Public Health Agency of Canada | Agence de la santé publique du Canada

Mpox Immunization Coverage Survey among 2SLGBTQI+ and Men who have sex with men

Methodological Report

Prepared for the Public Health Agency of Canada
Supplier name: Advanis Inc.
Contract number: 6D142-226171
Contract value: $132,136.55 (including HST)
Award date: March 3, 2023
Delivery date: 20th of July, 2023

Registration number: POR 139-22
For more information on this report, please contact Health Canada at:
por-rop@hc-sc.gc.ca

Ce rapport est aussi disponible en français.

Canada

TABLE OF CONTENTS

Mpox Immunization Coverage Survey among 2SLGBTQI+ and Men who have Sex with men

Methodological Report

Prepared for the Public Health Agency of Canada

Supplier Name: Advanis Inc.
July 2023

This report presents the methodological details for the Mpox Immunization Coverage Survey among 2SLGBTQI+ and men who have sex with men (MSM), conducted by Advanis Inc. on behalf of the Public Health Agency of Canada (PHAC). The survey was administered among 5,683 members of the adult Canadian general public, between March 10 and April 9, 2023.

Ce rapport est aussi disponible en français sous le titre: Enquête sur la couverture vaccinale contre la variole simienne chez les 2SLGBTQI+ et les hommes ayant des rapports sexuels avec des hommes : rapport méthodologique

Health Canada, CPAB
200 Eglantine Driveway, Tunney's Pasture
Jeanne Mance Building, AL 1915C
Ottawa, Ontario K1A 0K9

Catalogue Number:
H14-443/2023E-PDF
International Standard Book Number (ISBN):
978-0-660-49428-9

Related publications (registration number: 22-14):
Catalogue number: H14-443/2023F-PDF (Methodological Report, French)
International Standard Book Number (ISBN): 978-0-660-49429-6 (French)

1. Executive Summary

1.1 Background

With the emergence of the multi-country outbreak of mpox (formerly referred to as "monkeypox") in May 2022, Canada launched an unprecedented immunization campaign to help control the spread of the virus[1]. In particular, the vaccination campaign has targeted key, at-risk populations following the National Advisory Committee on Immunization's (NACI) guidance for prevention among 2SLGBTQI+ and men who have sex with men (MSM) communities, with some variance in the vaccination approach in provinces and territories. Currently, vaccination coverage estimates among these populations are unknown at the national level and surveillance information is required in order to monitor the mpox situation in Canada. This will help inform public health vaccination programs and prevention strategy initiatives.

The purpose of this survey was to provide information on mpox vaccine coverage for the 2SLGBTQI+ as well as MSM adult populations, and to help understand the knowledge, attitudes, and beliefs concerning mpox vaccines (e.g., vaccine effectiveness, vaccine safety, vaccine relevance). This includes exploring reasons for vaccine hesitancy and vaccine refusal and the impact this has on vaccine uptake as well as obstacles for non-vaccination of mpox. Its purpose was also to identify risk factors for transmission of mpox as well as these populations' willingness to limit high-risk activities amid the current mpox outbreak.

The survey applied a sex and gender-based analysis plus (SGBA+) lens, considering the multiple identities and contextual factors of 2SLGBTQI+ people or those who are MSM living in Canada[2].

1.2 Objectives

The primary objective of this surveillance survey was to establish an enhanced surveillance tool that will help gain a better understanding of mpox immunization coverage-related information for 2SLGBTQI+ and MSM adult populations living in Canada.

Specifically, this surveillance survey aimed to collect information on:

- Mpox immunization status
- Intent to get vaccinated for those not yet vaccinated against mpox
- Reasons for non-vaccination of mpox (including barriers)
- Knowledge, attitudes and behaviours toward mpox vaccines
- Trusted sources of information on mpox vaccines
- Inequalities in vaccination uptake by socio-demographic characteristics

The second survey objective was to document the socioeconomic, cognitive, and motivational factors associated with low uptake of the mpox vaccine among these two (2) at-risk populations.

[1] https://www.canada.ca/en/public-health/services/diseases/monkeypox.html
[2] https://women-gender-equality.canada.ca/en/free-to-be-me/federal-2slgbtqi-plus-action-plan/survey-findings/quick-stats.html

1.3 Methodology

Data collection started March 10, 2023, and ended April 9, 2023, and was conducted by Advanis.

A sample of 27,747 Canadians aged 18 or older were called through the use of Advanis' General Population Representative Sample (GPRS) and invited to participate in an online survey. To reach members of the 2SLGBTQI+ population, recruitment was completed using targeting information Advanis had profiled within the GPRS database to ensure quota minimums were met. A total of 15,805 recruits agreed to participate and received an email or SMS inviting them to take part in the survey.

Of those invited, 5,721 answered the online survey. However, 35 were under 18 years old and 3 were removed from the data due to non-valid or inappropriate verbatim responses that made it impossible to identify their gender. Hence, 5,683 were considered to have completed the survey. Of those, 734 (12.9%) were non-heterosexual members of the 2SLGBTQI+ population, 47 (0.8%) were heterosexual members of the 2SLGBTQI+ population (e.g., a heterosexual transgender person) and 13 (0.2%) were heterosexual men who had male sexual partners in the last 12 months.

Survey results were weighted by age group, gender and sexual orientation. The results are based on responses from 5,683 Canadians across all provinces and territories. Recruitment ensured quotas were reached for key sub-populations to ensure statistical relevance and representativeness.

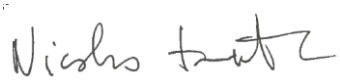
1.4 Contract Value

The contract value for this study was $132,136.55 (including HST).

1.5 Political Neutrality Requirement

I hereby certify as a Senior Officer of Advanis that the deliverables fully comply with the Government of Canada's political neutrality requirements outlined in the Communications Policy of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research.

Specifically, the deliverables do not contain any reference to electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leader.



Nicolas Toutant
Vice President, Research and Evaluation
Advanis
nicolas.toutant@advanis.ca

2. Methodology

The Public Health Agency of Canada (PHAC) sought to gain a better understanding of mpox immunization coverage-related information for 2SLGBTQI+ people and MSM living in Canada. PHAC contracted Advanis to conduct the *Mpox Immunization Coverage Survey among 2SLGBTQI+ and Men who have Sex with men*. It was initially planned to be a 10-minute online survey of Canadians 18 years and older.

The project used Advanis' proprietary General Population Random Sample (GPRS), using an IVR-to-Web and CATI-to-Web methodology to contact potential respondents. This consists of using our proprietary interactive voice response (IVR) system and our in-house CATI call center to conduct random digit dialing (RDD) to recruit respondents to be part of the GPRS sample. This method is probability-based; that is, every recruit has an equal and known chance of being invited to participate. Advanis then used a two-step approach where people who are part of our GPRS sample were recruited by telephone to participate in an online web survey. There can be an unknown bias since not everyone agrees to participate in studies. The inherent potential bias of our GPRS sample is not different than for other random sampling approach.

Respondents were recruited to the online survey by either email or SMS (text message), based on their preference stated at the time of the phone recruitment. After the initial invitation, if respondents had not yet completed the survey, they were sent a reminder message. Reminder messages were sent 3, 6 and 9 days after the initial recruitment.

To reach members of the 2SLGBTQI+ population, recruitment was completed using targeting information Advanis had on profile within the GPRS database to ensure quota minimums were met.

2.1 Survey Questionnaire

The questions for this survey were designed by the Public Health Agency of Canada and supplied to Advanis. The questionnaire contained questions about mpox vaccination status, barriers to vaccination, knowledge attitudes and behaviours related to vaccination, demographics, and questions about general health. Most survey questions were only shown to non-heterosexual respondents. Indeed, the questionnaire contained core immunization questions that were only shown to non-heterosexuals or heterosexuals who had sexual partners of the same sex in the last 12 months.

The Government of Canada's standards for pre-testing were adhered to, pretests were conducted in both English and French. The pretest was conducted on March 10, 2023. During this pretest, 143 people were recruited by phone in English and French. This led to 48 completed online surveys (28 French, and 20 English). After the pretest it was decided to change the "White European" level at question A4a asking for the racial or ethnic community of the respondent, to "White (e.g., European, Caucasian, etc.)" to avoid any confusion among respondents. Questions C12a and C13 were also moved in the questionnaire after the pretest to allow more respondents to answer them. No further changes were made to the survey and the pretest data was retained in the final dataset.

2.2 Sampling and Administration

The target audience for this project included:

- 2SLGBTQI+ community members - estimated 4% of Canadian population[3] and
- Men who have had sex with men (MSM) based on past experiences within the past 12 months (regardless of whether they self-identify as 2SLGBTQI+ or not) - estimated 3.3% of men or 1.7% of the Canadian population[4][5].

To survey the MSM group, Advanis had to invite men from the general population to participate in the survey. People belonging to the MSM group were identified by their survey responses to screening questions.

Overall, 27,747 phone numbers were called and 15,805 people were recruited to participate in the survey. Of those, 5,901 completed the online survey, but 35 were under 18 years old and 3 were removed from the data due to non-valid responses (e.g., a person giving a non-valid or inappropriate verbatim response when identifying their gender). Hence, 5,683 (4,660 in English and 1,023 in French) were considered to have completed the survey for an overall response rate of 36.2%, and a margin of error of +/-1.3% (19 times out of 20 at a 95% confidence interval). The average length of the survey was 5.3 minutes (8.8 minutes for participants who saw the core immunization section of the survey).

Table 1 provides information on the number of invitations sent according to the information we had in the sample prior to data collection.

Table 1: Invitations sent by group

Population Group Field Details	Total	Flagged as LGBTQ*	Not flagged as LGBTQ*
Invited	15,805	804	15,001
Screened Out**	38	1	37
Completed	5,683	411	5,272
Response rate (completed + screened out / invited)	36.2%	51.2%	35.4%

*These results are taken from sample values that were available prior to data collection. We used known characteristics from our GPRS sample to identify if potential respondents were LGBTQ or not. This information was only used to target respondents and may not align with survey responses on gender and sexual orientation. This is then different than the 2SLGBTQI+ definition taken from survey responses.
**Screened out participants are the 35 under 18 years old and the 3 who gave non-valid verbatim responses.

The targeted number of completed surveys was 5,500 Canadian adults. More specifically, it was 500 respondents from the 2SLGBTQI+ population (but which might also include MSM) and 5,000 men which include a subgroup of MSM. In total, 5,683 responses were obtained (4,660 in English and 1,023 in French) and 1,343 answered the core immunization section of the survey. These 1,343 include anyone who could not be included in **any** of these categories:

- heterosexual
- never had a sexual experience with a person of the same sex, and

[3] https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2021062-eng.htm
[4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7085112/
[5] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7085112/#R25

- did not receive a vaccine for mpox since June 2022.

Respondents refusing to give an answer on whether they had received the mpox vaccine or if they had sexual experiences with a person of the same sex did not see the core immunization section of the survey.

Table 2 presents the number of completed surveys by population groups.

Table 2: Completed surveys by population groups

Population Group	Number of respondents	Proportion (%)	Margin of error
2SLGBTQI+ and not heterosexual	734	12.9%	+/-3.6%
2SLGBTQI+ and heterosexual*	47	0.8%	--
Heterosexual cisgender men	4,535	79.8%	+/-1.5%
Heterosexual cisgender women	109	1.9%	+/-9.4%
Information not available**	258	4.5%	--
Total	5,683	100%	+/-1.3%

*Includes people who are heterosexual but are considered 2SLGBTQI+ because of their gender (e.g., a transgender, heterosexual person).
** These respondents did not provide a response when asked to give their gender or sexual orientation.

Among the 781 2SLGBTQI+, 330 (42 %) were flagged as LGBTQ in our sample prior to data collection. Among the 587 MSM (men having sex with men) respondents (see section 4), 196 (33 %) were flagged as LGBTQ.

2.3 Weighting and Data Cleaning

For this project, data was gathered for gender, sexual orientation and age. Statistics Canada does not provide this level of precision with data available to the public online. However, the census contains information on the gender identity of Canadians for 2021 and the Canadian Community Health Survey (CCHS) published information about sexual orientation for 2015-2018. We used these two sources to create population proportions for this survey's weights.

A direct weighting approach was used. The data was weighted by age group (less than 35 years and 35+ years) and by the following population groups:

- Cisgender men (heterosexual)
- Cisgender men (homosexual)
- Cisgender men (bisexual, asexual, pansexual and other sexual orientation)
- Transgender men
- Non-binary persons, two-spirit persons, bi-spirit persons, persons of other genders

Due to low numbers of women in the survey sample and for analysis needs, women (*n* = 235) were not included in the weighted analysis. The non-binary, two-spirit/bi-spirit, and other genders population is small, and data aggregation to a two-category gender variable (denoted by the "+" symbol) is often used to protect the confidentiality of responses provided. Non-binary persons, and two-spirit/bi-spirit persons, and persons of other genders were randomly classified as men+ and as women+ (total *n* = 40) to reflect the categories of the Statistics Canada Census of 2021. This results in two gender categories: "men+" and "women+". The men+ category includes cisgender men, transgender men and 50 % of non-binary person,

two-spirit persons, bi-spirit persons and persons of other genders. The women+ category includes cisgender women, transgender women and 50 % of non-binary persons, two-spirit persons, bi-spirit persons and persons of other genders.

Those classified as women+ were not included in the weighting and analysis either. Respondents who did not provide information on their gender or sexual orientation were also not included in the analysis (*n* =249). To do so, the data was weighted to the total number of respondents to the survey, but out-of-scope units (n=524) were given a weight of 0 so they have no impact on the weighted percentages and distribution.

This allows the out-of-scope units to be kept in the database as initially requested by PHAC. We then have the same unweighted base and weighted base (n=5,683) when looking at all the data collected. When looking at the weighted cases only, the unweighted base is n=5,159 and the weighted base is still n=5,683. We used the data from the CCHS to find the proportions of heterosexual males, homosexual males, and bisexual males. To do so we needed to redistribute the middle age group to match the 2021 Census distribution. The values attributed to the different weight categories can be found in Appendix A.

Data cleaning involved creating variables for each of the specialized populations, so that analysis can be easily performed for each group. “Other, specify” comments were reviewed and back coded into existing levels where required (for questions s2 and s3). For question c5b, verbatim responses were reviewed, and additional categories were added to the question based on the responses because “Other” responses exceeded 10 %; and corresponding variables were created.

We were not able to conduct non-response adjustments since the non-respondent’s information is unknown. No data was available to do such a correction. There were no extreme weights. The group that had the biggest weight was also the group that had the most answers. Considering that, this should not have a big impact on the data.

2.4. Quality Control

Advanis employs a number of quality control measures to ensure success across the entire life cycle of the project. These measures are detailed below.

Survey Programming: Advanis utilizes technology to maximize quality control in survey programming. Having developed a proprietary survey engine tool, Advanis professionals are able to design and program a survey in a browser-based environment, eliminating the need to involve a programmer who is less familiar with the survey subject matter. The survey was thoroughly pre-tested by Advanis’ project team members, as well as by non-team members (non-team members provide “fresh eyes” for catching potential errors).

CATI Methodology: The CATI recruit script was programmed on Advanis’ proprietary CATI platform with no unforeseen challenges. Advanis was able to leverage its experience for the survey programming and the reminder process to achieve high quality standards. Advanis implemented the following to ensure the highest quality data collection:

- Trained the interviewers to best understand the study’s objectives and to ensure that they were able to pronounce and understand the survey wording.
- Detailed call records were kept by the automated CATI system, and were monitored for productivity analysis (i.e., not subject to human error).

- The recruit scripts were pre-tested for best possible flow.
- Our average interviewer employment tenure is very high compared to industry standards, resulting in a team of interviewers who are more experienced and knowledgeable regarding the target audience.
- Advanis' Quality Assurance team listened to the actual recordings of ten percent of completed surveys and compared the responses to those entered by the interviewer, to ensure that responses were properly recorded. This is in addition to the live monitoring done by field supervisors.
- Team Supervisors conduct regular, more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team.

To ensure high interview quality, our interviewers are trained to use various interviewing techniques. As well as maintaining a professional attitude, our interviewers must also be convincing, read word-for-word, take notes, systematically confirm the information given and listen to the respondent. Advanis has also created internal tools within the survey script for interviewers allowing them to use the phonetic alphabet to confirm email address spelling, (e.g., a for alpha, b for bravo, etc.) to help reduce the amount of bounced email addresses. However, should bounced emails occur, Advanis also has developed additional tools that allow for someone to re-listen to the recording and easily adjust to correct the email address.

Web Methodology: All Advanis web surveys are hosted internally by Advanis, and employ a rigorous and stringent set of data collection control mechanisms to ensure the highest quality for the data collected, including:

- Respondents have a unique access code to ensure that only that participant can complete the online survey.
- Extensive internal logic checks are programmed directly into the survey to ensure logical responses.
- Web surveys are implemented using Advanis' proprietary software (which is designed to handle complicated survey formats).
- Advanis administered a detailed internal test and an external pretest to ensure that the survey instrument was working as planned.
- Tested the questionnaire in multiple browsers and provided PHAC with a link so they could do internal testing.

Data Handling and Reporting: For the data collected, Advanis develops rules to check the validity of the data. These rules include items such as:

- Time taken to complete the survey
- Checking for verbatims that are gibberish or don't make sense
- And, of course, rigorous checks are completed to ensure the data is accurate and error-free according to the questionnaire logic (skip patterns).

All data cleaning performed on projects are outlined and tracked in an internal spec document so they can be QA'd and signed off on. The original raw data file is never overwritten, so that if an error is discovered in our code, we can quickly and easily rerun things to produce a new data file. Individuals developing code incorporate internal checks in their code (e.g., crosstabs) to ensure the adjustment had the desired effect. In addition, all recordings are reviewed by another team member or technical specialist for accuracy.

3. Non-response Bias and Limitations

Non-response bias occurs when non-responders differ in a meaningful way from respondents and this difference impacts the information gathered. It is difficult to assess the presence of non-response bias since information about why non-responders did not participate is usually unavailable. That said, one way to gauge the potential impacts of non-response bias is to evaluate if the sample is representative by comparing the respondents' characteristics and gauge if they reflect known population characteristics. Where possible, we can check the distribution of respondents across various demographics (e.g., age and gender) and geographic categories and compare those distributions against known population characteristics. If the variation is fairly small and we have no reason to believe there are other factors impacting respondents' willingness to participate, we can conclude that the likelihood of non-response bias impacting the information gathered in the study is minimal. This is the case with the current study.

Several strategies were employed to increase response rates and reduce the effects of non-response bias. This includes:

- Recruiting respondents by telephone.
- Outpulsing a local phone number (rather than a toll-free number) which increases pick-up rates (reducing call screening).
- Systematically setting the next call date and time based on the outcome of the current call, which ensures that each respondent is called methodically across days of the week and times of the day. Especially for respondents that are difficult to reach, this maximizes the likelihood of reaching them.
- Collecting both email address and telephone number for recruitment so that if the email address does bounce, we have the opportunity to contact them via SMS message if they agree.
- Offering the survey in both official languages (English and French) to maximize ease of completion.

4. Guidelines for Analysis and Release

When doing an analysis, it is important to align the analysis plan with the weighting scheme. The weights adjust the data to better reflect the population based on parameters that have been chosen to maximize the level of detail without creating distortions due to extreme weights (an extreme weight will occur when a population group is represented by a proportionally smaller subset of respondents compared to other population groups, thus introducing an important risk of bias due to their specific profile).

For this survey, the basic sociodemographic information that should be used in the analysis of results are:

- Age group
    - 35 years or younger
    - 35+ years
- Gender/Sexual Orientation profile
    - Cisgender men (heterosexual)
    - Cisgender men (homosexual)
    - Cisgender men (bisexual, asexual, pansexual and other sexual orientation)
    - Transgender men
    - 50 % of non-binary persons, two-spirit persons, bi-spirit persons and persons of other genders

- Women+ (cisgender women, transgender women, and 50 % of non-binary persons two-spirit persons, bi-spirit persons and persons of other genders) and cases with missing gender or sexual orientation information

Using groupings other than the ones described above could potentially produce distorted data. As these results would be inaccurate based on how the weights were calculated, we strongly advise not to report any results that are not aligned with these specified categories.

The banners provided include the groupings specified above. However, at the client's request they also included an MSM (men having sex with men) variable. Any persons who was not heterosexual from the 50% of non-binary persons, two-spirit persons, bi-spirit persons, or persons of other genders was considered MSM. For this banner break, it is to be noted that transgender men and 50% of non-binary persons, two-spirit persons, bi-spirit persons, and persons of other genders were not weighted based on sexual orientation. Therefore, this subset needs to be interpreted with caution because it is not generalizable and cannot be extrapolated to the population.

Results for question S4a and S4b (see appendix B) and any variable created using responses to those questions should also be interpreted with caution. Indeed, social desirability bias might have affected responses and any analysis must be mindful of its potential impact on the results.

Any results with an unweighted base size (denominator) of less than 30 should be interpreted with caution..[6-7] This is due to the increased coefficient of variation and, hence, there are larger confidence intervals around results with smaller bases. Furthermore, for confidentiality purposes, any results with a base of less than 10 should be suppressed.

For all estimates based on a denominator size of 30 or more, the following guidelines for data suppression related to coefficient of variations (CV) should be used when reporting estimates:[6]

Type of Estimate	**CV (in %)[8]**	**Guidelines**
Acceptable	CV ≤ 15.0	Estimates can be considered for general unrestricted release. Requires no special notation.
Marginal	15.0 < CV ≤ 35.0	Estimates can be considered for general unrestricted release but should be accompanied by a warning cautioning users of the high sampling variability associated with the estimate.
Unacceptable	CV > 35.0	It is recommended to not release estimates of unacceptable quality.

Examining the confidence interval of the estimate will provide further indication of the quality of the estimate in terms of the variability. Long confidence intervals indicate less precision in the estimate while smaller confidence intervals indicate greater precision. When assessing the trustworthiness of sample proportions, the confidence intervals of estimates should be taken into account.[6]

[6] CDC. National Center for Health Statistics Data Presentation Standards for Proportions. 2017. Available from: https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf

[7] Statistics Canada. Canadian Community Health Survey User Guide. 2021.

[8] CV= (standard error / coefficient) * 100 where the coefficient is either the regression coefficient or the proportion estimate.

4.1 Rounding Guidelines

Users are urged to adhere to the following rounding guidelines for estimates.

- Estimates in the main body of a statistical table are to be rounded to the nearest hundred units using the normal rounding technique. In normal rounding, if the first or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is raised by one. For example, in normal rounding to the nearest 100, if the last two digits are between 00 and 49, they are changed to 00 and the preceding digit (the hundreds digits) is left unchanged. If the last digits are between 50 and 99, they are changed to 00 and the preceding digit is increased by 1.
- Marginal sub-totals and totals in statistical tables are to be derived from their corresponding un-rounded components and then are to be rounded themselves to the nearest 100 units using normal rounding.
- Averages, rates and percentages are to be computed from un-rounded components (i.e. numerators and/or denominators) and then are to be rounded themselves to one decimal using normal rounding. In normal rounding to a single digit, if the final or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is increased by 1.
- Under no circumstances are un-rounded estimates to be published or otherwise released by users. Un-rounded estimates imply greater precision than actually exists.

Appendices

Appendix A: Weights

Table 3: The weights

Population Group	Unweighted base	Weight	Weighted base
Under 35 years			
Cisgender men (heterosexual)	863	1.952	1,685
Cisgender men (homosexual)	90	0.399	36
Cisgender men (bisexual, asexual, pansexual, and other sexual orientation)	94	0.303	28
Transgender men*	14	0.484	7
50% of non-binary persons, two-spirit persons, bi-spirit persons, persons of other genders*	14	0.427	6
Women+ (cisgender women, transgender women, and 50 % of non-binary persons two-spirit persons, bi-spirit persons, and persons of other genders) and cases with missing gender or sexual orientation information	123	0.000	0
35 years or older			
Cisgender men (heterosexual)	3,671	1.037	3,807
Cisgender men (homosexual)	231	0.302	70
Cisgender men (bisexual, asexual, pansexual, and other sexual orientation)	138	0.276	38
Transgender men*	18	0.216	4
50% of non-binary, two-spirit, bi-spirit, other gender*	26	0.074	2
Women+ (cisgender women, transgender women, and 50 % of non-binary persons two-spirit persons, bi-spirit persons, and persons of other genders) and cases with missing gender or sexual orientation information	401	0.000	0

***Please note:** Transgender men and 50% of non-binary, two-spirit, bi-spirit, other gender are combined in banners for the data tables.

Appendix B: Questionnaire

Mpox Immunization Coverage among 2SLGBTQI+ and MSM

Government of Canada

Languages: English, French

Section Login page

Show if isWeb (custom: <<current_mode_is("web")>>)

wcag, LoginTCH

Consent

wcag *Show if OfferWCAG (custom: <<offer_wcag()>>)*

Si vous préférez répondre à l'étude en français, veuillez cliquer sur français

You have been invited to participate in a public health study of knowledge, attitudes and experiences about public health and sexual health issues. The Public Health Agency of Canada has contracted an independent public opinion research company, Advanis (http://advanis.net) (opens in a new window), to conduct the research on the Public Health Agency of Canada's behalf. TellCityHall is one of Advanis' data collection methods.

The online survey will take approximately 10 minutes to complete and is voluntary and confidential. Your responses will not be linked to any personally identifiable information, in an effort to protect your anonymity.

For more information about this survey and how the data will be used, please see below. If you agree to participate in this survey, please click on the following button to continue:

Privacy Statement

Participation in this study is voluntary and you can withdraw at any time without any impact to you. There will be no consequences if you decide not to participate. You may skip questions that you do not feel comfortable answering by clicking "Prefer not to answer", where applicable. You may also complete the survey in several sessions and from different devices. If you get interrupted while doing the survey, you can click on the same link to pick up right where you left off. Once data has been collected, please note that researchers have no way of knowing which data belongs to which participant. The results from partially completed or abandoned surveys will be deleted.

What You Will Be Asked to Do

You will be asked to complete a survey to answer some demographic questions and questions related to the mpox and COVID-19 vaccines. Please note that certain questions will be asked at the start of the survey to determine if you are eligible to participate. If you are not eligible to participate, your data will be removed and destroyed.

What are the benefits of participating?

By participating, you are helping to generate data which will help to improve the health and well-being of LGBT2Q people and MSM by providing public health authorities with the information they need to ensure health equity.

Why are we collecting your information?
The aim of this survey is to gain understanding about knowledge, attitudes, and experiences related to emerging public health and sexual health topics in Canada.

You will be asked questions, such as age, gender, sexual orientation and ethnicity in order to better understand knowledge, attitudes, and experiences across different key populations. We will not ask you to provide us with any information that could directly identify you, such as name(s), or full date of birth and data will be stored on password-protected computers. However, in exceptional circumstances, individual responses in combination with other available information could lead to identifying you. Protection of your personal information is very important to us, and we will make every effort to safeguard it and reduce the risk that you are identified.

It is possible that some questions may be triggering to some people. Risks to participants will be minimized by providing a note before these questions appear. You have the right to skip any questions you are not comfortable answering.

What is the Authority to Collect the Information?
The information you provide to the Public Health Agency of Canada is collected by the Centre for Immunization Surveillance under the authority of section 4 of the Department of Health Act and Section 3 of the Public Health Agency of Canada Act and handled in accordance with the Privacy Act.
Will we use or share your personal information for any other reason?
The survey firm, Advanis, will be responsible for collecting survey data from all participants. Once data collection is complete, Advanis will provide the Public Health Agency of Canada with a dataset that will not include any individual responses to reduce the risk that you could be identified. All the responses received will be grouped for analysis and presented in grouped form. The dataset will also be available to federal and provincial governments, organizations, and researchers across Canada, if requested. Any reports or publications produced based on this research will use grouped data and will not identify you or link you to these survey results.
Your answers will remain anonymous and the information you provide will be administered according to the requirements of the Privacy Act, the Access to Information Act, and any other pertinent legislation. Click to view our privacy policy (http://www.tellcityhall.ca/privacy.html) (opens in a new window).
What are your rights?
You have a right to complain to the Privacy Commissioner of Canada if you feel your personal information has not been handled properly.
If you have any questions or concerns about the survey or the information we are collecting, please e-mail: survey+healthphac@tellcityhall.ca (mailto:survey+healthphac@tellcityhall.ca).
For technical support with the survey, accessibility requirements, or to request to complete the survey over the phone you can e-mail: survey+healthphac@tellcityhall.ca

(mailto:survey+healthphac@tellcityhall.ca).
For more information about mpox vaccination (https://www.canada.ca/en/public-health/services/diseases/mpox.html) (opens in a new window)
This survey is registered with the Canadian Research Insights Council's (CRIC) Research Verification Service. The project verification number is: 20230308-AD299. Click here (opens in a new window) (https://www.canadianresearchinsightscouncil.ca/rvs/home/) to verify the legitimacy of this survey.

- ❍ 1 If you require a screen reader or assistive device to complete this survey, check this box to access a compatible version
- ❍ 2 Start Survey

Section Survey Content

Introduction

S1

How old are you?

Minimum: 16, Maximum: 120

_____ years

- ❑ -8 I prefer not to answer

T1NotAdult *Show if Not Adult (S1)*

Thank you for your interest, but for this survey you must be 18 years of age or older.

Status Code: 501

Introduction

Show if Did not provide age (S1 = I prefer not to answer)

S1a

For our analysis of the data, we need to know your age category. Can you tell us your age group?

- ❍ 1 Under 18
- ❍ 2 18 to 24
- ❍ 3 25 to 29
- ❍ 4 30 to 34
- ❍ 5 35 to 44
- ❍ 6 45 to 54

❍ 7 55 to 64
❍ 8 65 or older
❑ -8 I prefer not to answer

T1Under18 *Show if Under18 Age Category OR Refused (S1a = 1,I prefer not to answer)*
Thank you for your interest, but for this survey you must be 18 years of age or older.

Status Code: 501

Introduction

S2
What is your gender?

(Show if Web) Gender refers to your current gender which may be different from sex assigned at birth and may be different from what is indicated on legal documents.

❍ 1 Woman (cis-gender female; my sex assigned at birth is the same as my current gender)
❍ 2 Man (cis-gender male; my sex assigned at birth is the same as my current gender)
❍ 3 Non-binary
❍ 4 Transgender woman
❍ 5 Transgender man
❍ 6 Two-spirit/bi-spirit
❍ 7 Another gender (please specify) _____
❑ -8 I prefer not to answer

Section Introduction

General Perceived Physical Health

B1
In the following questions, we are interested in your general health status.
In general, how would you describe your **physical health**?

❍ 1 Excellent
❍ 2 Very good
❍ 3 Good
❍ 4 Fair
❍ 5 Poor
❑ -8 I prefer not to answer
❑ -9 I don't know

B2

In general, how would you describe your **mental health**?

- ❍ 1 Excellent
- ❍ 2 Very good
- ❍ 3 Good
- ❍ 4 Fair
- ❍ 5 Poor
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Mpox Knowledge

B3int

For the following questions, we would like to ask you about your knowledge and experiences regarding an emerging public health topic in Canada.

Mpox (formerly referred to as “monkeypox”), is a disease caused by a virus that can make people sick with a fever, headache, muscle aches, swollen lymph nodes, exhaustion and a rash or blisters on the body that typically lasts 2 to 4 weeks.

Mpox is spread from person-to-person, including during intimate contact and sex.

B3

Before today, how much have you seen, read or heard about mpox?

- ❍ 1 A lot
- ❍ 2 Some
- ❍ 3 A little
- ❍ 4 None
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Section Mpox Infection

Mpox Knowledge *Show if Aware of mpox (B3 = 1,2,3)*

B4

Have you ever had **mpox**?

- ❍ 1 Yes
- ❍ 2 Unsure, I had symptoms but did not consult a health care provider
- ❍ 3 No
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

B4a *Show if Diagnosed mpox (B4 = 1)*

Did your healthcare provider diagnose you with a lab test?

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C12a

How concerned are you about getting mpox?

- ❍ 1 Not at all concerned
- ❍ 2 A little concerned
- ❍ 3 Moderately concerned
- ❍ 4 Very concerned
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Health threats

C13

On a scale from 1 = low threat to 10 = high threat, how would you rate the **current** health threat of the following viruses in Canada?

1. COVID-19 (SARS CoV-2) *
2. Mpox * *(Show if Aware of mpox (B3 = 1,2,3))*
3. Seasonal influenza (Flu) *
4. HIV *

*Levels marked with * are randomized*

- ❍ 1 1-low
- ❍ 2 2
- ❍ 3 3
- ❍ 4 4
- ❍ 5 5
- ❍ 6 6
- ❍ 7 7
- ❍ 8 8
- ❍ 9 9
- ❍ 10 10-high
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Sexual Identity

S3

What is your sexual orientation?

- ❍ 1 Gay
- ❍ 2 Lesbian
- ❍ 3 Bisexual
- ❍ 4 Asexual
- ❍ 5 Heterosexual ("straight")
- ❍ 6 Pansexual
- ❍ 7 Other (please specify): _____
- ❑ -8 I prefer not to answer

S4a *Show if Heterosexual (S3 = 5)*

Have you ever had a sexual experience with a person of the same sex?

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not to answer

S4b *Show if Not Hetersexual OR Same sex experience ((S3 = 1,2,3,4,6,7,I prefer not to answer) OR (S4a = 1))*

For the following question, please select the most accurate response option.
In the past 12 months, my sexual partner(s) was / have been:

- ❍ 1 exclusively men

❍ 2 exclusively women
❍ 3 both men and women
❍ 4 other (please specify): _____
❍ 5 none
❑ -8 I prefer not to answer

Section Immunization Coverage

Show if Target Respondents Broader (NOT ((S2 = 2) AND (S3 = 5) AND (S4a = 0)) AND NOT ((S2 = 1) AND (S3 = 5) AND (S4a = 0)))

Mpox Immunization

C2

Have you ever received a smallpox vaccine?

(Show if Web) Mpox (monkeypox) is in the same family of viruses as smallpox. The smallpox vaccine provides protection against mpox. The smallpox vaccine was only offered to Canadians until 1971. Canadians born in 1972 or later have not been routinely immunized against smallpox. Some countries routinely immunized against smallpox after 1971.

❍ 1 Yes
❍ 0 No
❑ -8 I prefer not to answer
❑ -9 I don't know

C1 *Show if Aware of mpox (B3 = 1,2,3)*

Are you aware that a vaccine against mpox is currently available in Canada?

❍ 1 Yes
❍ 0 No
❑ -8 I prefer not to answer
❑ -9 I don't know

Mpox Immunization *Show if Aware mpox vaccine (C1 = 1)*

C3

Have you received a vaccine for mpox **since June 2022**?

(Show if Web) Imvamune® is the approved vaccine for mpox in Canada. On June 10, 2022, the National Advisory Committee on Immunization (NACI) provided recommendation for the use of Imvamune® against mpox in

Canada.

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C3a *Show if Received mpox vaccine (C3 = 1)*

How many doses of the mpox vaccine did you receive?

- ❍ 1 1 dose
- ❍ 2 2 doses
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Section Immunization Coverage continued

Show if Target Respondents Narrower (NOT ((S2 = 2) AND (S3 = 5) AND (S4a = 0)) AND NOT ((S2 = 1) AND (S3 = 5) AND (S4a = 0)) AND NOT ((S3 = 5) AND (S4a = I prefer not to answer) AND (C3 = 0, I prefer not to answer,I don't know,Not Answered)))

Obstacles to Getting Vaccinated

C5a *Show if Received mpox vaccine (C3 = 1)*

What obstacles, if any, have made it more difficult to get vaccinated against mpox?

(Show if Web) Please select all that apply.

- ❑ 12 I have not encountered any obstacles *(Exclusive)*
- ❑ 1 Not knowing where I could go to get vaccinated *
- ❑ 2 Eligibility for mpox vaccine was unclear to me *
- ❑ 3 Difficulty in getting an appointment/ long wait times *
- ❑ 4 Hard to get vaccination at my own doctor *
- ❑ 5 Vaccination sites weren't open at convenient times *
- ❑ 6 The vaccine was unavailable in my area when I wanted/needed it *
- ❑ 7 I could not travel to a vaccine site *
- ❑ 8 I would be worried about others finding out I got vaccinated *
- ❑ 9 I could not/cannot afford it *
- ❑ 10 Language barriers (e.g., information not in my preferred language) *
- ❑ 11 Other (please specify): _____
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

*Levels marked with * are randomized*

C5b *Show if Not received mpox vaccine (C3 = 0)*

What obstacles, if any, have prevented you from getting vaccinated against mpox?

(Show if Web) Please select all that apply.

- ❑ 12 I have not encountered any obstacles *(Exclusive)*
- ❑ 1 I did not know where to get vaccinated *
- ❑ 2 Eligibility for mpox vaccine was unclear to me *
- ❑ 3 Difficulty in getting an appointment/ long wait times *
- ❑ 4 Hard to get vaccination at my own doctor *
- ❑ 5 Vaccination sites weren't open at convenient times *
- ❑ 6 Vaccines weren't currently available in my area *
- ❑ 7 I could not travel to a vaccine site *
- ❑ 8 I would be worried about others finding out I got vaccinated *
- ❑ 9 I didn't think I could afford it *
- ❑ 10 Language barriers (e.g., information not in my preferred language) *
- ❑ 11 Other (please specify): _____
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

*Levels marked with * are randomized*

C6 *Show if Received OR Not received mpox vaccine (C3 = 0,1)*

Are you or have you been hesitant to get vaccinated against **mpox**?

(Show if Web) Vaccine hesitancy refers to a delay in acceptance or refusal of vaccines despite availability.

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C7 *Show if Hesitant mpox vaccine (C6 = 1)*

For what reason(s) have you hesitated or refused to get vaccinated against mpox?

(Show if Web) Select all that apply

- ❑ 1 I did not receive the mpox vaccine because it was not recommended by my health care provider *
- ❑ 2 I do not believe the vaccine against mpox is safe *
- ❑ 3 I do not believe that the vaccine against mpox is effective *
- ❑ 4 I don't trust vaccination in general *

- ❑ 5 I don't see the need for it because the health risks of mpox are low *
- ❑ 6 I am not eligible for the vaccine *
- ❑ 7 I don't think I'm at risk of mpox *
- ❑ 8 I had a bad experience or reaction to previous vaccination *
- ❑ 9 Philosophical, religious, or spiritual reasons *
- ❑ 10 Experienced discrimination within the public health care system *
- ❑ 11 I am worried about others finding out I got vaccinated for mpox *
- ❑ 12 I have had too many vaccines recently and do not want to get vaccinated *
- ❑ 13 Other (please specify): _____
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

*Levels marked with * are randomized*

C9 *Show if Not Received OR DontKnow OR PreferNotToAnswer (C3 = 0, I prefer not to answer,I don't know,Not Answered)*

What influence, if any, has the roll-out of the mpox vaccines in **June 2022** had on your likelihood of getting vaccinated against mpox?

- ❍ 1 I am **more likely** to get vaccinated against mpox
- ❍ 2 I am **less likely** to get vaccinated against mpox
- ❍ 3 There has been **no change** in my likelihood of getting vaccinated against mpox
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Intention to Vaccinate

C10a *Show if Not aware mpox OR Not aware mpox vaccine ((B3 = 4,I prefer not to answer ,I don't know) OR (C1 = 0,I prefer not to answer ,I don't know))*

On June 10, 2022, the National Advisory Committee on Immunization (NACI) provided recommendation for the use of Imvamune® against mpox in Canada. The vaccine requires two doses, given 28 days apart, for full protection.

Knowing that there is a vaccine available, how likely would you be to receive a vaccine for mpox **in the future**?

- ❍ 1 Very likely
- ❍ 2 Somewhat likely
- ❍ 3 Somewhat unlikely
- ❍ 4 Very unlikely
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C10b *Show if Not received mpox OR dontKnow OR PreferNotToAnswer (C3 = 0, I prefer not to answer,I don't know)*

How likely are you to get vaccinated against mpox **in the future**?

- ❍ 1 Very likely
- ❍ 2 Somewhat likely
- ❍ 3 Somewhat unlikely
- ❍ 4 Very unlikely
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C11 *Show if Received one dose mpox vaccine (C3a = 1)*

How likely are you to get a second dose of the mpox vaccine **in the future**?

- ❍ 1 Very likely
- ❍ 2 Somewhat likely
- ❍ 3 Somewhat unlikely
- ❍ 4 Very unlikely
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Knowledge, Attitudes and Beliefs

C12b *Show if Received mpox vaccine (C3 = 1)*

Prior to receiving the mpox vaccine, how concerned were you about getting mpox?

- ❍ 1 Not at all concerned
- ❍ 2 A little concerned
- ❍ 3 Moderately concerned
- ❍ 4 Very concerned
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C4

We now have a couple questions about COVID-19 vaccines.

How many doses of the Health Canada approved **COVID-19 vaccines** have you received?

(Show if Web) AstraZeneca Vaxzevria; Moderna Spikevax; Pfizer-BioNTech Comirnaty; Johnson & Johnson Janssen; Novavax Nuvaxovid; and Medicago Covifenz

- ❍ 1 1 dose
- ❍ 2 2 doses
- ❍ 3 3 doses
- ❍ 4 4 or more doses
- ❍ 5 None
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C8

Are you or have you been hesitant to get vaccinated against **COVID-19**?

(Show if Web) Vaccine hesitancy refers to a delay in acceptance or refusal of vaccines despite availability.

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not answer
- ❑ -9 I don't know

C14 *Show if Aware of mpox (B3 = 1,2,3)*

People may have changed some of their practices in response to the mpox outbreak which began in Canada in May 2022.
Since you learned of the mpox outbreak, how have the following things changed for you, if at all?

1. Number of sex partners *
2. Having group sex *
3. Use of condoms *
4. One-time sexual encounters *
5. Visiting sex venues or events (e.g., sex parties, bath houses) *
6. Sex with partners met through dating apps or at sex venues *

*Levels marked with * are randomized*

- ❍ 1 Increased
- ❍ 2 Decreased
- ❍ 3 No change
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C16

Which of the following sources of information would you be most likely to consult in order to find information on the **mpox vaccine (Imvamune®)**?

(Show if Web) Please select all that apply.

- ❑ 1 Health care providers *
- ❑ 2 Family/friends *
- ❑ 3 My local public health unit/clinic *
- ❑ 4 Ministry of Health within my province or territory *
- ❑ 5 Public Health Agency of Canada or Health Canada *
- ❑ 6 News/media/social media *
- ❑ 7 2SLGBTQI+ organizations *
- ❑ 8 Scientific publications, journals *
- ❑ 9 National Advisory Committee on Immunization (NACI) *
- ❑ 10 International organizations (e.g., World Health Organization (WHO)) *
- ❑ 11 Other (please specify) _____
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

*Levels marked with * are randomized*

C17

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements:

1. Vaccines are an effective way to reduce the risk of contracting mpox. *
2. The mpox vaccine is effective in providing protection against mpox when given **before exposure** to the virus. *
3. The mpox vaccine is effective in providing protection against mpox when given **after exposure** to the virus (before any signs/symptoms). *
4. I feel confident that I can protect myself from getting mpox by getting a vaccine. *

*Levels marked with * are randomized*

- ❍ 1 Strongly agree
- ❍ 2 Somewhat agree
- ❍ 3 Somewhat disagree
- ❍ 4 Strongly disagree
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

C18

To the best of your knowledge, please indicate whether the following statements are true or false:

1. In general, vaccines are safe. *
2. In general, vaccines are effective *
3. Gay and bisexual men are more likely to get mpox. *

*Levels marked with * are randomized*

- ❍ 1 True
- ❍ 2 False
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

Section Sociodemographic

Demographics

A1

In order to better understand the diversity of the Canadian population, as well as to help achieve greater equity and diversity in public health, we would like to ask you a few questions about your general background. We acknowledge that some of these questions may result in uncomfortable feelings.

What was your sex at birth?

- ❍ 1 Male
- ❍ 2 Female
- ❍ 3 Other
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

A2

What is the highest level of formal education you have completed?

- ❍ 1 Less than a high school diploma or equivalent
- ❍ 2 High school diploma or equivalent
- ❍ 3 Registered apprenticeship or other trade certificate or diploma
- ❍ 4 College/CEGEP or other non-university certificate or diploma
- ❍ 5 University certificate or diploma below bachelor's level
- ❍ 6 University – bachelor's degree or equivalent
- ❍ 7 University – post-graduate degree above bachelor's level or equivalent
- ❍ 8 Other (please specify): _____
- ❑ -8 I prefer not to answer

❑ -9 I don't know

A3

Please indicate your total household income, before taxes and deductions, for the year ending December 31, 2022. Your total household income consists of the total amount of money earned by all household members.

❍ 1 Under $20,000
❍ 2 $20,000 to just under $40,000
❍ 3 $40,000 to just under $60,000
❍ 4 $60,000 to just under $80,000
❍ 5 $80,000 to just under $100,000
❍ 6 $100,000 to just under $150,000
❍ 7 $150,000 and above
❑ -8 I prefer not to answer
❑ -9 I don't know

A4

Our racial and ethnic identities may shape how we are treated by different individuals and institutions.
Which of the following best describes the racial or ethnic community that you belong to? We recognize this list of racial or ethnic identifiers may not exactly match how you would describe yourself.

(Show if CATI) Select all that apply

(Show if Web) Please select all that apply to you.

❑ 1 Black (African, Afro-Caribbean, African descent)
❑ 2 East/Southeast Asian (e.g. Chinese, Korean, Japanese, Taiwanese, Filipino, Vietnamese, Cambodian, Thai, Indonesian, other East/Southeast Asian descent)
❑ 3 Indigenous
(First Nations, Métis and/or Inuit)
❑ 4 Latino/Latina (e.g. Latin American, Hispanic descent)
❑ 5 Middle Eastern and North African (e.g. Arab, Algerian, Egyptian, West Asian descent (e.g. Iranian, Israeli, Lebanese, Turkish, Kurdish, etc.)
❑ 6 South Asian (e.g., Afghan, Indian, Pakistani, Bangladeshi, Sri Lankan, etc.)
❑ 7 White (e.g. European, Caucasian, etc.)
❑ 8 Other (please specify): _____
❑ -8 I prefer not to answer

A5

Do you have any children aged 17 and under living in your household?

- ❍ 1 Yes
- ❍ 0 No
- ❑ -8 I prefer not to answer

A6

Do you live in an urban or rural area?

(Show if Web) An urban area is a city, town or village with a population of 1,000 people or more, while a rural area is any other area of lower population.

- ❍ 1 Urban
- ❍ 2 Rural
- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

A7

So we can classify responses based on where people live, please enter the first three digits of your postal code.

(Show if CATI) Please do not enter personally identifying information (e.g., name, email address, phone number, mailing address).

(Show if Web) Please do not enter personally identifying information (e.g., name, email address, phone number, mailing address).

_____
_____
_____
_____
_____

- ❑ -8 I prefer not to answer
- ❑ -9 I don't know

A8 *Show if Did not provide FSA (A7 = I prefer not to answer,I don't know)*

In which province or territory do you reside?

- ❍ 1 Alberta
- ❍ 2 British Columbia

- ❍ 3 Newfoundland and Labrador
- ❍ 4 Manitoba
- ❍ 5 New Brunswick
- ❍ 6 Northwest Territories
- ❍ 7 Nova Scotia
- ❍ 8 Nunavut
- ❍ 9 Ontario
- ❍ 10 Prince Edward Island
- ❍ 11 Quebec
- ❍ 12 Saskatchewan
- ❍ 13 Yukon
- ❍ 14 I live outside of Canada

THeterPNTA *Show if Heterosexual AND Same Sex Not Answered AND No Vaccine ((S3 = 5) AND (S4a = I prefer not to answer) AND (C3 = 0, I prefer not to answer,I don't know,Not Answered))*

This is the end of the survey. On behalf of the Public Health Agency of Canada, we would like to thank you for participating in this survey. Your responses will provide invaluable and insightful information about public health and sexual health topics in Canada.

Wellness Together Canada offers free live counselling through Homewood Health, 24 hours a day. To speak to someone, call 1-866-585-0445.

Status Code: -1

Section Survey End

Complete

WebEndTCH *Show if NonIndigenous NOT (A4_3 = 1)*

This is the end of the survey. On behalf of the Public Health Agency of Canada, we would like to thank you for participating in this survey. Your responses will provide invaluable and insightful information about public health and sexual health topics in Canada.

Wellness Together Canada offers free live counselling through Homewood Health, 24 hours a day. To speak to someone, call 1-866-585-0445.

Status Code: -1

WebEndIndigenous *Show if Indigenous (A4_3 = 1)*

This is the end of the survey. On behalf of the Public Health Agency of Canada, we would like to thank you for your participation. Your responses will provide valuable and insightful information

about immunization in Indigenous communities across Canada.
The First Peoples Wellness Circle (FPWC) is a national not-for-profit corporation governed and managed by Indigenous Leaders and exists to improve the lives of Canada's First Peoples by addressing healing, wellness and other mental health challenges. Call 1-833-311-FPWC (3792)
Hope for Wellness Helpline (https://www.hopeforwellness.ca/) is available 24/7 to all Indigenous people across Canada. Telephone and online counselling are available in English and French. Additional languages can be requested.
Call the toll-free Help Line: 1-855-242-3310 or connect to the online chat at hopeforwellness.ca

Status Code: -1

Help Page

CRIC: Advanis is a registered member of the Canadian Research Insights Council. Advanis upholds their pledge. This can be accessed at: https://www.canadianresearchinsightscouncil.ca/wp-content/uploads/2020/09/CRIC-Pledge-to-Canadians.pdf. This survey is registered with the Canadian Research Insights Council's (CRIC) Research Verification Service. The project verification number is: 20230308-AD299 and can be verified at:
https://www.canadianresearchinsightscouncil.ca/rvs/home/
Contact info: Sue Day at 1-888-883-7094
If you are having some stress/emotional difficulties at this time, it might help to talk to someone.I have a toll free number I could give you if you were interested in talking to someone.
Canada: 1-800-784-2433 or 1-800-273-TALK (1-800-273-8255)
US: 1-800-273-8255