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Sexual behaviours, condom use and other contraceptive methods among 15- to 24-year-olds in Canada

by Michelle Rotermann and Alexander McKay

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ABSTRACT

Background

Sexual and reproductive health are key issues for adolescents and young adults. Detailed national Canadian data about sexual behaviours, condom use and other contraceptive use by youth are lacking.

Methods

Data from the 2015/2016 Canadian Community Health Survey were used to examine sexual behaviours, condom and other contraceptive use, and reasons for non-use by selected characteristics.

Results

In 2015/2016, 54.1% of 15- to 24-year-olds reported having had sexual intercourse in the past year. Among those who had intercourse in the previous year, the percentage of males (42.6%) who had multiple sexual partners was higher than the percentage of females (31.4%). Gay and bisexual males (67.4% and 72.5%, respectively) and bisexual females (47.5%) were more likely to report having had multiple partners than their heterosexual counterparts. Overall, 60.1% of youth reported using a condom the last time they had sex. This was more common at younger ages, among males and among those who reported having had sex with more than one partner in the previous year. When asked the reason for not using a condom, monogamy and use of another method, such as oral contraceptive pills, were each cited by nearly half of non-users. Some reasons for not using a condom also differed by age, sex and number of partners. For example, youth aged 20 to 24 were more likely to report not using a condom because they disliked them, whereas those aged 15 to 17 were more likely to report none were available. About one-fifth of 15- to 24-year-olds reported using neither a condom nor another method of contraception the last time they had sex. One in 10 currently sexually active females reported using emergency contraception in the past year.

Interpretation

A substantial proportion of youth in Canada are at high risk for sexually transmitted infections and unplanned pregnancy, and the findings have implications for comprehensive sexual health education and related policies and programs.

Keywords

Contraception, condom, pregnancy prevention, sexual intercourse, sexual partners

AUTHORS

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Sexual behaviours, condom use, and protection against unwanted pregnancies and sexually transmitted infections (STIs) are important indicators of sexual and reproductive health. National data on these indicators can assist the public health and education sectors in planning and implementing effective programming to promote sexual health. Data on condom use are of particular interest because correct and consistent condom use reduces the risk of passing on STIs¹ and is an effective method of contraception.² Information on the motivations for not using condoms or other contraceptives can help governments and organizations develop policies and initiatives that encourage their use. Reported rates of nationally notifiable STIs

have increased substantially since 2001, with these infections disproportionately affecting people younger than 30,³ and there are an estimated 180,700 unintended pregnancies annually in Canada,⁴ underscoring the need for data related to sexual health. Data from the 2015/2016 Canadian Community Health Survey (CCHS) were used to examine rates of sexual activity, numbers of intercourse partners, use of condoms or other contraceptives, and reasons for not using condoms among sexually active 15- to 24-year-olds.

Table 1
Number and percentage of currently sexually active 15- to 24-year-olds, and percentage of those reporting multiple partners, by selected characteristics, household population, Canada, 2015/2016

	Total				Males				Females			
	000'	%	95% confidence interval		000'	%	95% confidence interval		000'	%	95% confidence interval	
			from	to			from	to			from	to
Currently sexually active												
Total, 15- to 24-year-olds	2,180.8	54.1	52.6	55.6	1,109.0	53.1	50.9	55.2	1,071.8	55.2	53.2	57.3
Age group (years)												
15 to 17	217.6	20.6 †	18.9	22.3	106.4	19.6 †	17.3	22.1	111.2	21.6 †	19.3	24.1
18 to 19	446.6	52.4 †	48.9	55.9	233.5	54.0 †	48.9	59.0	213.1	50.9 †	46.2	55.5
20 to 24 †	1,516.6	71.5	69.2	73.7	769.1	69.1	65.8	72.2	747.5	74.2 *	71.3	77.0
Sexual orientation												
Heterosexual †	1,988.2	54.3	52.7	55.9	1,035.9	53.2	51.0	55.5	952.3	55.5	53.3	57.6
Gay or lesbian	46.8	65.0 †	55.2	73.7	26.0	71.3 †	56.9	82.4	20.8	58.6	45.0	70.9
Bisexual	92.4	61.1	53.9	67.8	22.1	57.4	44.3	69.6	70.3	62.3	53.4	70.4
Province or Territory												
Newfoundland and Labrador	34.6	63.6 †	57.7	69.2	14.2	56.1	45.7	66.1	20.4	70.2 †*	62.1	77.2
Prince Edward Island	10.6	63.9 †	56.9	70.3	5.0	67.7 †	56.4	77.2	5.6	60.9	52.0	69.1
Nova Scotia	63.1	61.6 †	55.6	67.3	35.0	68.0 †	60.2	75.0	28.1	55.2 *	46.7	63.4
New Brunswick	44.9	61.2 †	54.1	67.8	19.5	60.0	48.6	70.3	25.4	62.1	53.3	70.2
Quebec	575.0	62.2 †	59.3	65.0	286.4	60.5 †	56.4	64.4	288.6	64.0 †	60.0	67.7
Ontario	804.5	50.1 †	47.5	52.8	425.9	50.3 †	46.5	54.1	378.6	49.9 †	46.3	53.6
Manitoba	68.3	44.5 †	39.3	49.7	31.2	38.4 †	31.1	46.2	37.2	51.3 *	43.7	58.8
Saskatchewan	64.9	58.3	52.9	63.6	36.7	59.2	51.8	66.1	28.2	57.3	48.3	65.9
Alberta	242.8	53.1	49.3	56.8	118.4	51.5	46.2	56.7	124.3	54.7	49.4	59.9
British Columbia	262.3	50.9	47.1	54.7	131.9	48.7	43.4	54.0	130.4	53.4	48.0	58.7
Yukon	2.8	67.7 †	56.0	77.5	1.5	68.3	51.1	81.6	1.3	67.0	51.5	79.5
Northwest Territories	3.5	71.4 †	57.6	82.1	1.9	71.1	49.1	86.2	1.6	71.7 †	56.8	83.0
Nunavut	3.6	59.1	47.7	69.6	1.4	44.5 †	28.5	61.7	2.2	74.8 †*	62.3	84.2
Multiple sexual partners												
Total, 15- to 24-year-olds	799.4	37.1	35.1	39.1	463.8	42.6	39.7	45.6	335.7	31.4 *	28.9	34.0
Age group (years)												
15 to 17	75.1	34.8	30.6	39.4	34.4	32.8 †	26.6	39.8	40.7	36.7 †	31.2	42.5
18 to 19	166.6	37.9	33.7	42.3	89.3	39.3	33.5	45.5	77.3	36.4 †	30.5	42.7
20 to 24 †	557.8	37.1	34.6	39.7	340.1	45.0	41.2	48.8	217.7	29.2 *	26.2	32.3
Sexual orientation												
Heterosexual †	712.2	36.2	34.0	38.4	422.8	41.5	38.5	44.6	289.4	30.4 *	27.8	33.2
Gay or lesbian	23.9	51.0 †	37.4	64.5	17.5	67.4 †	48.7	81.7	6.4	30.6 †*	17.7	47.5
Bisexual	48.8	53.5 †	44.9	61.9	16.0	72.5 †	55.6	84.7	32.8	47.5 †*	37.9	57.2

* significantly different from corresponding estimate for males (p<0.05)

† reference category

‡ significantly different from reference category or the rest of Canada for provincial or territorial comparisons (i.e., each province or territory compared with the rest of Canada combined, minus the province or territory) (p<0.05)

§ use with caution (>0.15 to ≤0.35)

Note: Currently sexually active is defined as having had vaginal or anal intercourse in the past 12 months. The sample size for estimating the prevalence of being currently sexually active was 11,330. For estimating numbers with multiple sexual partners in the past 12 months, it was 6,034.

Source: 2015/2016 Canadian Community Health Survey.

Table 2
Condom use during last sexual intercourse among currently sexually active 15- to 24-year-olds, by number of sexual partners in the past year and selected characteristics, household population, Canada, 2015/2016

	Used condom during last sexual intercourse								
	Total			One partner			Multiple partners		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		from	to		from	to		from	to
Total, 15- to 24-year-olds	60.1	58.2	62.0	55.9	53.5	58.3	66.3 *	63.0	69.5
Sex									
Female	54.9 †	52.1	57.6	52.1 †	48.8	55.3	60.9 †*	55.7	65.9
Male [†]	65.0	62.2	67.8	60.3	56.6	63.9	70.1 *	65.7	74.2
Age group (years)									
15 to 17	79.9 †	76.0	83.3	81.1 †	76.6	84.8	77.4 †	69.5	83.7
18 to 19	67.3 †	63.1	71.3	65.4 †	59.8	70.6	69.9	63.2	75.8
20 to 24 [†]	55.1	52.6	57.6	49.4	46.4	52.4	63.7 *	59.5	67.8
Sexual orientation									
Heterosexual [†]	60.2	58.2	62.2	56.1	53.6	58.6	66.7 *	63.2	70.0
Gay males	52.0 ^E	30.8	72.4	F	...	...	60.2 ^E	31.2	83.5
Bisexual	63.7	54.4	72.1	58.0	45.0	69.9	68.3	55.3	78.9
Province or Territory									
Newfoundland and Labrador	61.1	50.7	70.5	63.2	51.6	73.4	56.3 ^E	38.7	72.4
Prince Edward Island	65.7	54.8	75.2	61.6	47.4	74.0	75.5	58.1	87.3
Nova Scotia	67.3	59.3	74.4	66.6 †	55.3	76.3	69.4	55.3	80.5
New Brunswick	64.3	54.9	72.7	60.3	47.8	71.7	73.2	56.4	85.2
Quebec	48.0 †	44.4	51.7	41.6 †	37.1	46.2	59.1 †*	52.5	65.4
Ontario	67.0 †	63.3	70.6	64.1 †	59.2	68.7	69.6	63.8	74.9
Manitoba	66.7	58.3	74.2	63.3	53.4	72.2	73.1	59.0	83.7
Saskatchewan	70.2 †	62.2	77.1	65.3	55.0	74.4	78.8 †	65.8	87.7
Alberta	57.8	52.6	62.8	53.4	47.1	59.5	67.2 *	58.3	75.0
British Columbia	60.3	54.7	65.5	58.0	50.8	64.8	63.9	54.2	72.6
Yukon	64.8	45.2	80.4	62.0 ^E	38.5	80.9	68.0 ^E	38.9	87.6
Northwest Territories	70.0	57.1	80.4	77.0 †	61.3	87.7	56.9 ^E	34.3	77.0
Nunavut	57.9	41.6	72.6	53.3 ^E	36.3	69.6	68.0 ^E	40.0	87.1

... not applicable

* significantly different from one partner (p<0.05)

† reference category

‡ significantly different from reference category or the rest of Canada for provincial or territorial comparisons (i.e., each province or territory compared with the rest of Canada combined, minus the province or territory) (p<0.05)

^E use with caution (>0.15 to ≤0.35)

F too unreliable to be published (> 0.35)

Notes: The samples used for estimating the prevalence of condom use during last sex among currently sexually active 15- to 24-year-olds numbered 5,979 overall, and 5,935 when stratified by the number of sexual partners (one vs. multiple) in the past year. Females who reported last having sex with a female partner were not asked the condom use question and were therefore excluded from the analysis. Because sexual orientation does not always correlate with behaviour, it is possible that some lesbian women reported last having sex with a male (this is rare, and therefore explains why the corresponding estimates are unreleasable/not presented).

Source: 2015/2016 Canadian Community Health Survey.

Methods

Data sources

The CCHS collects information related to health status, health care use and health determinants for the Canadian population 12 years of age and older living in the provinces and territories.^{5,6} Excluded from the study are people living on reserves and other Aboriginal settlements, people in two health regions in northern Quebec, full-time members of the Canadian Forces, the institutionalized population, and youth aged 12 to 17 living in foster homes. These groups represent about 3% of the target

population.^{5,6} Details about the CCHS, including survey frames, sampling strategy, weighting and questionnaires, are available elsewhere.^{5,6}

Data were collected from January 2015 to December 2016 by computer-assisted telephone and in-person interviews. Most interviews were conducted by telephone (82%). The overall 2015/2016 response rate for all ages was 59.5%, corresponding to a final sample of 110,095 respondents.^{5,6} The samples used for the different analyses in the present article included up to 11,330 respondents aged 15 to 24 who completed the CCHS by self-report. Information about question eligibility and corresponding sample sizes of each analysis is provided in the presented data table.

Definitions

The percentage of 15- to 24-year-olds who had had sex at least once was based on the question: “Have you ever had sex? Please include vaginal and anal sex.” Respondents who reported ever having had sex were asked about their sexual partners in the past year: “In the past 12 months, have you had sex with a female or a male?” Those who reported having had sex with a female or

that applied: (1) they were pregnant or trying (originally separate reasons), (2) they did not think they were at risk of pregnancy, (3) they did not think they were at risk of sexually transmitted infections, including human immunodeficiency virus (HIV), (4) they were in a monogamous relationship, (5) they did not have a condom or other protection at the time, (6) they used another method of protection, (7) they did not like condoms, and (8) other.

Table 3
Reasons for not using a condom during last intercourse among currently sexually active 15- to 24-year-olds, by selected characteristics, household population, Canada, 2015/2016

	They were in a monogamous relationship		They used another method		They did not think they were at risk of an STI			They did not like condoms		They did not think they were at risk of pregnancy		They were pregnant or trying to get pregnant		They did not have a condom available		Other reason									
	95% confidence interval		95% confidence interval		95% confidence interval			95% confidence interval		95% confidence interval		95% confidence interval		95% confidence interval		95% confidence interval									
	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to							
Total, 15- to 24-year-olds	47.6	44.6	50.6	47.2	44.1	50.3	24.0	21.5	26.7	21.8	19.2	24.7	18.2	15.9	20.8	6.3	5.0	8.0	10.5	8.8	12.5	4.0 ^E	2.9	5.5	
Sex																									
Female	53.5 [*]	49.5	57.4	48.4	44.4	52.5	25.2	21.7	29.1	19.6	16.3	23.4	17.4	14.5	20.7	8.5 [*]	6.4	11.2	8.4 [*]	6.6	10.6	3.9 ^E	2.5	6.0	
Male [†]	40.3	35.6	45.1	45.7	40.9	50.6	22.5	18.9	26.5	24.5	20.5	28.9	19.3	15.8	23.4	3.6 ^E	2.5	5.2	13.1	10.1	16.9	4.1 ^E	2.5	6.6	
Age group (years)																									
15 to 17	32.9 ^{E*}	23.8	43.5	58.1 [*]	47.9	67.6	26.1 ^E	18.5	35.5	14.0 ^E	8.6	21.8	19.6 ^E	13.5	27.6	F	...	...	25.7 ^{E*}	17.6	35.8	F	...	...
18 to 19	38.3 [*]	31.5	45.7	43.4	36.1	51.1	23.0	17.1	30.3	26.9	20.7	34.1	20.0 ^E	14.1	27.6	3.5 ^{E*}	1.9	6.3	14.5 ^E	9.5	21.4	F	...	...
20 to 24 [†]	50.5	47.0	54.1	47.3	43.8	50.9	24.1	21.2	27.2	21.2	18.3	24.5	17.7	15.2	20.7	7.3	5.6	9.3	8.6	6.9	10.8	4.4 ^E	3.1	6.3	
Sexual orientation																									
Heterosexual [†]	47.6	44.4	50.8	48.1	44.9	51.3	23.8	21.2	26.7	21.8	19.1	24.7	18.3	15.9	21.0	6.4	5.0	8.2	10.9	9.1	13.1	3.6 ^E	2.6	4.9	
Gay males	45.8 ^E	20.5	73.4	F	...	...	51.2 ^E	23.8	78.0	F	...	...	F	...	...	F	...	...	F	...	...	F	...	...
Bisexual	39.1 ^E	26.8	53.0	40.1 ^E	27.0	54.8	20.9 ^E	12.1	33.5	21.6 ^E	10.3	39.6	F	...	...	F	...	...	F	...	...	F	...	...
Number of sexual partners																									
One [†]	53.4	49.8	57.0	50.3	46.6	54.1	24.5	21.4	27.8	19.3	16.3	22.7	16.9	14.2	19.9	7.7	6.2	9.5	8.7	6.7	11.2	3.0 ^E	1.9	4.6	
More than one	34.8 [*]	29.5	40.5	40.2 [*]	34.7	45.9	23.1	18.8	28.1	27.5 [*]	22.9	32.8	21.4	17.2	26.2	F	...	...	14.4 [*]	11.0	18.6	6.2 ^E	3.8	9.9

... not applicable
 * significantly different from reference category (p<0.05)
 † reference category
^E use with caution (>0.15 to ≤0.35)
 F too unreliable to be published (> 0.35)

Notes: This table is based on the question “What are the reasons that you or your partner did NOT use a condom the last time you had sex?” The possible responses were being pregnant (currently) or trying to conceive, not thinking they were at risk of pregnancy, not thinking they were at risk of sexually transmitted infections (STI), being in a monogamous relationship, not having a condom, using another method of protection, not liking condoms, and other. Respondents could select more than one answer, and, therefore, total percentages exceed 100%. The sample used for estimating the reasons for not using a condom the last time they had sex among currently sexually active 15- to 24-year-olds numbered 2,382. Males (n=32) who reported last having sex with another male were not offered pregnancy or trying to get pregnant as reasons for not using a condom. Females who reported last having sex with another female were not asked the question on condom use, nor the following question about reasons for non-use. Because sexual orientation does not always correlate with behaviour, it is possible that some lesbian women reported last having sex with a male (this is rare, and therefore explains why the estimates are unreleasable/not presented).

Source: 2015/2016 Canadian Community Health Survey.

male were asked about how many different (female or male) partners they had had. Respondents were considered to have had multiple sexual partners if they reported having had more than one partner in the past year, regardless of the sex of the partners.

Condom use during the last time the respondent had sex was based on the question: “Did you or your partner use a condom the last time you had sex?” Female respondents who reported last having sex with a female were not asked the question about condom use. The type of condom was not specified. Respondents who reported not having used a condom the last time they had sex were asked for the reason. Up to nine reasons were provided and collapsed to 8 (if applicable—e.g., males who reported last having had sex with another male were not asked about pregnancy) and respondents could select all responses

Use of other contraceptives was based on the question: “What other methods of protection did you and your partner use the last time you had sex?” Up to 12 categories were provided and collapsed into 6 groups to minimize cell suppression: (1) oral contraceptive pill (OCP); (2) withdrawal or pulling out; (3) intrauterine device (IUD) or long-acting reversible contraceptive (LARC); (4) other hormonal methods, such as injection, implant, vaginal contraceptive ring or patch; (5) other methods, such as vasectomy or tubal sterilization, spermicidal foam or jelly, rhythm, or other; and (6) none (derived from other responses). Respondents could select more than one method.

Female respondents who reported last having had sex with a female were not asked the questions about condom use, the reason for not using a condom, or other contraception. Only males who

reported last having had sex with a female and females who reported last having had sex with a male were included in the contraceptive methods analysis.

Estimates of past-year use of emergency contraception (EC) among sexually active 15- to 24-year-old females who reported having had sex with a male partner were based on the question: "In the past 12 months, did you use the emergency contraceptive pill?"

Analytical technique

Weighted frequencies and cross-tabulations were calculated to examine, by selected characteristics, estimates of current sexual activity, condom and other contraceptive use (including EC use), and reasons for non-use. To account for survey design effects, coefficients of variation and 95% confidence intervals were estimated using the bootstrap technique.⁸ Differences between prevalence estimates were calculated with t-tests, and re-

Table 4
Percentage of currently sexually active 15- to 24-year-olds at risk of pregnancy and using different methods of protection exclusively or with a condom (dual use) the last time they had sexual intercourse, by selected characteristics, household population, Canada, 2015/2016

	Oral contraceptive pill (OCP)		Withdrawal or pulling out		Intrauterine device (IUD) or long-acting reversible contraceptive (LARC)			Other hormonal methods (patch, ring, injection or implant)			Other (unspecified, rhythm, spermicide products or surgery)			None of these methods				
	95% confidence interval		95% confidence interval		95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval				
	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to
Total, 15- to 24-year-olds	48.3	46.4	50.3	4.8	3.9	5.8	3.6	3.0	4.3	3.3	2.8	4.0	1.1	0.8	1.5	40.8	38.9	42.8
Sex																		
Female	51.7 *	48.9	54.4	4.9	3.8	6.4	4.6 *	3.7	5.7	3.9	3.1	5.0	1.2 ^E	0.8	1.8	35.4 *	32.7	38.2
Male [†]	45.0	42.3	47.8	4.6	3.5	6.0	2.7 ^E	1.9	3.6	2.7 ^E	2.0	3.7	1.0 ^E	0.6	1.8	46.2	43.4	49.0
Age group (years)																		
15 to 17	53.7 *	49.0	58.3	3.0 ^{E*}	1.8	4.8	F	...	...	2.2 ^E	1.3	3.7	F	...	...	41.6	37.1	46.3
18 to 19	52.9 *	48.6	57.2	5.4 ^E	3.6	8.0	1.9 ^{E*}	1.2	3.1	3.7 ^E	2.4	5.7	F	...	...	36.7 *	32.7	41.0
20 to 24 [†]	46.2	43.8	48.7	4.9	3.9	6.1	4.5	3.7	5.4	3.4	2.7	4.2	1.4 ^E	1.0	2.0	41.9	39.5	44.3
Dual use (each method with a condom)																		
Total	51.9	49.0	54.8	35.1	26.3	45.1	18.8 ^E	13.6	25.4	33.2	25.3	42.2	40.8 ^E	26.8	56.4	77.1	74.2	79.7
Sex																		
Female [†]	50.3	46.5	54.0	32.9	21.5	46.8	23.8 ^E	16.4	33.0	33.0 ^E	23.5	44.0	39.9 ^E	23.6	58.8	70.9	66.3	75.1
Male	53.8	49.4	58.2	37.4	25.1	51.6	10.3 ^{E*}	5.6	18.1	33.6 ^E	21.2	48.7	41.8 ^E	20.6	66.5	81.8 *	78.0	85.0
Age group (years)																		
15 to 17	72.3 *	66.4	77.5	35.8	17.4	59.6	F	...	...	53.9 ^E	27.8	78.1	81.3 ^{E*}	31.5	97.6	93.5 *	89.2	96.2
18 to 19	64.9 *	59.0	70.5	39.2	21.3	60.7	F	...	...	25.8 ^E	13.6	43.5	74.0 ^{E*}	33.4	94.2	79.4	72.6	84.8
20 to 24 [†]	44.0	40.4	47.8	33.7	23.4	45.7	17.2 ^E	11.9	24.1	33.7 ^E	24.1	44.9	35.0 ^E	20.3	53.2	74.1	70.5	77.4

... not applicable

* significantly different from reference category (p<0.05)

[†] reference category

^E use with caution (>0.15 to ≤0.35)

F too unreliable to be published (> 0.35)

Notes: This table is based on responses to two questions: "What other methods of protection did you and your partner use the last time you had sex?" and "Did you or your partner use a condom the last time you had sex?". Respondents could select more than one answer for the methods of protection question; therefore, total percentages exceed 100%. The sample used for estimating the use of other contraceptive methods the last time the respondent had sex among currently sexually active 15- to 24-year-olds who are at risk of pregnancy (i.e., males who reported having had sex with a female and females who reported having had sex with a male) numbered 5,836. Estimates of dual use, which refers to the use of any contraceptive method in combination with a condom, used samples ranging from 86 (other) to 2,784 (oral contraceptive pill).

Source: 2015/2016 Canadian Community Health Survey.

Respondent sex was assessed by asking whether the respondent was male or female; these were the only two response categories, but subsequent CCHS cycles include gender identity.⁷

Sexual orientation was assessed by asking respondents whether they considered themselves to be heterosexual (described as "sexual relations with people of the opposite sex"), lesbian or gay ("sexual relations with people of your own sex"), or bisexual ("sexual relations with people of both sexes").

sults at the p < 0.05 level were considered statistically significant. Bootstrap weights were applied using SAS-callable SUDAAN 11.0 to account for underestimation of standard errors given the complex survey design.⁸

Results

Sexual activity

According to the 2015/2016 CCHS, about 2.2 million 15- to 24-year-olds in Canada (or more than half, 54.1%) reported having had sexual intercourse (vaginal or anal) in the past 12 months (Table 1). Overall, 59.6% reported ever having had sex, but for some it was not in the past 12 months (data not shown). Among those aged 20 to 24, 78.3% reported that they had experienced intercourse, higher than the percentages for 18- to 19- (57.6%) and 15- to 17-year-olds (23.3%) (data not shown).

The likelihood of having had intercourse in the past 12 months also increased with age (Table 1). At ages 20 to 24, 71.5% reported having had sex in the past 12 months, compared to 52.4%

of 18- to 19-year-olds and 20.6% of those aged 15 to 17. Being currently sexually active was also more common among gay males (71.3%) than among heterosexual males (53.2%). For females, the percentages of those who reported being sexually active were comparable regardless of orientation (55.5% of heterosexual females, 58.6% of lesbian females and 62.3% of bisexual females)—equating to about 55 in 100 females being sexually active.

In the Atlantic provinces (61.2% to 63.9%) and Quebec (62.2%), 6 in 10 youth reported having had intercourse in the previous 12 months, while in Yukon (67.7%) and the Northwest Territories (71.4%), this proportion increased to 7 in 10 youth. These estimates are significantly higher than those for the rest

Table 5
Number and percentage of currently sexually active females at risk of pregnancy aged 15 to 24 who reported using emergency contraception in the past year, by selected characteristics, household population, Canada, 2015/2016

	000 [†]	%	95% confidence interval	
			from	to
Total, 15- to 24-year-olds	110.6	10.6	9.1	12.3
Age group (years)				
15 to 17	12.6	11.6 ^E	8.3	15.9
18 to 19	27.2	13.0 ^E	9.4	17.8
20 to 24 [†]	70.8	9.8	8.0	11.9
Province or Territory				
Newfoundland and Labrador	F	F	...	...
Prince Edward Island	F	F	...	...
Nova Scotia	2.3	8.5 ^E	4.3	16.1
New Brunswick	3.8	15.4 ^E	8.0	27.5
Quebec	23.2	8.3 ^E	6.1	11.4
Ontario	43.5	11.8 ^E	8.7	15.7
Manitoba	F	F	...	...
Saskatchewan	3.8	13.8 ^E	7.2	25.0
Alberta	12.0	9.9 ^E	7.1	13.6
British Columbia	14.4	11.3 ^E	7.9	16.0
Yukon	F	F	...	...
Northwest Territories	F	F	...	...
Nunavut	F	F	...	...
Number of partners in past year				
One [†]	58.5	8.2	6.7	10.0
Multiple	51.5	15.8 [*]	12.5	19.8
Used some method of contraception or condom the last time they had sex				
Dual use (condom with another method)	28.4	9.2	6.9	12.0
Condom only [†]	30.9	11.8 ^E	8.5	16.2
Other method (not a condom)	40.3	11.2	8.5	14.5
No contraception or condom	10.0	9.3 ^E	6.0	14.3

... not applicable

[†] reference category

^{*} significantly different from reference category or province/territory significantly different from the rest of Canada (i.e., each province or territory compared with the rest of Canada combined, minus the province or territory)

^E use with caution (>0.15 to ≤0.35)

F too unreliable to be published (> 0.35)

Note: The sample used for estimating past-year use of emergency contraception among currently sexually active females who are at risk of pregnancy (i.e., those who reported having had sex with a male in the past year) numbered 3,107.

Source: 2015/2016 Canadian Community Health Survey.

of Canada (other provinces and territories combined). In contrast, youth in Manitoba (44.5%) and Ontario (50.1%) were less likely to have had intercourse than youth in the rest of Canada.

Multiple partners

In 2015/2016, an estimated 37.1% of the 15- to 24-year-olds who were currently sexually active reported having had more than one partner in the previous 12 months (Table 1). It was more prevalent among males than females to have had multiple sexual partners (42.6% compared with 31.4%, respectively). For males, it was more common to have had sex with more than one partner at older ages. For example, 45.0% of males aged 20 to 24 reported having had multiple sexual partners in the past year, compared with 32.8% of males aged 15 to 17. Among females, the opposite was true. Younger females were more likely to report having had multiple sexual partners in the past year (e.g. 36.7% among females aged 15 to 17, compared with 29.2% among females aged 20 to 24). Over two-thirds of gay males (67.4%) and nearly three-quarters of bisexual males (72.5%) reported having had sex with more than one partner, significantly higher than the estimate for heterosexual males (41.5%). In contrast, the numbers of sexual partners reported by heterosexual and lesbian females were comparable (30.4% and 30.6%, respectively). Among females who identify as bisexual, having multiple partners was more common (47.5%).

Condom use

Among 15- to 24-year-olds who were currently sexually active, 60.1% reported using a condom the last time they had intercourse (Table 2). Males were more likely than females to have used a condom (65.0% compared with 54.9%, respectively). The likelihood of using a condom also decreased with age, from 79.9% among 15- to 17-year-olds to 55.1% among 20- to 24-year-olds. Condom use did not differ by sexual orientation. The prevalence of condom use was higher in Ontario (67.0%) and Saskatchewan (70.2%) than in the rest of Canada, and lower in Quebec (48.0%). Condom use was also more common among those with multiple partners in the past 12 months (66.3%) than it was among those with one partner (55.9%).

Individuals who reported not using a condom the last time they had sex were asked to identify their reasons: 47.6% reported being in a monogamous relationship and 47.2% reported using another method of contraception (Table 3). About one-quarter (24.0%) of non-users thought they were not at risk of an STI while about one in five reported not liking them (21.8%) or thinking they were not at risk of pregnancy (18.2%). No statistically significant differences in rates of condom use were identified by sexual orientation. Males and females also tended to select similar reasons for not using condoms, with some exceptions. Females were more likely to identify monogamy or pregnancy (including trying to conceive) as reasons for not using condoms, whereas males were more likely to select not having one available. The reasons for not using a condom sometimes differed by age or number of sexual partners. For example, just

over half (50.5%) of 20- to 24-year-olds cited being in a monogamous relationship as a reason for not using a condom, significantly higher than the one-third (32.9%) of 15- to 17-year-olds or the 38.3% of 18- to 19-year-olds who selected this reason. A higher percentage of youth aged 20 to 24 identified pregnancy or trying to conceive as reasons for not using condoms than their younger counterparts.

Not liking condoms as a reason for non-use was more commonly reported by people with multiple partners (27.5%, compared to 19.3% with one sex partner). The rates of not using a condom because one was unavailable were nearly three times higher among 15- to 17-year-olds (25.7%) than among youth aged 20 to 24 (8.6%), and this was also more often selected by youth reporting multiple sex partners (14.4%, compared with 8.7% of youth with one sexual partner).

Other contraceptive methods, overall and used in combination with a condom (dual use)

Nearly half (48.3%) of currently sexually active 15- to 24-year-olds reported that they or their partner were using OCPs the last time they had intercourse (Table 4). Use of other contraceptive methods, including withdrawal, IUDs or LARCs, other hormonal contraceptives, like patches or rings, and others, was less common (5% or less). OCP use declined with age, from 53.7% at ages 15 to 17 to 46.2% among those aged 20 to 24. In contrast, use of IUDs or LARCs increased with age. Younger OCP users were also more likely than their older OCP-using counterparts to have also used a condom (72.3% compared with 44.0%, respectively).

Overall, more than one-fifth (22.9%) of 15- to 24-year-olds who were at risk for pregnancy were estimated to have used no condom or other contraceptive method the last time they had sex. Males (18.2%) and 15- to 17-year-olds (6.5%) were less likely to report not using any form of contraception.

Emergency contraception

According to the CCHS, 1 in 10 (10.6%) sexually active females aged 15 to 24 reported having used EC in the past 12 months (Table 5). EC use did not differ significantly by age, geography, use of condoms, or use of other methods of contraception. Conversely, females who reported having had more than one partner in the past 12 months were nearly twice as likely to have used EC (15.8%) as those who reported having had one partner (8.2%).

Discussion

The present study used a population-based sample and is generalizable to the Canadian population in 2015/2016. It provides updated information about several key sexual health indicators.

According to the 2015/2016 CCHS, more than half of 15- to 24-year-olds were currently sexually active (54.1%), nearly two-thirds reported using a condom the last time they had sex

(60.1%), nearly half reported using OCPs (48.3%), and just over one-third reported having had multiple sexual partners during the past 12 months (37.1%). This updated information can help governments and organizations to identify at-risk subpopulations and develop initiatives to encourage safer-sex behaviours.

The 2015/2016 CCHS cycle may not be comparable to earlier CCHS cycles because of changes in collection mode, sampling frames, eligibility for some questions and terminology.⁹ The 2015/2016 survey also defined sexual intercourse as “vaginal and anal sex,” whereas earlier cycles did not provide a definition. As a result of these changes, differences in the percentages of 15- to 24 year-olds reporting having ever had sex (59.6% in 2015/2016 compared with 66%¹⁰ in 2009/2010), using a condom (60.1% compared with 67.9%¹⁰), or having had multiple sexual partners (37.1% compared with 32.5%¹⁰) are difficult to interpret.

Several of this study’s findings, including that condom use declines with age and is less likely among females and persons who reported having had fewer sexual partners, are consistent with the literature.¹⁰⁻¹³ Despite the diversity of contraceptive options, condoms and OCPs are, by a large margin, the most commonly used contraceptive methods reported in the CCHS, and this is also consistent with other research using Canadian samples.^{11,14} According to the CCHS, about half of OCP users (or their partners) reported also using a condom the last time they had sex. This rate of dual use—using other contraceptive methods in combination with a condom—is higher in the present study than reported in other studies, but variation in study design, populations included and definitions may explain some or all of these differences.^{11,14} It should be noted that non-barrier contraceptives, such as OCPs, do not offer protection against STIs, which is why dual use remains important.¹⁵

For individuals in monogamous relationships, there can be a perception that the risk of STIs is reduced and condom use is, therefore, unnecessary.¹⁶⁻¹⁷ In the CCHS, nearly half of non-condom users reported monogamy as a reason for not using condoms. This reasoning can put individuals at increased risk for STIs, since other research has indicated that monogamy is often not an effective STI-prevention strategy.^{17,18}

In 2015/2016, more than one-fifth of sexually active 15- to 24-year-olds at risk of pregnancy reported not using a condom or any other contraceptive method the last time they had sex. Pregnancy or trying to conceive are not likely the reasons for the majority of these unprotected sexual encounters.

About 1 in 10 sexually active females in Canada reported using EC in the past year. This is likely higher than the 11% lifetime EC use reported in the United States, assuming that longer reference periods are correlated with higher estimates.¹⁹ Although there were no differences in EC use by age according to the CCHS data, a non-probability pilot study conducted in Ontario indicated that EC use was more common among people aged 20 to 29 than among either younger or older females. The leading reasons for needing EC were related to condoms breaking and

not using another method of birth control.²⁰ Other Canadian estimates could not be found.

Limitations

Although quality assurance measures were applied at each stage of data collection and processing, and interviewers had extensive training, data from the 2015/2016 CCHS have several limitations. The information is self-reported and subject to social desirability and recall biases. Social desirability is the tendency to modify answers to present a more favourable image. In particular, an unwillingness to disclose sexual orientation on a survey may result in misclassification bias.²¹ Additionally, sexual orientation identities beyond heterosexual, gay, lesbian and bisexual were not ascertained, and “other” was not a response category.²² How these limitations affect estimates of sexual behaviour or orientation remains difficult to quantify, and the perception of what is “desirable” may differ depending on the respondent’s age, sex or other characteristics.²³

In an ongoing effort to maintain relevance and quality, the CCHS was redesigned for the 2015/2016 cycle, with changes affecting content, methodology, survey frames and collection strategies. Therefore, comparisons to earlier CCHS cycles are difficult to interpret.⁹ The data are cross-sectional and thereby permit the observation of associations between variables at only one point in time. Smaller sample sizes in some parts of the analysis may also have reduced the ability to reach statistical significance.

Conclusion

Surveys that collect data about sexual behaviour, contraception and condom use remain important for informing and supporting health promotion and surveillance programs. Substantial numbers of youth in Canada are sexually active and not taking appropriate actions to reduce outcomes that may negatively impact their sexual and reproductive health. The COVID-19 pandemic continues to affect Canadians in wide-ranging and sometimes unexpected ways. In this case, because access to testing and treatment of STIs may be limited because of COVID-19, further emphasis on the importance of practising safe sex may be required. Results from the 2015/2016 CCHS suggest that large proportions of sexually active youth in Canada are at high risk for unintended pregnancy or STIs.

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