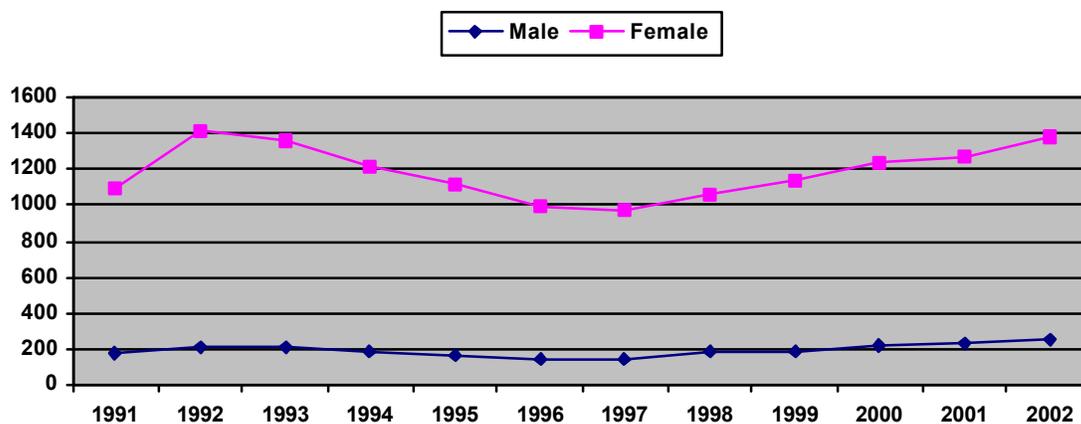
The national data reviewed here clearly indicates that chlamydia infection is common among the general population of adolescent youth in Canada. However, it is important to note that in certain subpopulations the chlamydia rate is even higher. For example, chlamydia rates found in samples of Canadian street youth are almost 9 times higher than in the general youth population (Shields, Wong, Mann et al., 2004). Shields et al. (2004) in their study of street youth in seven Canadian cities found very high chlamydia prevalence rates among females (10.9%) and males (7.3%) as well as Aboriginal youth (13.7%).

Figure 5 illustrates the chlamydia rates for females aged 10-14, 15-19, 20-24, and 25-29. These data clearly indicate that chlamydia rates are significantly higher for the 15-19 age group than for the 10-14 age group, an increase that might be expected as most young people become sexually active during their mid to late teens. However, it is important to note that chlamydia rates remain equally high for the 20 to 24 age group and do not decline until women reach age 25-29. As discussed below, this pattern of persistently high chlamydia rates for Canadian women ranging in age from the mid teens until the mid twenties may partially be the result of patterns of contraceptive use (i.e., the transition from condom to pill) and sexual behaviour (i.e., serial monogamy).

PART C: SEXUAL BEHAVIOUR, CONTRACEPTIVE USE, AND SAFER SEX

Large data set tracking of sexual and contraceptive/safer sex behaviour of Canadian youth is not as consistent or comprehensive as that for pregnancy and reportable STI rates. National data on the sexual behaviour of Canadian adolescents is limited (for review and discussion see Maticka-Tyndale, Barrett, & McKay, 2000). Ideally, regular, consistent replications of nationally representative sexual risk behaviour surveys should be conducted in order to identify priority needs in the provision of adolescent sexual and reproductive health services and education in Canada. For example, although far from

Figure 4 Reported Genital Chlamydia Rates per 100,000 15- to 19-Year-Old Males and Females, Canada, 1991-2002



Source: Health Canada (2004)



comprehensive, in the U.S., the Centers for Disease Control and Prevention conducts a regular bi-annual survey of basic measures of adolescent sexual risk behaviours (Centers for Disease Control and Prevention, 2002).

Previous data sets in Canada such as the 1996 *National Population Health Survey* and the 1995 *General Social Survey* provided data on trends in adolescent sexual behaviour (for a review of these findings, see Maticka-Tyndale, 2001; Maticka-Tyndale, Barrett, & McKay, 2001). For the purposes of this report, the *Canadian Youth, Sexual Health and HIV/AIDS Study* (Boyce, Doherty, Fortin, & MacKinnon, 2003) which includes comparisons with an earlier version of the same study (King, Beasley, Warren, et al., 1988) is used to identify trends in adolescent sexual and contraceptive/safer sex behaviour. Although limited by a lack of uniform sampling, the data from these two studies offer the advantage of enabling a direct comparison of adolescent sexual and contraceptive safer sex behaviours between the data collection years of 1988 and 2002. This provides information that helps to identify trends in adolescent sexual and reproductive health behaviours that are likely to be currently in place. As noted below, several of the trends evident in the Canadian data are also found in the more periodically administered U.S. *Youth Risk Behavior Survey*.

INTERCOURSE EXPERIENCE

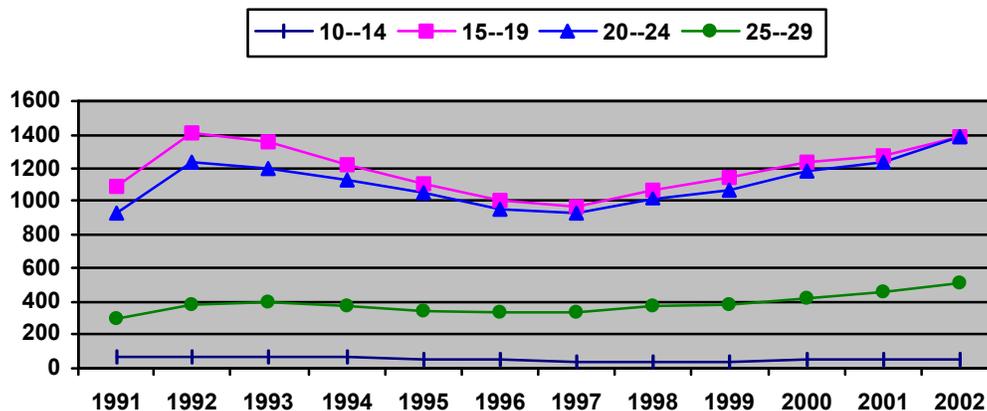
Figure 6 shows the percentages of Grade 9

(approximately age 14) and Grade 11 (approximately age 16) students who reported in the years 1988 and 2002 that they had experienced sexual intercourse at least once (Boyce et al., 2003). For Grade 9 males the percentage who reported intercourse experience declined from 31% in 1988 to 23% in 2002 and for Grade 9 females the percentage declined from 21% to 19%. For Grade 11 students the percentage of males who reported intercourse experience declined from 49% to 40% and for females the percentage remained the same at 46% in both 1988 and 2002. This trend of stable to declining rates of intercourse experience is mirrored in the data from the U.S. *Youth Risk Behavior Survey* conducted bi-annually since 1991 which sampled students in grades 9, 10, 11, and 12. For example, the percentage of U.S. Grade 12 students who reported having had intercourse declined from 66.7% in 1991 to 60.5% in 2001 (Centers for Disease Control and Prevention, 2002).

NUMBER OF SEXUAL PARTNERS

A key measure of sexual risk behaviour, particularly with respect to STI infection, is number of sexual partners. Figure 7 shows the percentage of students in Grade 11 who had ever had intercourse reporting 1, 2, 3-5, or 6 or more lifetime sexual partners in 1988 and 2002 (Boyce et al., 2003). The percentage of male students who reported one lifetime sexual partner increased from 29% in 1988 to 43% in 2002 and the percentage of Grade 11 females reporting one partner increased from 47% to 54%. At the other end of the spectrum, the percentage of male students

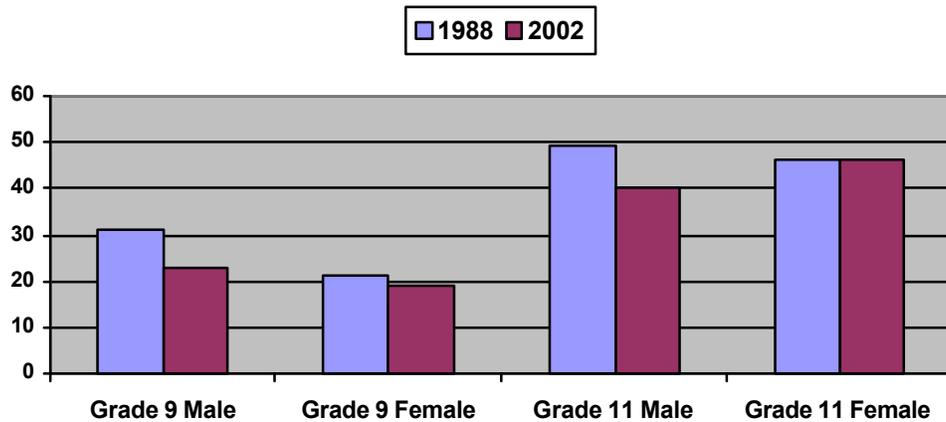
Figure 5 Reported Female Genital Chlamydia Rates per 100,000 in Different Age Groups, Canada, 1991-2002



Source: Health Canada (2004).



Figure 6 Percentage of Canadian Grade 9 and 11 Students who have had Intercourse, 1988, 2002



Source: Boyce et al., (2003)

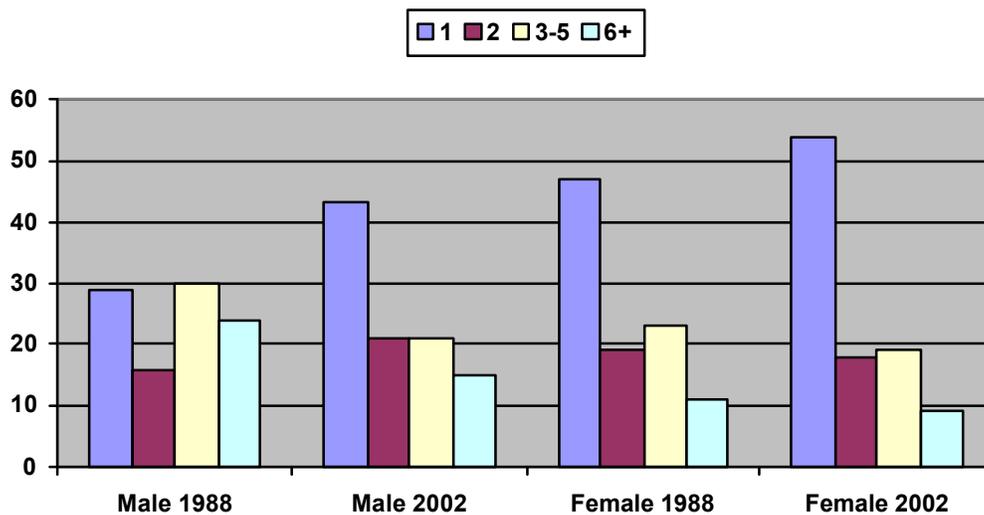
reporting 6 or more partners declined from 24% to 15% and for females the percentage reporting 6 or more partners decreased from 11% to 9%. This trend towards a reduction in lifetime number of sexual partners among adolescents is also evident in the U.S. where, for example, the percentage of Grade 12 students reporting 4 or more lifetime sexual partners decreased from 25.0% in 1991 to 21.6% in 2001 (Centers for Disease Control and Prevention, 2002). With respect to intercourse experience and number of sexual partners, it would appear that patterns of

sexual behaviour have remained stable and, in the case of male adolescents, more cautious. For these basic indicators of adolescent sexual health, the data suggest that contemporary adolescents are at less risk of negative sexual health outcomes than adolescents in previous years.

CONTRACEPTIVE/SAFER SEX BEHAVIOUR

As noted above in relation to the reduction of teen pregnancy rates, there is some evidence indicating an increase in contraceptive pill use among adolescent

Figure 7 Number of Sexual Partners Among Grade 11 Students who have ever had Intercourse, 1988, 2002 (%)



Source: Boyce et al. (2003).



women in Canada during the 1990s. In addition, sexual behaviour data suggest that adolescents are not more likely to experience sexual intercourse than teenagers in previous years and that sexually active teens are more likely to have had fewer lifetime sexual partners than teens in past years. However, despite these indicators suggesting less sexual risk behaviour, chlamydia rates among Canadian teens are increasing. This section reviews age related trends in contraceptive/safer sex behaviour which may partially explain this paradox.

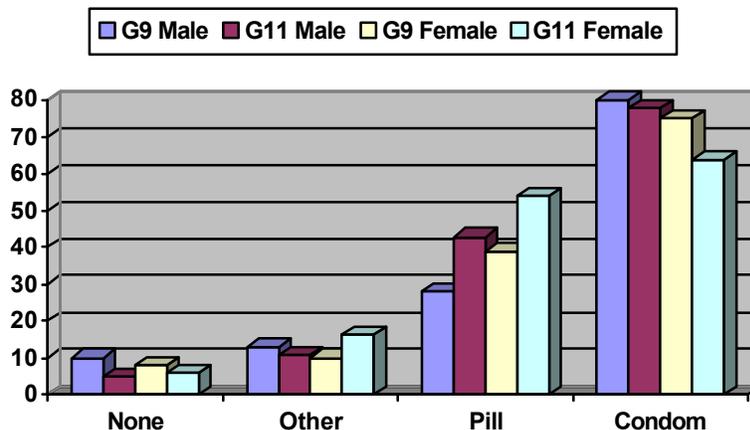
Figure 8 uses data from Boyce et al., (2003) to compare protective measures at last intercourse between Grade 9 and Grade 11 students. The percentage of students who did not use any protection was higher among Grade 9 students (m = 10%, f = 8%) than Grade 11 students (m = 5%, f = 6%) suggesting a slight improvement in overall contraceptive use as teens get older. Pill use was also higher. For example, the percentage of female teens who used the pill at last intercourse was 39% among Grade 9 students and 54% among Grade 11 students. However, between Grade 9 and 11, the percentage of both male and female students who reported using a condom at last intercourse decreased. For example, among female students, the percentage who used a condom at last intercourse was 75% for Grade 9 students and 64% for Grade 11 students. The percentage of students who used both birth control pills and condoms at last intercourse was higher in Grade 11 than Grade 9 for both male and

female students (data not shown). For example, the percentage of female students who reported dual protection at last intercourse was 25% in Grade 9 and 30% in Grade 11. In sum, although the overall percentage of female students who were protected against pregnancy and the percentage who employed dual protection both increased, the percentage of female students who were protected against STI through condom use decreased as students became older. This trend for condom use to decline with age was also evident in the U.S. *Youth Risk Behavior Survey*. For example, for the year 2001, condom use at last intercourse declined with each advancing grade for Grade 9 (67.5%), Grade 10 (60.1%), Grade 11 (58.9%), and Grade 12 (49.3%) (Centers for Disease Control and Prevention, 2002). While these data do not explain the increase in chlamydia rates over time, they do point to a lack of condom use among teens, particularly as they become older, as at least a partial explanation for the persistently high chlamydia rates among 15- to 19-year-old and 20- to 24-year-old young women in Canada (see Figure 5).

FROM CONDOMS TO PILLS AND SERIAL MONOGAMY

Health Canada (1998a) notes that “There is some concern that Canadian adolescents may be putting themselves at unnecessary risk of STD by choosing the oral contraceptive pill (OCP) for prevention of pregnancy while remaining at risk of acquiring an STD through unprotected sex” (p. 1). Using data from Boyce et al. (2003), Figure 9 shows differences in the reasons females in Grades 9 and 11 give for not

Figure 8 Protective Measures at Last Intercourse, Grades 9 and 11 (%)



Source: Boyce et al., (2003)



using condoms at last intercourse. Grade 9 females were more likely to say that they were not expecting to have sex than Grade 11 females (36% vs. 21%). While not expecting to have sex was the most frequently cited of ten possible reasons for not using a condom by Grade 9 females, the two most frequently cited of the ten reasons by Grade 11 females were that they used another method (38%) or that they had a “faithful (safe) partner” (24%).

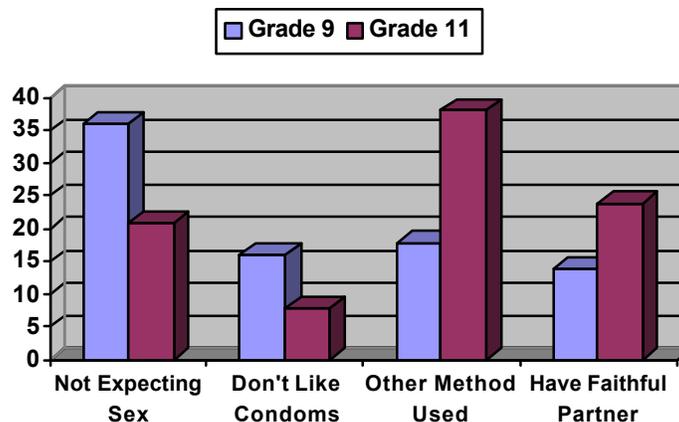
The tendency for older teens to cite using other methods and having a safe, faithful partner in the Boyce et al. (2003) study is consistent with the hypothesis that many teens and young adults view protective measures primarily as a method of pregnancy prevention rather than as a means of STI risk reduction. This tendency is reinforced by the view held by youth and young adults that because they are currently in a monogamous relationship with a partner with whom they are well acquainted that they are not at risk for STI infection. For example, in their study of university students, Misovich, Fisher, and Fisher (1997) found a propensity for individuals to discontinue condom use over time as they form serially monogamous relationships, even in the absence of STI/HIV testing. In a study of the contraceptive practices of young Canadian women aged 15 to 29, Fisher and Boroditsky (2000) found that the two most frequent reasons for discontinuing or decreasing condom use were “I have only one sexual partner” and “I know and trust my partner.”

In sum, teens and young adults are likely to move, over time, into and out of a series of monogamous relationships. If condoms are not used in these serially monogamous relationships, the net effect is multiple sexual partners without protection against STIs, a very common pattern of behaviour that puts young Canadians at high risk for STI infection.

SUMMARY REPORT CARD: CONCLUSIONS AND CLINICAL IMPLICATIONS

Similar to previous assessments of adolescent sexual health in Canada (see Maticka-Tyndale, 2001), the data reviewed in this report offer both good news and bad news concerning the current status of adolescent sexual/reproductive health. On the plus side, long-term trends in Canadian teen pregnancy, abortion, and birth rates indicate teenage Canadian women are exercising greater and more effective control over their fertility. Data up to 2000 indicate that the overall Canadian teen pregnancy rate stands at an all time low. The findings on teen pregnancy among younger teens in particular are strongly suggestive of a reduced number of unintended teen pregnancies in Canada. With respect to the proportion of teens who are sexually active and number of sexual partners, the available data is also encouraging. The percentage of both younger and older teens who report having had sexual intercourse has not been increasing. Indeed, male teens are somewhat less likely to have

Figure 9 Top Four Reasons Grade 9 and 11 Females Give for not Using Condoms at Last Intercourse (%)



Source Boyce et al., (2003)



had intercourse than in the past. In addition, the percentage of sexually active teens who report having had only one sexual partner has increased substantially while the percentage who report six or more lifetime sexual partners has declined. Finally, most teens report using some form of protection at last intercourse. Overall, these data are encouraging and suggest that in some important respects the status of adolescent sexual health in Canada has improved. However, these positive developments should be tempered by several considerations. First, although the teen pregnancy rate in Canada has declined over time, close to 40,000 teens become pregnant each year and a significant number of these pregnancies are unintended. Second, although most teens report taking protective measures at last intercourse, contraceptive/safer sex measures among Canadian teens is far from universal or consistent.

On the negative side, STI rates among Canadian teens remain unacceptably high and, as indicated by recent trends in chlamydia rates, they are continuing to rise. Reducing STI rates among Canadian teens will require a coordinated effort. At the macro level, educational institutions, such as schools, must provide universal access to comprehensive and effective sexual health education (Health Canada, 2003b; SOGC, 2004a) and physicians and other health care providers must routinely incorporate sexual health assessment including contraceptive and STI prevention counselling/education as a standard component of adolescent health care (Health Canada, 1998b; SOGC, 2004b). At the micro level, whether provided in the classroom, health clinic, or doctor's office, these interventions should be guided by an information, motivation, behavioural skills (IMB) approach that effectively promotes the integration of consistent contraception to prevent unintended pregnancy with safer sex practices to reduce the risk of STI. The IMB model is a theoretically-based, empirically supported approach to sexual health enhancement and problem prevention (see Health Canada, 2003) and is recommended for school-based sexual health education (SOGC, 2004a) as well as contraceptive counselling (SOGC, 2004b) and STI prevention counselling (Health Canada, 1998b).

This report has specifically identified the behavioural tendency for adolescents and young adults to abandon

condoms in the process of initiating oral contraceptive use in the context of serially monogamous relationships as a key factor that must be addressed in helping adolescents reduce their risk of STI infection. As noted earlier, Appendix A provides a brief guide for physicians and other health care providers for conducting a sexual health assessment with adolescents with an emphasis on promoting dual protection from unintended pregnancy and STI infection.

Finally, this report has focused on national data to provide broad indicators of adolescent sexual health. However, it is important to recognize that teen pregnancy and STI rates in Canada vary considerably by geographic region as well as a range of other factors including economic and social status (Hardwick & Patychuk, 1999; Maticka-Tyndale, McKay, & Barrett, 2001). While improved universal access to high quality sexual health education and health services must remain a priority, intensified, specifically targeted and tailored sexual health interventions for youth that disproportionately suffer the burden of unintended pregnancy and STI are required.

APPENDIX A: A Brief Guide to Conducting a Clinical Adolescent Sexual Health Assessment with an Emphasis on Promoting Dual Protection Against Unintended Pregnancy and STI Infection.

ROUTINE SEXUAL HEALTH ASSESSMENT

A key component of adolescent health care is a regular sexual health assessment. Health care providers can use a standard script for introducing and discussing sexual health with an adolescent patient. For example, a clinician can begin by saying, **"As a standard part of doing a health assessment, I ask all my patients some questions about sexual health. I am going to ask you a few questions about your sexual health, OK?"** In conducting the assessment, physicians should assure the patient that the discussion is confidential and maintain a nonjudgemental attitude and tone. The Society of Obstetricians and Gynecologists of Canada (SOGC, 2004b) recommends five sexual health assessment questions. An expanded version of the SOGC (2004b) question framework adapted for use



specifically with adolescents is given below.

1. Are you sexually active? By sexually active, I mean have you had sexual intercourse? Have you had oral sex? Have you had anal sex?
2. Have you had sex with females, with males, or with both?
3. How many sexual partners have you had? Did you always use condoms?
4. What are you and your current partner doing to prevent pregnancy?
5. What are you and your current partner doing to prevent sexually transmitted infections/HIV infection?
6. Has anyone ever forced you physically to do something sexual?
7. Has anyone ever put a lot of pressure on you to do something sexual that you did not want to do?
8. You are ___ years-old? How old is your partner?
9. Do you experience any pain or discomfort in the genital area? Any pain or discomfort during sexual activity?
10. Are there any questions about sex that you want to ask me?

Physicians should be prepared to respond appropriately to the range of responses that patients may give. Patient responses provide an opportunity for the physician to provide information and initiate further discussion of important sexual health issues.

Although adolescents who report that they are not sexually active may not need to be asked all of these questions, it remains important for non-sexually active adolescents to be asked questions 6, 7, 9, 10. Given that the vast majority of Canadian young people do become sexually active during their teenage years, it is important for health care providers to initiate discussion with non-sexually active adolescents about the need to protect sexual health if and when sexual activity occurs. For example, the health care provider can say:

You are at an age when many teens are thinking about if they will have sex. If you're not having sex, you don't have to worry about pregnancy or sexually transmitted infections (STIs). But when and if you do become sexually active it is very important for you to

be protected against both pregnancy and STIs. That means using a condom every time and if you decide that you want to use the birth control pill or some other kind of contraception, you still need to use condoms for STI protection. Are we clear about that? Are there any questions you want to ask me about protecting yourself?

COUNSELLING TO PROMOTE DUAL PROTECTION

Because it is a highly effective, female controlled method of reversible contraception, many adolescent women choose hormonal oral contraception. Physicians and other health care providers play a key role in ensuring that adolescents seeking oral contraception obtain the necessary information, motivation and behavioural skills to use their contraceptive method safely and consistently. According to the SOGC (2004b) *Canadian Contraception Consensus* this process involves "Strategies to reduce harm, including the concept of 'dual protection' to reduce the risk of both unplanned pregnancy and sexually transmitted infection, need to be addressed with each encounter" (p. 7). Furthermore, as noted in Health Canada's (1998b) *Canadian STD Guidelines* it is critical for physicians to

Discuss with patients the widespread belief that STD prevention is not necessary in "monogamous relationships" or with partners who are "known and trusted". STD risk behaviours occur at **exceedingly** high rates within "monogamous" (actually serially monogamous) relationships with "known and trusted" partners (whose STD or HIV status actually is not known) (p. 32).

The information-motivation-behavioural skills (IMB) model for sexual risk reduction provides clinicians and educators with a theory-based, empirically supported framework for promoting sexual health behaviour change, including contraceptive and condom use practices (Health Canada, 1998b, 2003; SOGC, 2004b). The physician or health care provider can provide the following series of IMB messages to help patients adopt consistent dual protection practices (some items adapted from SOGC, 2004b; Health Canada, 1998b).



INFORMATIONAL MESSAGES TO PROMOTE DUAL PROTECTION

“Most people will have more than one monogamous relationship during their teenage and young adult years.”

“Sexually transmitted infections are very common among young people and they can seriously damage your health.”

“In most cases of sexually transmitted infection, there are no visible signs or symptoms and the person does not know they are infected.”

“Oral contraceptives are very effective in preventing pregnancy but they do not prevent sexually transmitted infections. Condoms reduce the risk of infection.”

MOTIVATIONAL MESSAGES TO PROMOTE DUAL PROTECTION

“I have seen patients who stop using condoms once they have gone on the pill and some of them end up getting an STI.”

“As your doctor I strongly recommend that now that you are on the pill that you also continue to use condoms. That way you can be comfortable that you are doing the things you need to do to be protected.”

“You can tell your boyfriend that I strongly recommend that all my patients on the pill continue to use condoms.”

BEHAVIOURAL SKILL MESSAGES TO PROMOTE DUAL PROTECTION

“Let’s talk about how you are going to discuss the issue of dual protection with your partner.”

“You can say to your partner, **‘I’m happy with my decision to start taking the pill but my doctor said we should continue using condoms. That way we are fully protected and do not have to worry about it and can just enjoy ourselves.’**”

“If he says, **‘If you’re on the pill, we don’t need condoms,’** you can say, **‘I want to use them anyway so that we are protected from infections we may not realize we have. My doctor said it’s important to use both.’**”

“If he says, **‘I know I’m clean. I haven’t had sex in X number of months,’** you can say, **‘As far as I know I don’t have an STI either, but either one of us could have an infection without knowing it so I want to use condoms.’**”

“If he says, **‘You don’t trust me,’** you can say, **‘This is not about trust, it’s about protecting each other.’**”

“If he says, **‘I don’t have a condom with me,’** you can say, **‘I do.’**”

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