Catalogue no. 82-003-X
ISSN 1209-1367

Health Reports

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Release date: January 17, 2024

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DOI: https://www.doi.org/10.25318/82-003-x202400100001-eng

ABSTRACT

Background

Sexual health education delivered in school, provided by parents, or provided by other formal sources has been associated most closely with increased rates of condom use and improvements in many other sexual risk behaviours. Friends and the internet are other information sources, although quality and accuracy are not always as high. Nationally representative Canadian data about where adolescents obtain their sexual health information are lacking.

Data and methods

Weighted data from the 2019 Canadian Health Survey on Children and Youth were used to examine the sources typically used to obtain sexual health information by 15- to 17-year-olds, as well as the prevalence and characteristics of adolescents reporting not having an adult to talk with about sexual health and puberty.

Results

Most 15- to 17-year-olds in Canada reported having at least one source of sexual health information (96.6%). More than half identified school (55.6%) and parents or guardians (51.2%) as sources of sexual health information. The internet (45.9%), friends (36.2%), and health care professionals (20.9%) were other common sources. Whereas 61.2% of adolescents identified more than one source of sexual health information, 3.4% reported not having any source. Nearly 15% of adolescents reported not having an adult to talk with about sexual health or puberty. Differences in sources consulted and having an adult to talk with depended on many factors, including sexual attraction and/or gender diversity, sex, immigrant status, racialized status, lower-income status, strength of parent–adolescent relationship, region of residence, and mental health.

Interpretation

An improved understanding of the sources of sexual health information used by adolescents and identification of characteristics associated with adolescents reporting not having an adult to talk with could help develop strategies to improve sexual health outcomes via better access to sexual health promotion and educational resources.

Keywords

sex-ed, sexuality education, contraception, condoms, puberty

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What is already known on this subject?

- Many studies assessing the efficacy of sexual health education indicate that it contributes to safer sex practices, including increased rates of condom or contraceptive use, fewer sexually transmitted infections, reduced teen pregnancies, delayed sex, and fewer sexual partners.
- The quality, accuracy and completeness of sexual health information can differ by source.
- Where adolescents get their sexual health information can influence their sexual behaviour.

What does this study add?

- It provides updated information about sources of sexual health education for 15- to 17-year-olds in Canada.
- While 97% of adolescents reported having at least one source of sexual health information, some adolescents reported not having an informational source. Males, immigrants, residents of some regions, adolescents who are sexually and/or gender diverse, and some racialized populations could be more vulnerable to experiencing negative sexual health outcomes in the absence of more support and education.

Establishing healthy behaviours to prevent disease and support well-being is easier and more effective during childhood and adolescence than it is later in life. Adolescence is an important development period in which adolescents reach sexual maturity. It is also when youth, on average, begin engaging in sexual activities for the first time.[1] Because adolescents and young adults experience some of the highest rates of sexually transmitted infections (STIs) and unplanned pregnancies,[2,3,4] it is important to ensure access to appropriate resources and related sexual health information to support more knowledgeable decision making and the adoption of healthy sexual behaviours. Sexual health is a key component of overall health and well-being.[5]

Sexual health education provided via formal instruction (sometimes called curriculum-based sexual health education programs) often includes information about the biological aspects of contraception, STIs, condom use, sexual identity, reproductive health, etc.[6] More recently, content on individual and interpersonal (e.g., self-acceptance, healthy relationships) aspects of sexuality has been incorporated.[5] Many studies assessing the efficacy of sex education or condom education programs, typically taught in school, find they contribute to safer sex practices, including increased condom or contraceptive use, fewer STI diagnoses, reduced teen pregnancies, delayed sex, fewer sexual partners, etc.[7-11] Parents and other family members are another common resource that can help adolescents with their sexual health questions,[12-14] although not all adolescents are comfortable talking with their parents.[15] Mothers tend to be more effective teachers than fathers; having discussed sex-related questions with them was associated with a small protective role by increasing rates of contraceptive and condom use.[16] Other sources of sexual health information may not be as effective,[16-18] and sometimes the quality, accessibility, and impact on outcomes differs.[15] For some sources, such as the internet, the quality and completeness of the information vary widely from comprehensive sexual health websites to pornography. In summary, where adolescents get their sexual health information is important and can influence their sexual behaviour.[12,17,18]

The objective of this study was to update Canadian information about sources of sex education self-reported by adolescents and the related resource of having an adult to talk with about puberty and sexual health. This information can help to identify gaps and monitor changing access to sex information. Disaggregating results by sociodemographic and other characteristics can identify differences between groups.

Methods

Data sources

The cross-sectional 2019 Canadian Health Survey on Children and Youth (CHSCY) collected detailed data on the physical health, mental health and related determinants of children and youth in Canada.[19] The CHSCY used a sampling list frame created from the Canada Child Benefit (CCB) files. The CCB files contain a list of all program beneficiaries, along with their names and corresponding contact information. This list was used to directly select the random sample of children and youth. Data were collected using a primarily self-completed electronic questionnaire, although interviewer assistance via the telephone was also available. Collection took place from February to August 2019 and covered the population aged 1 to 17 years living in the 10 provinces and the 3 territories.

Excluded from the CHSCY's survey coverage were children and youth living on First Nations reserves and other Indigenous settlements in the provinces, in foster homes, or in institutions. The CHSCY covers approximately 98% of the Canadian population aged 1 to 17 years in the provinces and 96% in the territories.

Two questionnaires were administered. The first was administered to the person most knowledgeable (typically a parent) and the second was administered directly to the selected respondents aged 12 to 17 years. The overall CHSCY response rate was 52.1%, while that for the 6,915 respondents aged 15 to 17 years was 41.3%. The questions on the sources of sex information were asked only of the 15- to 17-year-olds. The study sample for having an adult to talk with about sexual health information excluded another 60 respondents because they did not answer the question. The sample used for the analyses on the different sources of sex education excluded 61 additional respondents because of non-response. For covariates, "not stated" responses were set to missing and excluded from the frequency analyses, with missingness varying from none (e.g., for the province or territory) to nearly 5% on the sexual and/or gender diversity measure.

Definitions

Main outcomes

Not having an adult to talk with about sexual health, puberty, and sexual development was based on responses to the question: "If you had a question or concern about puberty, your sexual development or sexual health, is there an adult that you could talk with to get help or advice?"

Adolescents were also asked about the sources they used to obtain sexual health information: "Where do you typically get sexual health information?" Eight sources were provided, and respondents could select all that applied: (1) school, (2) a parent or caregiver, (3) friends, (4) printed books or pamphlets, (5) the internet, (6) a health care professional such as a doctor or nurse, (7) nowhere, and (8) other. Responses to these questions were used to distinguish adolescents who reported having at least one source of sexual health information from others who reported not having any source (i.e., nowhere). They were also used to examine the characteristics of adolescents reporting different sources of sexual health information.

Covariates

The selection of covariates was guided by the literature and data availability in the CHSCY and included sociodemographic, adolescent, and adolescent-household characteristics.

Sex at birth was coded as male or female. **Gender** (referring to the current gender that may be different from sex assigned at birth) was coded in the CHSCY as male gender, female gender, and gender diverse and was based on answers provided by the adolescent. It is acknowledged that the gender response categories boy and girl (for children and youth) are preferable.[20] Preliminary analysis of the gender modality of CHSCY respondents found that over 99% of 15- to 17-year-olds in this study who were assigned male at birth also selected "male gender". Similarly, nearly 99% of adolescents in this study who were assigned female at birth selected "female gender". These results create some analysis challenges because of the small numbers of transgender and non-binary youth in the CHSCY. For that reason, a **sexual and/or gender diversity** variable was included to minimize data suppression and allow some analysis of the experiences of transgender and non-binary youth. This categorization follows the example set by another CHSCY study.[21] This composite variable combined each respondent's self-reported sex at birth, gender and sexual attraction information. Sexual attraction was based on responses to the question: "People are different in their sexual attraction to other people. Which best describes your feelings? Would you say you are: 1: Only attracted to males, 2: Mostly attracted to males, 3: Equally attracted to females and males, 4: Mostly attracted to females, 5: Only attracted to females, 6: Not sure." Adolescents who said they had at least some same-gender attraction and adolescents who were coded as transgender or non-binary were grouped together and compared with the subset of cisgender teens who reported they were only attracted to a different gender (Appendix Table A). Cisgender adolescents who were unsure about the target of their attraction (4% of all 15- to 17-year-olds) were coded as missing. Being unsure about their attraction did not result in the exclusion of any records pertaining to transgender adolescents, because group membership could be ascertained based on being transgender or non-binary, despite

Table 1
Number of different sources from which youth typically obtain sexual health information by sex at birth, household population aged 15 to 17, Canada

Number of different sources	Total	95% confidence interval		Male	95% confidence interval		Female†	95% confidence interval	
	%	from	to	%	from	to	%	from	to
0	3.4	2.8	4.0	4.6 *	3.7	5.7	2.1 C	1.5	2.9
1	35.4	33.8	37.0	37.7 *	35.5	40.0	33.0	30.8	35.2
2	25.8	24.4	27.4	25.9	23.9	28.0	25.8	23.8	27.9
3	18.7	17.5	20.0	17.0 *	15.4	18.6	20.6	18.8	22.4
4 or more	16.7	15.5	17.9	14.8 *	13.3	16.5	18.6	16.9	20.4

* significantly different from reference category ($p < 0.05$)
† reference category
C use with caution (coefficient of variation between 15.0% and 25.0%)
Source: 2019 Canadian Health Survey on Children and Youth.

missing information about attraction. Other dimensions of sexual orientation (including sexual identity or behaviours) were not available in the CHSCY.

The CHSCY included the concept of **racialized population** using racial and cultural group information collected in accordance with the *Employment Equity Act* and its regulations and guidelines. Respondents who identified as non-Indigenous were asked to identify which ethnocultural population group they belonged to. Indigenous respondents were coded as missing for these variables. Thirteen response categories were available and used for two separate variables (racialized or non-racialized and non-Indigenous [White]) and five population groups (South Asian, Black, Chinese, non-racialized and non-Indigenous [White], and "other racialized" [composed of individuals identifying as Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, Japanese, groups not defined elsewhere, and people identifying multiple population groups]). Respondents were also categorized as **immigrants or non-permanent residents** versus Canadian-born people.

Indigenous identity was based on information provided by the adolescent. Respondents identifying as First Nations, Métis and Inuit were identified as Indigenous people. Further disaggregation was not possible because of limited sample size.

Canada does not have a coordinated sexual health curriculum.[22] Instead, each province or territory is responsible for its own programming. Geographic differences related to sociodemographics can also affect regional differences in the sources of sexual health information reported. Analyses were disaggregated by **province or territory of residence** where the sample allowed. In one analysis (Table 6), it was necessary to create a territories estimate (three territories combined), since the territory-specific estimates would have required suppression.

Household income (self-reported total from all sources and before taxes and deductions) was categorized as below the 2019 median market income of $58,300 (also called income before taxes and transfers in 2019 constant dollars) or at the median or above.[23]

Family structure, describing the living arrangements of the adolescent, was categorized as living with two parents (biological, step, adoptive, etc.) or not living with two parents (other). The **strength of the parent–adolescent relationship** was based on information about how often the adolescent talked to their parents or guardians about what they did during the day. Adolescents could report having these exchanges regularly (most of the time or often) or irregularly (never, rarely, or sometimes).

The **self-perceived mental health** of adolescents was classified as fair or poor versus good, very good, or excellent based on responses to the question: "In general, how is your mental health?"

The **number of hours of screen time** was categorized as 0 to less than 3 hours, 3 to less than 7 hours, 7 to less than 14 hours, 14 to less than 21 hours, or 21 hours or more based on responses to the question: "In the past 7 days, how much time in total did you spend using any electronic device such as a mobile device, computer, tablet, video game console or television while you were sitting or lying down?"

Analytical techniques

Descriptive statistics using weighted data, adjusted for non-response, were used to examine the prevalence of **not** having an adult to talk with about sexual health, puberty, and sexual development and to study the sources adolescents typically used to obtain sexual health information by selected covariates. Bootstrap weights were applied to account for the underestimation

Table 2
Percentage of youth reporting different sources typically used to obtain sexual health information by selected characteristics, household population aged 15 to 17, Canada

	Total			Male			Female†			Sexually and/or gender diverse			Cisgender with exclusive different-gender attraction†			Immigrant or non-permanent resident			Canadian-born resident†		
		95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval	
Sources identified	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to
School	55.6	54.0	57.3	58.5 *	56.2	60.8	52.7	50.3	55.0	53.7	49.8	57.6	56.2	54.3	58.1	61.9 *	58.0	65.6	54.2	52.4	56.1
Parent or caregiver	51.2	49.6	52.8	46.9 *	44.7	49.1	55.7	53.4	57.9	49.4	45.6	53.2	52.5	50.6	54.3	44.7 *	41.1	48.5	52.6	50.8	54.4
Internet	45.9	44.3	47.5	45.2	43.0	47.4	46.6	44.3	49.0	58.3 *	54.3	62.1	43.9	42.1	45.7	48.1	44.2	52.0	45.4	43.6	47.2
Friends	36.2	34.7	37.8	31.7 *	29.7	33.9	40.9	38.6	43.1	39.7	35.9	43.6	36.2	34.5	38.0	34.9	31.3	38.6	36.4	34.7	38.1
Health care professionals	20.9	19.6	22.3	16.7 *	15.0	18.5	25.3	23.4	27.4	25.9 *	22.5	29.5	20.3	18.8	21.8	19.5	16.6	22.7	21.3	19.9	22.8
Books or pamphlets (printed)	7.0	6.3	7.7	6.1 *	5.2	7.1	7.8	6.8	9.1	10.4 *	8.3	12.8	6.3	5.5	7.1	7.8	6.2	9.8	6.6	5.9	7.5
Other	1.7	1.3	2.2	1.6 C	1.2	2.3	1.7 C	1.2	2.5	1.3 D	0.8	2.3	1.8	1.4	2.4	1.7 D	1.0	3.0	1.7	1.3	2.2
Nowhere	3.4	2.8	4.0	4.6 *	3.7	5.7	2.1 C	1.5	2.9	2.2 D	1.2	3.8	3.0	2.4	3.7	3.7 C	2.4	5.8	3.2	2.7	3.9

* significantly different from reference category ($p < 0.05$)
† reference category
C use with caution (coefficient of variation between 15.0% and 25.0%)
D use with caution (coefficient of variation between 25.01% and 35.0%)
Source: 2019 Canadian Health Survey on Children and Youth.

of standard errors resulting from the complex survey design.[24] Analyses were performed using SAS 9.4 and SUDAAN 11.0.3. Differences between weighted estimates were calculated with t-tests. Reported differences in the text are statistically significant at the $p < 0.05$ level (meaning that they were not likely to have occurred by chance alone). To improve readability, the term "statistically significant" is not typically repeated.

Results

Sources of sexual health information

According to the CHSCY, most 15- to 17-year-olds reported having at least one source of sexual health information (96.6%) (Tables 1 and 2). More than half of adolescents in Canada identified school (55.6%) and parents or guardians (51.2%) as sources of sexual health information (Table 2). The internet (45.9%), friends (36.2%) and health care professionals (20.9%) were also common sources. Books or other printed materials (7.0%) and other sources (1.7%) were less frequently cited.

More than 6 in 10 adolescents (61.2%) identified more than one source of sexual health information (Table 1). Just over one-quarter (25.8%) identified two sources, nearly one in five (18.7%) identified three sources, and one in six (16.7%) identified four or more sources. More than one-third (35.4%) of adolescents reported a single source, and 3.4% reported not having any (Table 1).

While both males and females reported consulting many of the same sources for sexual health information, there were some differences by sex. For example, it was more common for males to report having one source (37.7% versus 33.0% for females) or no typical sources (4.6% versus 2.1% for females). Reporting three (20.6% for females versus 17.0% for males) or four or more (18.6% for females versus 14.8% for males) sources was more common among females.

Also, more males (58.5%) than females (52.7%) identified school as a source of sexual health information. However, higher percentages of females identified parents or guardians (55.7% versus 46.9% for males), friends (40.9% versus 31.7% for males), health care professionals (25.3% versus 16.7% for males), and books (7.8% versus 6.1% for males) (Table 2). The internet (45.2% for males versus 46.6% for females) and other sources (1.6% for males versus 1.7% for females) were identified by similar percentages of males and females.

Other characteristics of the adolescents were also associated with sources of sexual health information. For example, those who are sexually and/or gender diverse relied more on the internet (58.3%), health professionals (25.9%), and printed materials (10.4%) than their cisgender counterparts with exclusive different-gender attraction (43.9%, 20.3% and 6.3%, respectively) (Table 2). Among adolescents born outside Canada, over 6 in 10 (61.9%) reported getting sexual health information from school, and fewer than half (44.7%) relied on their parents or caregiver. The pattern was different with respect to these sources for Canadian-born adolescents, with fewer reporting school as a source (54.2%) and more reporting their parents (52.6%).

The amount of time adolescents spent online was also associated with identifying the Internet as a source of sexual health information (Table 3). For example, fewer than 3 in 10 adolescents who reported less than 3 hours of screen time per week (28.7%) identified the internet as a sexual health information source—about half the estimate (56.1%) for those reporting 21 or more hours of weekly screen time.

There were also some geographic differences in identifying school as a source of sexual health information (Table 4). For example, 60.2% of adolescents living in Ontario and about two-thirds of adolescents from Manitoba (66.9%) and the Northwest Territories (66.7%) identified school as a typical source, significantly above the estimates for the rest of Canada (other provinces and territories combined). By contrast, 39.6% of adolescents from Quebec reported school as a source, which was significantly lower than the corresponding estimate for the rest of Canada.

Table 3
Percentage of youth reporting the internet as a typical source used to obtain sexual health information by number of hours of screen time, household population aged 15 to 17, Canada

		95% confidence interval	
	%	from	to
Total	45.9	44.3	47.5
Hours			
0 to less than 3†	28.7	23.9	34.0
3 to less than 7	38.5 *	35.0	42.0
7 to less than 14	45.5 *	42.2	48.7
14 to less than 21	48.4 *	44.9	52.0
21 or more	56.1 *	52.9	59.3

* significantly different from reference category ($p < 0.05$)

† reference category

Source: 2019 Canadian Health Survey on Children and Youth.

Table 4
Percentage of youth reporting typically obtaining sexual health information from school by province or territory, household population aged 15 to 17, Canada

		95% confidence interval	
	%	from	to
Total	55.6	54.0	57.3
Province or territory			
Newfoundland and Labrador	57.9	50.5	64.9
Prince Edward Island	54.3	47.9	60.6
Nova Scotia	60.4	53.2	67.2
New Brunswick	53.5	46.4	60.4
Quebec	39.6 ‡	34.7	44.8
Ontario	60.2 ‡	58.2	62.1
Manitoba	66.9 ‡	59.6	73.4
Saskatchewan	60.5	53.4	67.2
Alberta	58.6	53.7	63.4
British Columbia	59.0	54.4	63.5
Yukon	63.7	51.8	74.1
Northwest Territories	66.7 ‡	55.5	76.2
Nunavut	65.5	48.7	79.2

‡ significantly different from the rest of Canada, that is, each province or territory compared with the rest of Canada minus that province or territory ($p < 0.05$)
Source: 2019 Canadian Health Survey on Children and Youth.

Prevalence of not having an adult available to talk with about sexual health or sexual development

According to the 2019 CHSCY, 14.9% of adolescents aged 15 to 17 in Canada reported not having an adult available to talk with about sexual health or puberty (Table 5). More males than females reported not having an adult available (16.6% versus 13.2%, respectively). A higher percentage of sexually and/or gender diverse adolescents compared with cisgender adolescents (with exclusive different-gender attraction) also reported not having an adult available (18.3% versus 13.2%, respectively).

Nearly one-quarter (23.0%) of racialized adolescents reported not having an adult to talk with about sexual health or puberty, more than double the estimate for their non-racialized and non-Indigenous (White) peers (11.2%). Similarly, a higher percentage of adolescents who were not born in Canada, compared with those who were, reported not having an adult to talk with (22.5% versus 13.3%, respectively). By contrast, the percentage of Indigenous respondents (13.4%) who reported not having an adult available to talk with about their sexual health or puberty was comparable to the estimate for their non-Indigenous peers (15.0%).

At 24.6%, the prevalence of not having an adult to talk with about their sexual health was about three times higher for adolescents who did not regularly talk about their day with their parents or guardians than it was among those who did (8.5%). Additionally, reporting not having an adult to talk with was more common among those from lower-income households (below the 2019 median market income of $58,300) (19.3%) and those not living with two parents (17.8%) than it was for adolescents from higher-income households (13.2%) and those living with two parents (13.8%).

Mental health was also related to reporting not having an adult available to talk with about sexual health or puberty. Adolescents who reported worse mental health were more likely to indicate not having someone to talk with than those who considered their mental health to be better (22.9% versus 13.4%, respectively).

There was some variation across the country, with about one in five adolescents in British Columbia reporting not having an adult available, significantly above the estimates for the rest of Canada (other provinces and territories combined) (Table 6). By contrast, fewer adolescents in New Brunswick (10.3%) and Nova Scotia (9.9%) reported not having an adult available, lower than the rest of Canada.

Discussion

Considerable research suggests that adolescents who have received sexual health education are better at making informed sexual health decisions, thereby contributing to healthier sexual development and safer sexual behaviours.[7-11] According to this study, most adolescents in Canada reported having access to sexual health information, and the majority had an adult to talk with about this topic.

People from racialized and some ethnic groups, and sexual minorities can be disproportionately affected by negative sexual and reproductive health outcomes.[4,25-28] Gaps in sexual health education for some populations may have contributed to these differences. The current study indicated, for example, that nearly twice as many foreign-born adolescents and adolescents from racialized population groups reported not having an adult available to discuss sex-related concerns as their Canadian-born or non-racialized and non-Indigenous (White) peers. Higher percentages of adolescents who are sexually and/or gender

Table 5
Number and percentage of youth who reported not having an adult to talk with about sexual health information, household population aged 15 to 17, Canada

			95% confidence interval	
	'000	%	from	to
Total	164.9	14.9	13.8	16.1
Sex at birth				
Male	93.6	16.6 *	15.1	18.3
Female†	71.3	13.2	11.7	14.8
Sexually and/or gender diverse				
Sexually and/or gender diverse	34.4	18.3 *	15.6	21.4
Cisgender with exclusive different-gender attraction†	114.0	13.2	11.9	14.5
Population groups				
Non-racialized and non-Indigenous (White)†	83.8	11.2	10.0	12.5
Racialized	80.7	23.0 *	20.7	25.5
South Asian	19.2	22.9 *	18.7	27.7
Chinese	17.4	26.5 *	21.2	32.6
Black	12.3 C	21.4 C*	15.2	29.2
Other racialized	31.8	22.2 *	18.8	26.0
Immigrants or non-permanent residents				
Yes	43.9	22.5 *	19.4	26.0
No (Canadian-born)†	119.1	13.3	12.1	14.5
Indigenous identity				
Yes	6.7 C	13.4 C	9.7	18.4
No†	157.6	15.0	13.9	16.2
Median household Income				
Less than $58,300	60.5	19.3 *	17.1	21.8
$58,300 or more†	104.3	13.2	12.0	14.5
Family structure (who the adolescent lives with)				
Two parents†	111.3	13.8	12.6	15.0
Not two parents (other)	50.6	17.8 *	15.4	20.5
Adolescent discusses their day with a parent or guardian				
Regularly†	56.9	8.5	7.4	9.8
Irregularly	107.1	24.6 *	22.5	26.8
Self-perceived mental health				
Fair or poor	42.6	22.9 *	19.9	26.1
Good, very good, or excellent†	122.2	13.4	12.2	14.6

C use with caution (coefficient of variation between 15.0% and 25.0%)
* significantly different from reference category ($p < 0.05$)
† reference category
Source: 2019 Canadian Health Survey on Children and Youth.

diverse versus their cisgender counterparts (with exclusive different-gender attraction) also reported not having an adult to talk with about sexual health. Youth who belong to some ethnic or racialized groups, who are immigrants, or who are sexually and/or gender diverse may not always have the understanding and support of family—therefore, they may not be able to discuss their sexual and reproductive health.[27-29] The provision of sexual health education at school, particularly if it is culturally sensitive and inclusive, can help ensure adolescents who might not otherwise have access to this valuable information can obtain it. Similarly, for adolescents born outside Canada, school can be an especially important source of sexual health information.

Results from this study align with others showing that any youth, regardless of sexual experience, sexual attraction, gender identity, race or ethnicity, can find talking with their parents about sex embarrassing.[17,30] Parents can also find these conversations challenging, owing to their limited knowledge, discomfort with the subject, or concerns about appropriateness or necessity.[31] This helps to explain why nearly half of adolescents do not identify their parents as a source. Talking regularly with parents does, however, seem to help foster communication between parents and children,[32] a finding echoed in this CHSCY study showing that adolescents who talked regularly with their parents were less likely to report not having an adult to talk with about their sexual health concerns.

Male and female adolescents also tended to differ in where they obtained their sexual health information. Females tended to rely more often on their parents, friends and health professionals, whereas more males reported school as a source. Also, not having an adult to discuss their sexuality questions with was more than twice as common among males than females. Other research suggests that this sex difference can matter because the subjects covered have been shown to differ depending on the provider and sex of the recipient (e.g., more females receive guidance on how to say no and where to obtain birth control, whereas males are more likely to learn how to use condoms).[13,33,34] These sex differences can put adolescents not receiving a more complete sexual health education curriculum at risk.

Table 6
Percentage of youth who reported not having an adult to talk with about sexual health information, household population aged 15 to 17, Canada

		95% confidence interval	
	%	from	to
Canada	14.9	13.8	16.1
Newfoundland and Labrador	12.3 [C]	8.4	17.6
Prince Edward Island	13.4 [C]	9.7	18.3
Nova Scotia	9.9 [C‡]	6.4	14.9
New Brunswick	10.3 [C‡]	6.8	15.3
Quebec	13.1	10.1	16.9
Ontario	15.4	14.0	16.8
Manitoba	14.3 [C]	9.9	20.3
Saskatchewan	14.5 [C]	10.3	20.1
Alberta	14.1	11.1	17.8
British Columbia	19.3 [‡]	15.9	23.1
Territories	18.7 [C]	12.6	27.0

[C] use with caution (coefficient of variation between 15.0% and 25.0%)
[‡] significantly different from the rest of Canada, that is, each province or the territories compared with the rest of Canada minus that province or the territories ($p < 0.05$)
Source: 2019 Canadian Health Survey on Children and Youth.

This study found some regional differences in the reporting of school as a source of sexual health information and in the rates of not having an adult to talk with about this topic. Education is a provincial or territorial responsibility; as a result, the curriculum is not standardized and varies across Canada. For students aged 17 in Quebec, the existence of pre-university and vocational career programming offered by Collège d'enseignement général et professionnel (CEGEP) might mean courses with sexual health education content are not always taken. This could help explain the lower numbers of Quebec adolescents reporting school as a source, although other factors may also have contributed.

Strengths and limitations

This short study has several strengths, including that the CHSCY is a national, population-based survey that covers a wide range of subjects, allowing for a detailed look into the health and sociodemographic characteristics of Canadian adolescents' use of different sources of sexual health information. Nevertheless, results of this study should be interpreted in light of several limitations.

Some variables relevant to the study of sexual health and related information were not collected by the CHSCY, including religiosity,[33] details about the sexual health education provided, the timing of the sexual health education, and information about an adolescent's previous sexual behaviours and experiences.

The data are cross-sectional and thereby permit the observation of associations between variables at only one point in time. Information was self-reported and has not been verified, and it can be subject to recall and social desirability biases. The use of survey weights adjusted for non-response helped to ensure that the dataset more accurately represented the target population.

While the CHSCY was designed to study the health of children and youth and boasts a comparatively large sample, the problem of small sample sizes was not completely eliminated. This issue sometimes necessitated the use of dichotomized variables and meant the study could not examine certain at-risk and understudied subpopulations, including people with intellectual disabilities,[35] people with autism,[36] and Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer and/or Questioning + (2SLGBTQ+) adolescents.[27] Disaggregated data about gender and sexual diversity can be of lower quality if the collected sample size is too small. In such cases, it is helpful to combine gender and sexually diverse respondents to produce estimates related to the broader 2SLGBTQ+population. Small samples or effect sizes in other parts of the analysis may also have affected significance testing.

Concluding remarks

This study provides an updated picture of the sources used by adolescents in Canada to obtain sexual health information. It also examines the characteristics of adolescents who reported not having an adult to talk with about their sexual health or puberty. While the majority reported having access, there were some adolescents who reported not having an adult they could talk with or another informational source. Adolescents who were male, were born outside Canada, were sexually and/or gender diverse, were racialized, were experiencing fair or poor mental health, were from lower-income households, talked infrequently with their parents, and resided in some regions could be more vulnerable to experiencing negative sexual health outcomes in the absence of more support and education. The differences identified in this study could help develop more tailored curricula or other resources to help all adolescents have the information and support they need to make more informed choices about sex.

Appendix Table A

Coding rules of the sexually and/or gender diverse composite variable depending on the respondent's self-reported gender, sex at birth, and sexual attraction

	Value assigned to sexually and/or gender diverse variable		
	Yes	No	Missing
Among adolescents who reported their gender as male and			
their sex at birth as male (cisgender), and their sexual attraction as:			
Only, somewhat, mostly, or equally attracted to males	✓	…	…
Only attracted to females	…	✓	…
Not sure	…	…	✓
their sex at birth as female (transgender), and their sexual attraction as:			
Only, somewhat, mostly, or equally attracted to females	✓	…	…
Only attracted to males	✓	…	…
Not sure	✓	…	…
Among adolescents who reported their gender as female and			
their sex at birth as female (cisgender), and their sexual attraction as:			
Only, somewhat, mostly, or equally attracted to females	✓	…	…
Only attracted to males	…	✓	…
Not sure	…	…	✓
their sex at birth as male (transgender), and their sexual attraction as:			
Only, somewhat, mostly, or equally attracted to males	✓	…	…
Only attracted to females	✓	…	…
Not sure	✓	…	…
Among adolescents who reported their gender as gender diverse and			
their sex at birth as male and their sexual attraction as:			
O nly, somewhat, mostly, or equally attracted to females	✓	…	…
Only, somewhat, mostly, or equally attracted to males	✓	…	…
Only attracted to males	✓	…	…
Only attracted to females	✓	…	…
Not sure	✓	…	…
their sex at birth as female and their sexual attraction as:			
Only, somewhat, mostly, or equally attracted to females	✓	…	…
Only, somewhat, mostly, or equally attracted to males	✓	…	…
Only attracted to males	✓	…	…
Only attracted to females	✓	…	…
Not sure	✓	…	…

… not applicable

Source: 2019 Canadian Health Survey on Children and Youth.

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