

# SEX, CONDOMS AND STDS AMONG YOUNG PEOPLE

by Michelle Rotermann

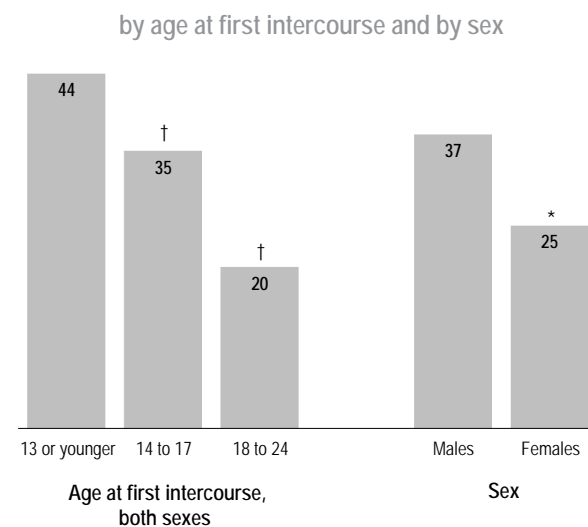
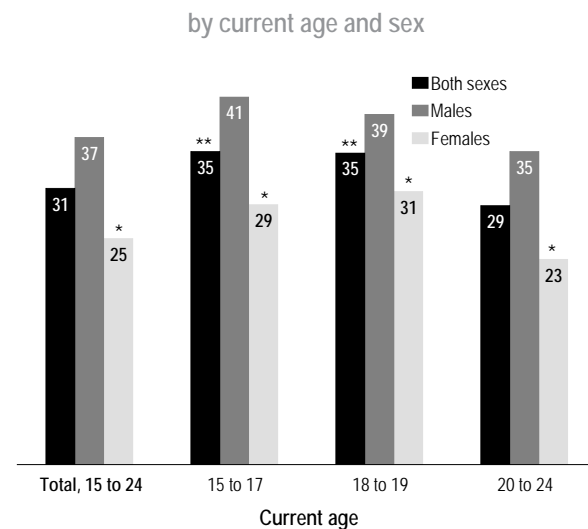
In 2003, about 6 in 10 young people aged 15 to 24 reported having had sexual intercourse at least once in their lives (Table A). The same proportions of males and females in that age group had had sex (62%), and most of them remained sexually active after their first experience. The average age at first-time sexual intercourse was also consistent for both sexes: 16.5 years (data not shown).

The proportion of 15- to 24-year-olds who had had sex was significantly higher than the national figure in Québec (74%), as well as in Newfoundland and Labrador and New Brunswick (both 68%). In British Columbia, Saskatchewan, Alberta, and Ontario, the figures ranged from 55% to 58%, all significantly below the national average (Table A).

## Approaching adulthood

As expected, the likelihood of having sex rose as teens approached adulthood. At ages 15 to 17, 28% reported having had sex. By

Percentage of sexually active 15- to 24-year-olds who reported having multiple partners in past year...



Data source: 2003 Canadian Community Health Survey  
 \* Significantly different from estimate for males ( $p < 0.05$ )  
 \*\* Significantly different from estimate for 20-24 age group ( $p < 0.05$ )  
 † Significantly different from estimate for 13 or younger ( $p < 0.05$ )

comparison, 65% in the 18- to-19 age group and 80% in the 20-to-24 group had had intercourse.

## Multiple partners

Among the 15- to 24-year-olds who had had intercourse in the past year, about one-third had done so with more than one partner. Males were more likely than females to have had multiple partners: 37% versus 25%.

Age at first sexual experience was related to the likelihood of having more than one partner. Those who had had intercourse by age 13 were generally significantly more likely to have had two or more sexual partners during the past year than those who had had their first experience when they were older.

Higher proportions of youth aged 15 to 17 and 18 to 19 had had intercourse with multiple partners in the past year, compared with 20- to 24-year-olds. This difference may reflect a tendency toward longer-term, monogamous relationships at older ages.

## Condoms

Just under 4 in 10 sexually active 15-to-24 year-olds who had been with multiple partners in the past year and/or who were single had not used a condom the last time they had intercourse. The figures were significantly lower in Newfoundland, Nova Scotia and Ontario, and significantly higher in Québec (Table B).

Of course, other factors influence condom use. When the effects of age, age at first intercourse, Aboriginal and marital status were also considered, higher odds of having sex without a condom

emerged for young women in Québec and New Brunswick, compared with their Ontario counterparts (data not shown).

## Sex without condom

Females were more likely than males to have intercourse without a condom (Table B), a finding consistent with other studies.<sup>1-4</sup> The difference found in this analysis may have been partly caused by the wording of the question about condom use: “Did you use a condom . . . ?” Females may have thought they were being asked about using a female condom, and not if their partner had worn one.

For females, reporting sex without a condom was related to age at first intercourse. Close to 60% of those who started having sex by age 13 reported not using a condom the last time they had had intercourse. This compares with 46% of females who began having sex at ages 14 to 17, and 37% of those who began at ages 20 to 24. Even allowing for other related influences, the odds of not using a condom were higher for females who started having intercourse at the beginning of their teens (data not shown).

## Use by number of partners, age

Young people who had had only one sex partner in the past year were less likely to report having used a condom the last time they had intercourse than those who had had more than one partner. This association persisted even when adjusting for other factors (data not shown).

Sex without a condom was most common at ages 20 to 24, with nearly 44% reporting that they had not used a condom the last time they had had intercourse (Table B). This compares with 33% in the 18-to-19 group, and 22% of those aged 15 to 17. Even when other factors were taken into account, this relationship between age and condom use persisted. Again, it may be that long-term relationships with one partner are more common in the older age group and thus condom use is perceived to be less of a concern.

### The Questions

The percentages of 15- to 24-year-olds who had had sexual intercourse at least once in their life or who were sexually active were based on “Yes/No” responses to the following questions in the 2003 Canadian Community Health Survey (CCHS):

- Have you ever had sexual intercourse?
- In the past 12 months, have you had sexual intercourse?

Respondents were asked how old they were “the first time,” which was used to establish average age at first intercourse.

The percentage who had had sexual intercourse with more than one partner in the past year was based on the number of partners respondents said they had had in the 12 months before their survey interview.

Estimates of condom use among sexually active young people who had been with multiple partners in the past year and/or who were single were based on responses to:

- Did you use a condom the last time you had intercourse?

Because condom use was based on the most recent sexual encounter, it may not necessarily reflect an individual’s typical behaviour. It is also possible that the question itself generated confusion among respondents, as it does not specifically ask about male versus female condom use.

The prevalence of sexually transmitted diseases (STDs), also referred to as “sexually transmitted infections” or “STIs”, among sexually active young people was based on responses to:

- Have you ever been diagnosed with a sexually transmitted disease?

Unprotected sex was about as common among Aboriginal as non-Aboriginal youth. However, when separate analyses were conducted for males and females and other influences were considered, the odds of not using a condom were nearly twice as high for young Aboriginal males as for their non-Aboriginal counterparts (data not shown).

## Sexually transmitted diseases

When used properly and consistently, condoms are effective barriers in preventing many sexually transmitted diseases (STDs), including gonorrhea and chlamydia. Such conditions are now often referred to as “sexually transmitted infections,” however, CCHS respondents were asked if they had ever been diagnosed with a “sexually transmitted disease.” Recent reports have found persistently high—even increasing—rates of these diseases among younger people,<sup>5,6</sup> yet condom use among 15- to 24-year-olds has been described as erratic.<sup>1,7-9</sup>

According to the 2003 CCHS, 4% of 15- to 24-year-olds (about 106,000) who had had sex at least

once in their lives reported having been diagnosed with an STD (Table C). Because of the lack of symptoms and/or a lack of awareness, these figures likely represent only a fraction of the actual number of infections in this age group.

In 2003, over twice as many females as males aged 15 to 24 reported ever having been diagnosed with an STD. This may partly reflect the greater opportunity for diagnosis among females who visit physicians for reproductive health care.<sup>13,14</sup> In addition, some STD screening programs target women.<sup>13,14</sup>

## Age and STD risk

Probably as a reflection of more years of sexual activity, young adults aged 20 to 24 were significantly more likely to have been diagnosed with an STD at some point, compared with 15- to 17-year-olds (Table C). As well, across the country, youth in the Territories and Manitoba were more likely to report having been diagnosed with an STD (data not shown).

Early age at first intercourse, being Aboriginal, and having had sex with multiple partners in the past year increased the risk of an STD. Youth who began having sexual intercourse by age 13 were over twice as likely to report an STD than were individuals who began having sex when they were older. The proportion of Aboriginal youth reporting STDs was 2.5 times as high as the corresponding figure for non-Aboriginals.

As expected, not using a condom was associated with a higher risk of STDs. The proportion of youth reporting STDs was twice as high for those who did not use a condom the last time they had sexual intercourse as for those who did (6% versus 3%).

### Data source

Reports of sexual intercourse, condom use and sexually transmitted diseases among young people aged 15 to 24 were estimated with data from the 2003 Canadian Community Health Survey (CCHS), conducted between January and December of that year. The CCHS covers the population aged 12 or older who were living in private households at the time. It does not include residents of Indian reserves, Canadian Forces bases, or some remote areas.<sup>10</sup>

The overall response rate was 80.6%; the total sample size was 135,573. This analysis is based on a sample of 18,084, weighted to be representative of the household population aged 15 to 24 in 2003. All differences were tested to ensure statistical significance, which was established at the 0.05 level. To account for survey design effects, standard errors and coefficients of variation were estimated using the bootstrap technique.<sup>11,12</sup>

Michelle Rotermann (613-951-3166; [Michelle.Rotermann@statcan.ca](mailto:Michelle.Rotermann@statcan.ca)) is with the Health Statistics Division at Statistics Canada, Ottawa, Ontario, K1A 0T6.

## References

- 1 Martin K, Wu Zheng. Contraceptive use in Canada: 1984-1995. *Family Planning Perspectives* 2000; 32(2): 65-73.
- 2 Matika-Tyndale E, McKay A, Barrett M. Teenage Sexual and Reproductive Behavior in Developed Countries—Country Report For Canada 2001. Available at [http://www.guttmacher.org/pubs/canada\\_teen.pdf](http://www.guttmacher.org/pubs/canada_teen.pdf). Accessed August 9, 2004.
- 3 Matika-Tyndale E, Barrett M, McKay A. Adolescent sexual and reproductive health in Canada: A review of national data sources and their limitations. *The Canadian Journal of Human Sexuality* 2000; 9(1): 41-65.
- 4 Ford K, Sohn W, Lepkowski J. Characteristics of adolescents' sexual partners and their association with use of condoms and other contraceptive methods. *Family Planning Perspectives* 2001; 33(3): 101-5, 132.
- 5 Health Canada, Population and Public Health Branch. 1998/1999 Canadian Sexually Transmitted Diseases (STD) Surveillance Report. Available at <http://www.bc-sc.gc.ca/pphb-dgspsp/publicat/cdr-rmtc/00pdf/cdr26s6e.pdf>. Accessed August 9, 2004.
- 6 Public Health Agency of Canada. 2002 Canadian Sexually Transmitted Infections (STI) Surveillance Report. Available at [http://www.phas-aspc.gc.ca/std-mts/stddata\\_pre\\_06\\_04/index.html](http://www.phas-aspc.gc.ca/std-mts/stddata_pre_06_04/index.html). Accessed November 19, 2004.
- 7 Gleit DA. Measuring contraceptive use patterns among teenage and adult women. *Family Planning Perspectives* 1999; 31(2): 73-80.
- 8 Galambos NL, Tilton-Weaver LC. Multiple-risk behaviour in adolescents and young adults. *Health Reports* (Statistics Canada, Catalogue 82-003) 1998 10(2): 9-19.
- 9 Thomas BH, CiCenso A, Griffith L. Adolescent sexual behaviour: results from an Ontario sample. *Canadian Journal of Public Health* 1998; 89(2): 94-7.
- 10 Béland Y. Canadian Community Health Survey—Methodological overview. *Health Reports* (Statistics Canada, Catalogue 82-003) 2002; 13(3): 9-14.
- 11 Rao JNK, Wu CFJ, Yue K. Some recent work on resampling methods for complex surveys. *Survey Methodology* (Statistics Canada, Catalogue 12-001) 1992; 18(2): 209-17.
- 12 Rust K, Rao JNK. Variance estimation for complex surveys using replication techniques. *Statistical Methods in Medical Research* 1996; 5: 281-310
- 13 Panchaud C, Singh S, Feivelson D, et al. Sexually transmitted diseases among adolescents in developed countries. *Family Planning Perspectives* 2000; 32(1): 24-32, 45.
- 14 Wong T, Singh S, Mann J, et al. Gender differences in bacterial STIs in Canada. *BMC Women's Health* 2004; 4(Suppl 1): S26. Available at <http://www.biomedcentral.com/content/pdf/1472-6874-4-S1-S26.pdf>. Accessed November 19, 2004.

**Table A****Percentage of 15- to 24-year-olds who had had sexual intercourse at least once, by sex and selected characteristics, Canada, 2003**

|   | Total   |                   | Males   |                   | Females <sup>†</sup> |                   |
|---|---------|-------------------|---------|-------------------|----------------------|-------------------|
|   | '000    | %                 | '000    | %                 | '000                 | %                 |
| <b>Total</b>                                      | 2,604.2 | 61.9              | 1,321.1 | 61.5              | 1,283.1              | 62.3              |
| <b>Age group</b>                                  |         |                   |         |                   |                      |                   |
| 15 to 17 <sup>†</sup>                             | 349.7   | 28.1              | 173.4   | 27.4              | 176.3                | 28.8              |
| 18 to 19  | 515.9   | 64.7*             | 265.3   | 65.6*             | 250.6                | 63.8*             |
| 20 to 24  | 1,738.6 | 80.2*             | 882.4   | 79.4*             | 856.1                | 81.1*             |
| <b>Marital status</b>                             |         |                   |         |                   |                      |                   |
| Single (never married/separated/divorced/widowed) | 2,224.2 | 58.5*             | 1,189.7 | 59.2*             | 1,034.6              | 57.6*             |
| Married/Common-law <sup>†</sup>                   | 378.2   | 94.1              | 130.8   | 94.7              | 247.4                | 93.8              |
| <b>Aboriginal</b>                                 |         |                   |         |                   |                      |                   |
| Yes   | 135.3   | 75.7*             | 54.9    | 70.5*             | 80.4                 | 79.7*             |
| No <sup>†</sup>                                   | 2,384.3 | 62.8              | 1,221.2 | 62.5              | 1,163.2              | 63.0              |
| <b>Province/Territories</b>                       |         |                   |         |                   |                      |                   |
| Newfoundland and Labrador                         | 51.1    | 67.9 <sup>§</sup> | 25.4    | 63.9              | 25.7                 | 72.3 <sup>§</sup> |
| Prince Edward Island                              | 11.9    | 62.7              | 5.7     | 60.1              | 6.1                  | 65.3              |
| Nova Scotia                                       | 80.8    | 64.2              | 38.6    | 61.0              | 42.2                 | 67.5              |
| New Brunswick                                     | 66.3    | 68.0 <sup>§</sup> | 33.8    | 65.1              | 32.6                 | 71.3 <sup>§</sup> |
| Québec  | 704.0   | 73.8 <sup>§</sup> | 361.7   | 73.3 <sup>§</sup> | 342.3                | 74.3 <sup>§</sup> |
| Ontario   | 961.7   | 58.1 <sup>§</sup> | 489.7   | 58.0 <sup>§</sup> | 472.0                | 58.3 <sup>§</sup> |
| Manitoba  | 89.5    | 61.8              | 44.5    | 63.5              | 45.0                 | 60.2              |
| Saskatchewan                                      | 78.3    | 56.4 <sup>§</sup> | 37.0    | 53.8 <sup>§</sup> | 41.3                 | 58.9              |
| Alberta   | 258.4   | 57.3 <sup>§</sup> | 132.5   | 56.1 <sup>§</sup> | 125.9                | 58.6              |
| British Columbia                                  | 292.1   | 54.8 <sup>§</sup> | 147.9   | 56.0 <sup>§</sup> | 144.2                | 53.6 <sup>§</sup> |
| Territories                                       | 10.0    | 67.2              | 4.3     | 60.4              | 5.7                  | 73.3 <sup>§</sup> |

Data source: 2003 Canadian Community Health Survey

<sup>†</sup> Reference group\* Significantly different from estimate for reference group ( $p < 0.05$ )§ Significantly different from estimate for Canada total or male/female total ( $p < 0.05$ )

**Table B**

**Non-condom use among sexually active 15- to 24-year-olds who were single and/or had sex with more than one partner in past year, by sex and selected characteristics, Canada, 2003**

|   | Did not use condom the last time |                   |                   |                    |                      |                   |
|---|----------------------------------|-------------------|-------------------|--------------------|----------------------|-------------------|
|   | Total                            |                   | Males             |                    | Females <sup>†</sup> |                   |
|   | '000                             | %                 | '000              | %                  | '000                 | %                 |
| <b>Total</b>                                      | 771.8                            | 37.8              | 350.0             | 32.7 <sup>§</sup>  | 421.8                | 43.5              |
| <b>Age group</b>                                  |                                  |                   |                   |                    |                      |                   |
| 15 to 17  | 65.4                             | 21.5 <sup>†</sup> | 22.3              | 14.8 <sup>§</sup>  | 43.1                 | 28.0              |
| 18 to 19  | 146.2                            | 32.5 <sup>†</sup> | 58.1              | 25.2 <sup>§</sup>  | 88.0                 | 40.0              |
| 20 to 24  | 560.3                            | 43.6 <sup>†</sup> | 269.5             | 39.1 <sup>§</sup>  | 290.7                | 48.8              |
| <b>Number of partners</b>                         |                                  |                   |                   |                    |                      |                   |
| One <sup>†</sup>                                  | 533.2                            | 41.0              | 243.1             | 38.4 <sup>§</sup>  | 290.1                | 43.6              |
| More than one                                     | 238.6                            | 32.3 <sup>*</sup> | 106.8             | 24.6 <sup>§</sup>  | 131.7                | 43.4              |
| Two   | 133.4                            | 34.0 <sup>*</sup> | 49.3              | 24.2 <sup>§</sup>  | 84.1                 | 44.4              |
| Three   | 50.4                             | 30.5 <sup>*</sup> | 26.3              | 25.7 <sup>§</sup>  | 24.1                 | 38.5              |
| Four or more                                      | 54.8                             | 30.3 <sup>*</sup> | 31.2              | 24.2 <sup>§</sup>  | 23.5                 | 45.5              |
| <b>Age at first sexual intercourse</b>            |                                  |                   |                   |                    |                      |                   |
| 13 or younger <sup>†</sup>                        | 49.4                             | 42.8              | 22.1              | 32.1 <sup>§</sup>  | 27.3                 | 58.8              |
| 14 to 17  | 522.2                            | 38.9              | 235.6             | 33.0 <sup>§</sup>  | 286.5                | 45.7 <sup>*</sup> |
| 18 or older                                       | 200.2                            | 34.4 <sup>*</sup> | 92.3              | 32.1               | 108.0                | 36.5 <sup>*</sup> |
| <b>Aboriginal</b>                                 |                                  |                   |                   |                    |                      |                   |
| Yes   | 41.4                             | 42.4              | 16.2 <sup>E</sup> | 41.7               | 25.1                 | 42.8              |
| No <sup>†</sup>                                   | 703.2                            | 37.5              | 320.9             | 32.3 <sup>§</sup>  | 382.3                | 43.5              |
| <b>Marital status</b>                             |                                  |                   |                   |                    |                      |                   |
| Single (never married/separated/divorced/widowed) | 754.8                            | 37.5 <sup>*</sup> | 344.1             | 32.5 <sup>§</sup>  | 410.7                | 43.0              |
| Married/Common-law <sup>†</sup>                   | 16.0 <sup>E</sup>                | 63.3 <sup>E</sup> | F                 | 49.2 <sup>E</sup>  | 10.3 <sup>E</sup>    | 75.3              |
| <b>Province/Territories</b>                       |                                  |                   |                   |                    |                      |                   |
| Newfoundland and Labrador                         | 11.7 <sup>E</sup>                | 29.6 <sup>*</sup> | 4.9 <sup>E</sup>  | 23.1 <sup>E</sup>  | 6.9 <sup>E</sup>     | 37.0              |
| Prince Edward Island                              | 2.5 <sup>E</sup>                 | 27.5 <sup>E</sup> | F                 | F                  | 2.0 <sup>E</sup>     | 43.3              |
| Nova Scotia                                       | 18.2                             | 28.6 <sup>*</sup> | 6.8 <sup>E</sup>  | 22.9 <sup>E</sup>  | 11.4 <sup>E</sup>    | 33.5              |
| New Brunswick                                     | 20.1                             | 38.9              | 7.6 <sup>E</sup>  | 28.2 <sup>SE</sup> | 12.5                 | 50.6              |
| Québec  | 241.4                            | 44.3 <sup>*</sup> | 106.6             | 37.0 <sup>§</sup>  | 134.8                | 52.4              |
| Ontario   | 270.5                            | 34.9 <sup>*</sup> | 130.5             | 32.0 <sup>§</sup>  | 140.0                | 38.1              |
| Manitoba  | 26.5                             | 36.5              | 12.5 <sup>E</sup> | 33.3 <sup>E</sup>  | 14.0                 | 39.8              |
| Saskatchewan                                      | 19.4                             | 33.9              | 7.1 <sup>E</sup>  | 24.7 <sup>SE</sup> | 12.3                 | 43.3              |
| Alberta   | 76.0                             | 40.4              | 36.4              | 36.3               | 39.6                 | 45.1              |
| British Columbia                                  | 83.4                             | 36.3              | 36.2              | 29.8 <sup>§</sup>  | 47.2                 | 43.5              |
| Territories                                       | 2.0                              | 29.9              | 0.9 <sup>E</sup>  | 28.4 <sup>E</sup>  | 1.2 <sup>E</sup>     | 31.0 <sup>E</sup> |

Data source: 2003 Canadian Community Health Survey

<sup>†</sup> Reference group

<sup>‡</sup> Significantly different from all other categories ( $p < 0.05$ )

<sup>§</sup> Significantly different from estimate for females ( $p < 0.05$ )

<sup>\*</sup> Significantly different from estimate for reference group or from estimate for Canada total or male/female total ( $p < 0.05$ )

<sup>E</sup> Coefficient of variation 16.6% to 33.3%

<sup>F</sup> Coefficient of variation greater than 33.3%

Table C

## Self-reported STDs, ever sexually active 15- to 24-year-olds, by sex and selected characteristics, Canada, 2003

|  | Total             |                   | Males             |                    | Females <sup>†</sup> |                   |
|--|-------------------|-------------------|-------------------|--------------------|----------------------|-------------------|
|  | '000              | %                 | '000              | %                  | '000                 | %                 |
| Total                                  | 105.7             | 4.1               | 30.5              | 2.3 <sup>§</sup>   | 75.2                 | 6.0               |
| <b>Age group</b>                       |                   |                   |                   |                    |                      |                   |
| 15 to 17 <sup>†</sup>                  | 6.3 <sup>E</sup>  | 1.8 <sup>E</sup>  | F                 | F                  | 4.3 <sup>E</sup>     | 2.5 <sup>E</sup>  |
| 18 to 19                               | 12.2              | 2.4               | 2.7 <sup>E</sup>  | 1.0 <sup>†E</sup>  | 9.5 <sup>E</sup>     | 3.8 <sup>E</sup>  |
| 20 to 24                               | 87.3              | 5.1*              | 25.8              | 3.0 <sup>†</sup>   | 61.4                 | 7.3               |
| <b>Number of partners</b>              |                   |                   |                   |                    |                      |                   |
| One <sup>†</sup>                       | 57.4              | 3.5               | 12.1 <sup>E</sup> | 1.6 <sup>†E</sup>  | 45.3                 | 5.1               |
| More than one                          | 45.7              | 6.2*              | 17.9 <sup>E</sup> | 4.1 <sup>†E</sup>  | 27.7                 | 9.1               |
| Two                                    | 19.0 <sup>E</sup> | 4.8               | 3.8 <sup>E</sup>  | 1.9 <sup>†E</sup>  | 15.2 <sup>E</sup>    | 8.1 <sup>E</sup>  |
| Three                                  | 7.8 <sup>E</sup>  | 4.7 <sup>E</sup>  | F                 | F                  | 4.5 <sup>E</sup>     | 7.2 <sup>E</sup>  |
| Four or more                           | 18.8 <sup>E</sup> | 10.4 <sup>E</sup> | 10.8 <sup>E</sup> | 8.4 <sup>E</sup>   | 8.0 <sup>E</sup>     | 15.5 <sup>E</sup> |
| <b>Age at first sexual intercourse</b> |                   |                   |                   |                    |                      |                   |
| 13 or younger <sup>†</sup>             | 16.3              | 10.7              | 3.6 <sup>E</sup>  | 4.2 <sup>†E</sup>  | 12.7 <sup>E</sup>    | 19.1              |
| 14 to 17                               | 69.0              | 4.2*              | 21.0              | 2.5 <sup>†</sup>   | 48.0                 | 6.0               |
| 18 or older                            | 20.4 <sup>E</sup> | 2.7 <sup>*E</sup> | F                 | F                  | 14.5 <sup>E</sup>    | 3.7 <sup>E</sup>  |
| <b>Used condom last time</b>           |                   |                   |                   |                    |                      |                   |
| Yes                                    | 37.3              | 2.9*              | 13.5 <sup>E</sup> | 1.9 <sup>†*E</sup> | 23.8                 | 4.4*              |
| No <sup>†</sup>                        | 48.8              | 6.3               | 13.7 <sup>E</sup> | 3.9 <sup>†E</sup>  | 35.1                 | 8.3               |
| <b>Aboriginal</b>                      |                   |                   |                   |                    |                      |                   |
| Yes <sup>†</sup>                       | 12.8 <sup>E</sup> | 9.7*              | 3.9 <sup>E</sup>  | 7.5 <sup>E</sup>   | 8.9 <sup>E</sup>     | 11.1 <sup>E</sup> |
| No                                     | 91.1              | 3.9               | 26.5              | 2.2 <sup>†</sup>   | 64.6                 | 5.6               |

Data source: 2003 Canadian Community Health Survey

† Reference group

‡ Significantly different from estimate for females ( $p < 0.05$ )\* Significantly different from estimate for reference group ( $p < 0.05$ )

E Coefficient of variation 16.6% to 33.3%

F Coefficient of variation greater than 33.3%