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CHILDHOOD IMMUNIZATION COVERAGE SURVEY AMONG KEY POPULATIONS (KPCICS): HEALTH CARE WORKER PARENTS – 2024

REPORT

Prepared for the Public Health Agency of Canada

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This report presents the methodology of an online survey conducted by Leger on behalf of the Public Health Agency of Canada (PHAC). The objective of the survey was to collect information on routine childhood immunization including flu, COVID-19 immunization, intention to get vaccinated and reasons not to, and attitudes and beliefs towards immunization. Data collection was conducted between March 28 and April 25, 2024.

Cette publication est aussi disponible en français sous le titre : Enquête sur la couverture vaccinale des enfants dans les populations clés (ECVEPC) : Parents travailleurs de la santé - 2024.

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1. Executive Summary

Leger is pleased to submit this report to the Public Health Agency of Canada (PHAC) detailing the methodology of an online survey assessing immunization coverage and attitudes and beliefs of healthcare worker parents towards child vaccination.

1.1 Background

Surveillance data suggests that vaccine coverage is uneven across Canada. Furthermore, results from existing surveillance tools suggest that certain key at-risk populations are under-surveyed. The childhood National Immunization Coverage survey (cNICS) is a general population survey that measures routine childhood immunization coverage among children aged 2, 7, 14 and 17 years and COVID-19 vaccine uptake in children ages 14 and 17 years, as well as parental knowledge, attitudes and beliefs about vaccination. This surveillance tool provides critical information about childhood immunization in Canada, though is limited in that it was not designed to sample from all child age ranges or from key at-risk populations.

Consequently, this results in insufficient data regarding routine childhood immunization status and COVID-19 vaccine coverage, and knowledge, attitudes and behaviors towards vaccination within these specific groups. In turn, this hinders core immunization functions including COVID-19 vaccine and routine childhood immunization surveillance, vaccine confidence, available data, policy, public health guidance, and knowledge mobilization activities.

In addition, the COVID-19 pandemic yielded a large shift in Canadians' knowledge, attitudes, and beliefs towards vaccinations. For certain populations, such as healthcare workers, recent evidence points that there has been a high prevalence of vaccine hesitancy and refusal for COVID-19 vaccines. Monitoring of parental attitudes is essential to predict expected vaccine uptake and to guide education and awareness efforts to promote vaccination among children issued from these specific populations.

Surveillance tools are needed to address data coverage gaps identified for these sub-populations and to inform public health vaccination programs and initiatives. In the effort of addressing vaccine coverage data gaps relating to at-risk populations, the Public Health Agency of Canada (PHAC) sought third party support to implement the cycle 2 of the surveillance initiative, the Childhood Immunization Coverage Survey in Key Populations (KPCICS) in Canada.

Rationale and Intended Use of Research

Results will be used by PHAC to provide timely, trusted, and evidence-based information for Canadians to take action on their children and collective health and safety regarding COVID-19 risk and other vaccine-preventable diseases. The surveillance project findings will also support equity in vaccine coverage by identifying determinants associated with low vaccine uptake or

vaccine hesitancy in identified at-risk populations, including health care workers. Additional information collected from this population regarding their knowledge, attitudes, and beliefs, experiences, and barriers to vaccination will inform policy development and guide public education and awareness efforts.

1.2 Research Objectives

The core objective of this survey is to maintain a surveillance tool that provides up-to-date vaccine coverage data (e.g., on measles, diphtheria, tetanus, pertussis, polio, COVID-19) specific to the children of health care workers. The survey will assess parent/guardian/other Person most knowledgeable (PMK)'s (e.g., child's step-parent, adoptive parent, foster parent, sister or brother, grandparent or relative caring for and responsible for health decisions for the child) opinions and views on their child's immunization uptake, as well as vaccine hesitancy and vaccine refusal. This survey will also investigate the reasons for vaccine hesitancy among these populations and the impact this has on childhood immunization.

The second objective is to continue to monitor the effects of the COVID-19 pandemic (and any new possible waves of COVID-19) on concurrent childhood immunizations to determine priorities for vaccine-preventable diseases, with the aim of identifying whether catch-up routine immunization campaigns are required.

The surveillance project aims to collect information on:

- Routine childhood and COVID-19 immunizations status
- Intent to get vaccinated for those not yet vaccinated
- Reasons for non-vaccination (including barriers)
- Parent/ guardian/ other PMK's knowledge, attitudes and beliefs (KAB) toward immunization
- Sources of information on immunization, including routine childhood vaccines and COVID-19 vaccines
- Socio-demographic characteristics potentially linked to inequalities in vaccination uptake

1.3 Methodology—Quantitative research

Quantitative research was conducted through online surveys using Computer Aided Web Interviewing (CAWI) technology between March 28 and April 25, 2024, with a total sample of 405 healthcare workers who are parents of children aged 17 and under.

While the LEO panel is meant to be representative of the Canadian population, it is not probabilistic; the results cannot be inferred to the healthcare worker parents population of Canada nor their children, as respondents are selected among those who have volunteered to participate/registered to participate in online surveys The sampling method used does not ensure that the sample represents the target population with a known margin of sampling error.

1.4 Contract value

The total contract value for the project was \$38,489.10 including applicable taxes.

1.5 Declaration of political neutrality and contact information

I hereby certify, as Executive VP of Leger, that the deliverables are in full compliance with the neutrality requirements of the [Policy on Communications and Federal Identity](#) and the [Directive on the Management of Communications—Appendix C](#) (Appendix C: Mandatory Procedures for Public Opinion Research).

Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, party positions, or the assessment of the performance of a political party or its leaders.

Signed by:



Christian Bourque
Executive Vice President and Associate
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2. Methodology

2.1. The sample source: LEO panel

Leger owns and operates an Internet panel of more than 400,000 Canadians from coast to coast. An Internet panel is made up of Web users profiled on different sociodemographic variables. The majority of Leger's panel members (61%) have been recruited randomly over the phone over the past decade through random digit dialing (RDD) methods, making it highly similar to the actual Canadian population on many demographic characteristics.

While the LEO panel is meant to be reflective of the Canadian population, it is not probabilistic; the results cannot be inferred to the general population of Canada as respondents are selected among those who have volunteered to participate/registered to participate in online surveys.

2.2 Survey design

The questions for this survey were designed by the Public Health Agency of Canada and supplied to Leger in both English and French. Leger reviewed the French survey translations. The questionnaire contained core questions about routine childhood and COVID-19 immunizations, including vaccination status, barriers to vaccination, knowledge attitudes and beliefs related to vaccination, demographics, and questions about general health. In this iteration of the KPCICS, flu questions were separated out from routine Childhood vaccines.

The Government of Canada's standards for pre-testing were adhered to. The pretest was conducted in both English and French. The pretest was conducted between March 25 and 28, 2024. This led to 29 completed online surveys (13 French, and 16 English). After the pretest, minor wording changes were made to the questions, and minor corrections were made to the programming. For instance, the back button on the survey, which enables respondents to go back and change their answers, was removed as it created glitches in the questionnaire flow. Furthermore, some changes to skip logics were put in place to improve the survey flow (e.g., respondents who answered "I prefer not to answer" at C3c were excluded from answering C8). Responses that were not affected were included in the final results. A total sample of 405 healthcare workers who are parents of children aged 17 and under were surveyed. The questionnaire is presented in Appendix B.

Among those completing the survey online, the median survey length was 10 minutes while the average survey length was 12 minutes.

2.3 Sampling and administration

The target audience for the survey was health care workers in Canada who are parents/guardians/PMK (e.g., child's stepparent, adoptive parent, foster parent, sister or brother, grandparent or relative caring for and responsible for health decisions for the child) for a child(ren) aged 17 years or younger living across the country. The minimum targeted number of completed surveys was 405 Canadian HCW parents. Questions within the survey further filtered out responses from anyone under the age of 18 years (S1) and responses for anyone who is not the parent/legal

guardian of a child(ren) under the age of 18 (S2) and not being HCW (S11a). A total of 405 responses were obtained. The national participation rate for the survey was around 15%. Calculation of the Web survey’s participation rate is presented in Appendix A.

A portion of the sample (371 respondents out of 405) comes from the portion of the LEO panel that was recruited using random digit dialing (RDD) methods. Although the sample containing 34 respondents was recruited using non-probabilistic methods, only the RDD-recruited panel sample has been considered in the analyses to enhance data validity and facilitate data interpretation.

A total sample of 405 healthcare workers who are parents of children aged 17 and under were surveyed. The following table shows the effective samples collected:

Table 1. Distribution of participants by region

Regions	Total sample n	Probability sample n	Non-probability sample n
Atlantic (New Brunswick + Nova Scotia + Newfoundland and Labrador + Prince Edward Island)	38	35	3
Quebec	91	85	6
Ontario	120	109	11
Saskatchewan + Manitoba	30	27	3
Alberta	48	42	6
British Columbia + Territories	78	73	5
TOTAL	405	371	34

The margins of sampling error cannot be calculated for surveys using non-probabilistic sampling.

2.4 Weighting and data cleaning

Based on data from Statistics Canada’s 2021 national census, Leger weighted the results of this survey by age and sex at birth of selected child, and HCW parent’s education level, gender, age and region.

The demographic profile derived from Statistics Canada is applied to the entire administrative database via a statistical method for weighting. The administrative database includes all participants who attempted to complete the study, including those who are not eligible, as well as incomplete records. This process helps adjust all data in the administrative database to mirror the demographic structure of the general population.

Once the weights are applied to the administrative database, the demographic profile of eligible individuals (HCW parents) is extracted. This profile is considered reflective of the target population and is then applied to the eligible and completed subset of the sample (i.e., the total

of 405 healthcare workers who are parents of children aged 17 and under). This step ensures that the final analysis is more reflective of the target population.

Other data cleaning and data processing methods were used, including:

- Derived variables were created to enhance the analytical value of the raw data. These derived variables allowed for more nuanced analysis and interpretation of the survey results. For instance, a derived variable was created from the questions C9a, C9b and C9c and is included in the banner tables as a banner break to simplify analysis.
- New variables were also created to indicate specific characteristics of each observation. The variable “PROBABILITY” indicated whether the respondent comes from the RDD-recruited panel sample or not, and the WT_PROB indicated the weights applied when analyzing the RDD- recruited panel sample (of 371 health care workers in Canada who are parents/guardians/ PMK for a child(ren) aged 17 years or younger).
- Where applicable, open-ended answers were coded and grouped into existing category levels.

Further details regarding the weighting procedures can be found in Appendix A.

2.5 Quality control

Leger meets the strictest quantitative research guidelines. The questionnaire was prepared in accordance with the Standards for the Conduct of Government of Canada Public Opinion Research— Online Surveys.

The details of Leger’s quality control mechanisms are presented in Appendix A.

3. Non-response Bias

A basic comparison of the unweighted and weighted sample sizes was conducted to identify any potential non-response bias that could be introduced by lower response rates among specific demographic subgroups (see A.5 Unweighted and weighted samples for further details). The small differences observed have not introduced a non-response bias for any of the subgroups. Further details regarding quality control and strategies undertaken to increase response rates and curtail the effect of non-response bias are included in Appendix A.

4. Notes on the interpretation of the findings

The respondents were randomly selected from members of our panel (LEO), part of which were recruited using random digit dialing (RDD) methods, ensuring that the sample closely resembles

the actual population of Canada. While the LEO panel is meant to reflect the Canadian population, it is not probabilistic; the results cannot be inferred to HCW parents population in Canada as respondents are selected among those who have volunteered to participate/registered to participate in online surveys. The sampling method used does not ensure that the sample represents the target population with a known margin of sampling error.

A portion of the sample (371 respondents out of 405) comes from the portion of the LEO panel that was recruited using random digit dialing (RDD) methods. The remainder of the sample (34 respondents out of 405) was based on non-probabilistic recruitment methods. Even though Random Digit Dialing (RDD) is a probabilistic sampling method, the RDD sample is considered non-probabilistic as it is internet panel based.

5. Guidelines for Analysis and Release

Any results with an unweighted base size (denominator) of less than 30 should be interpreted with caution.¹⁻² Furthermore, for confidentiality purposes, any results with a base of less than 10 should be suppressed.

5.1. Rounding Guidelines

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

- Estimates in the main body of a statistical table were 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 were derived from their corresponding un-rounded components and then were rounded themselves to the nearest 100 units using normal rounding.
- Averages, rates and percentages were computed from un-rounded components (i.e. numerators and/or denominators) and then were rounded themselves to one decimal using normal rounding. In normal rounding to a single digit, if the final or 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.

¹ 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

² Statistics Canada. Canadian Community Health Survey User Guide. 2021.

- No un-rounded estimates have been published or otherwise released with this report. Un-rounded estimates imply greater precision than actually exists.

Appendix A—Detailed research methodology

A.1 Methods

Research was conducted through online surveys using Computer Aided Web Interviewing (CAWI) technology between March 28 and April 25, 2024. A total sample of 405 health care workers who are parents of children aged 17 and under were surveyed. Of these, 371 were randomly selected from the portion of the LEO panel that was recruited using probabilistic methods.

Leger adheres to the most stringent guidelines for quantitative research. The survey was in accordance with Government of Canada requirements for quantitative research, including the Standards of the Conduct of Government of Canada Public Opinion Research – Series A—fieldwork and data tabulation for online surveys.

Respondents were assured of the voluntary, confidential and anonymous nature of this research. As with all research conducted by Leger, all information that could allow for the identification of participants was removed from the data, in accordance with the Privacy Act.

A.2 Sampling Procedures

Computer Aided Web Interviewing (CAWI)

Participant selection was done randomly from Leger’s online panel (LEO), part of which were recruited using random digit dialing (RDD) methods. Leger owns and operates an Internet panel of more than 400,000 Canadians from coast to coast. An Internet panel is made up of Web users profiled on different sociodemographic variables. The majority of Leger’s panel members (61%) have been recruited randomly over the phone over the past decade, making it highly similar to the actual Canadian population on many demographic characteristics.

As recruitment for the LEO panel is ongoing, each member of the Canadian public with a phone had a chance of being recruited to the Internet panel and thus the survey sample.

While the LEO panel is meant to be reflective of the Canadian population, it is not probabilistic; the results cannot be inferred to the general population of Canada as respondents are selected among those who have volunteered to participate/registered to participate in online surveys.

A.3 Quality control

The research team supervised programming and ensured that each question, response category and skip patterns have been properly entered and this, even after this

information has been verified by two separate programmers and a data analyst, to check for consistency. The Project Authority at Health Canada also tested the programmed survey demo link.

In broad terms, Leger's quality methodological approach for an online survey includes the following steps:

- Highly trained programmers, assisted by experienced data analysts, program each survey in CAWI then perform thorough testing to ensure that no stone is left unturned.
- Review the programmed CAWI questionnaire to ensure it fully matches the paper version agreed to by the client.
- Test the programming to ensure all skip patterns and filters are working properly. This testing phase includes thorough review by the research team on multiple browsers, as well as the running of multiple automated simulations to check the consistency of frequencies obtained.
- Complete a pre-test of the research instrument with the target population in both English and French (at least 10 completed questionnaires in each language) and make sure that some respondents from all subgroups targeted in the project are part of the pre-test. (Unless there are major changes in the questionnaire after the pretest, the pretest sample will be part of the final sample, otherwise they will be removed from it.)
- Debrief with the project authority about the pre-test results and make recommendations to adjust the questionnaire if needed.
- Proceed with a full-field launch.
- The finalized code book of open-ended responses is approved by the research manager. Original verbatim information is not erased and replaced by codes. This gives the research manager the opportunity to go back to the original data if necessary.

Upon completion of data collection for online surveys, Leger's data analysts and data processing department will clean the data thoroughly, ensuring that:

- all skip patterns have been followed correctly;
- data is complete (except where it is intentional and within client expectations);
- information is consistent and logical across questions, with no contradictions in the data.

The data is checked and cleaned after the pretest, after the first night of field, and at project completion. During analysis, all numbers are double-checked to ensure the data has been entered accurately in the first place.

Additional Data Quality Checks for Online Completions

To make sure that online respondents answered the survey properly and seriously, Leger proposes two basic methods. The first one is to insert validation questions within the questionnaire, such as: "Please select all the animals from the list below." Respondents

who do not choose the animals in the list would then be automatically excluded from the survey. Our experience shows that including such questions reduces the likelihood that respondents do not read the questions. The filter questions (FILT) that serve as validation questions vary from survey to survey so as not become too obvious to all respondents. In addition to this simple filter, Leger also checks its survey completion times so that all questionnaires filled more than twice as fast as the median completion time are checked for internal consistency. If there are any indications that responses are following a “straight-lining” pattern or contain too many residual answers (don’t know or refused), this respondent would be removed from the study.

Finally, in order to increase response rates and curtail the effect of non-response bias, several measures are put in place, including:

- Offering an incentive in the form of points to the panelists who complete the survey.
- Sending invitations and reminders to participate in the survey.
- Offering the ability to complete the survey at any moment.
- Assuring respondents of the confidentiality of their answers.

A.4 Participation Rate for the Web Survey

The national participation rate for the survey was around 15%. Below is the calculation of the participation rate to the web survey. The participation rate is calculated using the following formula: Participation rate / response rate = $R \div (U + IS + R)$. The table below provides details of the calculation.

Table 2. Participation rate

	Target audience
Invalid cases	
Invitations mistakenly sent to people who did not qualify for the study	-
Incomplete or missing email addresses	-
Unresolved (U)	46,329
Email invitations bounce back	42
Email invitations unanswered	46,287
In-scope non-responding units (IS)	656
Non-response from eligible respondents	-
Respondent refusals	277
Language problem	-
Selected respondent not available (illness; leave of absence; vacation; other)	-
Early breakoffs	379

Responding units (R)	8,306
Completed surveys disqualified – quota filled	1
Completed surveys disqualified for other reasons – ineligible respondents	7,900
Completed interviews	405
POTENTIAL SAMPLE (U+IS+R)	55,291
Participation rate = $R \div (U + IS + R)$	15.02%

The participation rate for the survey was around 15%. A 15% participation rate among the target audience is consistent with similar surveys. On the other hand, because of the particularity of the target audience of healthcare workers who are parents of children aged 17 and under, Leger had to invite a large number of parents to participate; 55,000 invitations were sent. Each potential respondent received 1 reminder to complete the survey. Since the age of children is only identified by age brackets in the profile of the panelists, the question was asked to a large number of parents in order to identify those who qualify for the survey and reach the minimum target survey quota.

A.5 Unweighted and Weighted Samples

The results of this survey were weighted by region, child’s age and sex at birth, and HCW’s parent’s education level, gender, and age, based on data from Statistics Canada’s 2021 national census. Because the survey was designed to gather information on both children’s vaccination status and parents’ attitudes towards vaccines, both parents’ and children’s demographic profiles were used for weighting.

The demographic profile derived from Statistics Canada is applied to the entire administrative database via statistical method for weighting. The administrative database includes all participants who attempted to complete the study, including those who are not eligible, as well as incomplete records. This process helps adjust all data in the administrative database to mirror the demographic structure of the general population.

Once the weights are applied to the administrative database, the demographic profile of eligible individuals is extracted. This profile is considered reflective of the target population and is then applied to the eligible and completed subset of the sample (i.e., the total of 405 healthcare workers who are parents of children aged 17 and under). This step ensures that the final analysis is more reflective of the target population.

Other data cleaning and data processing methods were used, including:

- Derived variables were created to enhance the analytical value of the raw data. These derived variables allowed for more nuanced analysis and interpretation of

the survey results. For instance, a derived variable was created from the questions C9a, C9b and C9c and were included in the banner tables to simplify analysis.

- New variables were also created to indicate specific characteristics of each observation. The variable “PROBABILITY” indicated whether the respondent comes from the RDD-recruited panel sample or not, and the WT_PROB indicated the weights applied when analyzing the RDD- recruited panel sample (of 371 health care workers in Canada who are parents/guardians/ PMK for a child(ren) aged 17 years or younger).
- Where applicable, open-ended answers were coded and grouped into existing category levels.

The tables below present the distribution of the target population by region, child’s sex at birth and age, and HCW’s parent’s education level, age and gender before and after weighting.

Some proportions did not align with the actual population. The weighting process adjusted those differences.

Table 3. Unweighted and weighted count distribution by region

Province or territory	Unweighted count	Weighted count
British Columbia + Territories	78	77
Alberta	48	59
Saskatchewan + Manitoba	30	31
Ontario	120	121
Quebec	91	88
Atlantic Canada	38	29
Total	405	405

Table 4. Unweighted and weighted count by child’s sex at birth

Gender	Unweighted count	Weighted count
Male	239	208
Female	165	197
Total	404	405

Table 5. Unweighted and weighted count by child's age

Age	Unweighted count	Weighted count
0-4 years old	123	103
5-11 years old	116	163
12-17 years old	166	140
Total	405	406

Table 6. Unweighted and weighted count by parent's education level

Education	Unweighted count	Weighted count
Less than a Bachelor's degree	192	251
Bachelor's or above	212	154
Total	404	405

Table 7. Unweighted and weighted count by parent's age

Age	Unweighted count	Weighted count
18-34 years old	194	196
35-54 years old	200	199
55 years old and over	11	10
Total	405	405

Table 8. Unweighted and weighted count by parent's gender

Gender	Unweighted count	Weighted count
Man	202	197
Woman	203	208
Total	405	405

A.6 Weighted distribution

Certain subgroups tend to be underrepresented or overrepresented in a sample compared to the target population. The weighting of a sample makes it possible to correct for differences in the representation of the various subgroups of that sample compared to what is usually observed in the overall study population. Weighting factors are therefore the weight given to each respondent that corresponds to a subgroup of the sample.

The weighting applied corrected the original imbalance for data analysis purposes; no further manipulation was required.

The results of this survey were weighted by region, child’s age and sex at birth, and HCW parent’s education level, gender, and age, based on data from Statistics Canada’s 2021 national census³. The data sources used for weighting are presented below the tables.

The following tables illustrate the proportion assigned to each target audience in the **final sample and in the administrative database**. In other words, the table presents the weighted distribution of each profile in the final sample and in the administrative database.

Table 9. Weighted distribution by parent’s gender and age

Profiles: Healthcare Worker Parent’s Gender*Age	Final Sample proportion	Administrative database proportion
Man 18-24	10.80%	5.22%
Man 25-34	18.18%	8.33%
Man 35-44	12.41%	8.11%
Man 45-54	6.16%	7.69%
Man 55-64	1.02%	8.58%
Man 65+	0.00%	10.83%
Woman 18-24	3.05%	4.88%
Woman 25-34	16.41%	8.26%
Woman 35-44	19.44%	8.38%
Woman 45-54	11.20%	8.00%
Woman 55-64	1.34%	8.95%
Woman 65+	0.00%	12.75%
Total	100%	100%

Table 10. Weighted distribution by region

Profiles: Region	Final Sample proportion	Administrative database proportion
British Columbia	18.91%	13.88%

³ Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released November 15, 2023.

Alberta	14.66%	11.10%
Saskatchewan	3.71%	2.92%
Manitoba	4.01%	3.50%
Ontario	29.88%	38.60%
Quebec	21.64%	23.02%
New Brunswick	2.78%	2.15%
Nova Scotia	1.66%	2.70%
Prince Edward Island	0.17%	0.42%
Newfoundland	2.58%	1.43%
Northwest Territories	0.00%	0.10%
Yukon	0.00%	0.11%
Nunavut	0.00%	0.08%
Total	100%	100%

Table 11. Weighted distribution by parent's gender and region

Profiles: Healthcare Worker Parent's Gender*Region	Final Sample proportion	Administrative database proportion
Man British Columbia + Territories	10.80%	5.22%
Man Alberta	18.18%	8.33%
Man Manitoba/Saskatchewan	12.41%	8.11%
Man Ontario	6.16%	7.69%
Man Quebec	1.02%	8.58%
Man Atlantic	0.00%	10.83%
Woman British Columbia + Territories	3.05%	4.88%
Woman Alberta	16.41%	8.26%
Woman Manitoba/Saskatchewan	19.44%	8.38%
Woman Ontario	11.20%	8.00%
Woman Quebec	1.34%	8.95%
Woman Atlantic	0.00%	12.75%
Total	100%	100%

Table 12. Weighted distribution by education level

Profiles: Healthcare Worker Parent's Education level	Final Sample proportion	Administrative database proportion
University – completed Bachelor's degree and above	30.84%	45.82%
Not university – Less than a Bachelor's degree	69.16%	54.18%
Total	100%	100%

Table 13. Weighted distribution by child's gender and age^A

Profiles: Child's Gender*Age	Final Sample proportion
Boy Under 1 year old	2.44%
Boy 1 year old	2.52%
Boy 2 years old	2.59%
Boy 3 years old	2.67%
Boy 4 years old	2.77%
Boy 5 years old	2.85%
Boy 6 years old	2.89%
Boy 7 years old	2.90%
Boy 8 years old	2.97%
Boy 9 years old	2.97%
Boy 10 years old	2.99%
Boy 11 years old	3.05%
Boy 12 years old	3.07%
Boy 13 years old	3.05%
Boy 14 years old	2.97%
Boy 15 years old	2.90%
Boy 16 years old	2.87%
Boy 17 years old	2.88%
Girl Under 1 year old	2.31%
Girl 1 years old	2.40%
Girl 2 years old	2.47%

Girl 3 years old	2.54%
Girl 4 years old	2.63%
Girl 5 years old	2.72%
Girl 6 years old	2.74%
Girl 7 years old	2.77%
Girl 8 years old	2.80%
Girl 9 years old	2.82%
Girl 10 years old	2.83%
Girl 11 years old	2.89%
Girl 12 years old	2.90%
Girl 13 years old	2.89%
Girl 14 years old	2.79%
Girl 15 years old	2.73%
Girl 16 years old	2.70%
Girl 17 years old	2.70%
Total	100%

[^] Note: Regarding children’s age and gender, the general population proportions were applied directly to the sample of HCW parents.

Below are the sources of the general population demographic profiles used for weighting the administrative database and the final sample:

- [Region, parent’s gender and age, child’s gender and age](#)
- Parent’s [education level](#)

A.7 Weighting factors

Presented below are the unweighted and weighted distribution of each profile along with the subsequent weighting factors.

Table 14. Weighting factors by parent’s gender and age profiles

Profiles: Parent’s Gender*Age	Unweighted n	Weighted n	Factor
Man 18-24	30	44	1.4667
Man 25-34	91	74	0.8132
Man 35-44	45	50	1.1111

Man 45-54	31	25	0.8065
Man 55-64	5	4	0.8000
Man 65+	0	0	-
Woman 18-24	11	12	1.0909
Woman 25-34	62	67	1.0806
Woman 35-44	83	79	0.9518
Woman 45-54	41	45	1.0976
Woman 55-64	6	5	0.8333
Woman 65+	0	0	-
Total	405	405	-

Table 15. Weighting factors by parent's gender and region profile

Profiles: Parent's Gender*Region	Unweighted n	Weighted n	Factor
Man British Columbia + Territories	61	57	0.9344
Man Alberta	21	29	1.3810
Man Manitoba/Saskatchewan	12	10	0.8333
Man Ontario	56	53	0.9464
Man Quebec	32	35	1.0938
Man Atlantic	20	12	0.6000
Woman British Columbia + Territories	17	20	1.1765
Woman Alberta	27	30	1.1111
Woman Manitoba/Saskatchewan	18	21	1.1667
Woman Ontario	64	68	1.0625
Woman Quebec	59	53	0.8983
Woman Atlantic	18	18	1.0000
Total	405	406	-

Table 16. Weighting factors by region profile

Profiles: Region	Unweighted n	Weighted n	Factor
British Columbia	78	77	0.9872

Alberta	48	59	1.2292
Saskatchewan	14	15	1.0714
Manitoba	16	16	1.0000
Ontario	120	121	1.0083
Quebec	91	88	0.9670
New Brunswick	16	11	0.6875
Nova Scotia	9	7	0.7778
Prince Edward Island	1	1	1.0000
Newfoundland	12	10	0.8333
Northwest Territories	0	0	-
Yukon	0	0	-
Nunavut	0	0	-
Total	405	405	-

Table 17. Weighting factors by parent's education level profile

Profiles: Education level	Unweighted n	Weighted n	Factor
University	258	186	0.7209
Not university	147	219	1.4898
Total	405	405	-

Table 18. Weighting factors by child's gender and age profile

Profiles: Child's Gender*Age	Unweighted n	Weighted n	Factor
Boy Under 1 year old	17	10	0.5882
Boy 1 year old	7	10	1.4286
Boy 2 years old	18	10	0.5556
Boy 3 years old	14	11	0.7857
Boy 4 years old	12	11	0.9167
Boy 5 years old	11	12	1.0909
Boy 6 years old	14	12	0.8571
Boy 7 years old	13	12	0.9231

Boy 8 years old	13	12	0.9231
Boy 9 years old	5	12	2.4000
Boy 10 years old	8	12	1.5000
Boy 11 years old	11	12	1.0909
Boy 12 years old	11	12	1.0909
Boy 13 years old	13	12	0.9231
Boy 14 years old	19	12	0.6316
Boy 15 years old	22	12	0.5455
Boy 16 years old	12	12	1.0000
Boy 17 years old	20	12	0.6000
Girl Under 1 year old	17	9	0.5294
Girl 1 years old	7	10	1.4286
Girl 2 years old	13	10	0.7692
Girl 3 years old	14	10	0.7143
Girl 4 years old	4	11	2.7500
Girl 5 years old	6	11	1.8333
Girl 6 years old	6	11	1.8333
Girl 7 years old	7	11	1.5714
Girl 8 years old	5	11	2.2000
Girl 9 years old	7	11	1.5714
Girl 10 years old	3	11	3.6667
Girl 11 years old	7	12	1.7143
Girl 12 years old	9	12	1.3333
Girl 13 years old	6	12	2.0000
Girl 14 years old	12	11	0.9167
Girl 15 years old	11	11	1.0000
Girl 16 years old	12	11	0.9167
Girl 17 years old	19	11	0.5789
Total	405	404	-

Appendix B – Questionnaire

Childhood Immunization Coverage Survey in Key Populations Survey (KPCICS): Health Care Worker Parents

Consent

[Si vous préférez répondre à l'étude en français, veuillez cliquer sur français dans le coin supérieur droit.](#)

This public health survey is sponsored by the Public Health Agency of Canada and focused on knowledge, attitudes and experiences about childhood immunization for key populations. The Public Health Agency of Canada has contracted an independent public opinion research company, Léger, to conduct the research on the Public Health Agency of Canada's behalf.

It 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 "Next" button to continue:

Privacy Statement

Participation in this study is voluntary and you can withdraw at any time. 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 are interrupted while doing the survey, you can click on the same link to pick up right where you left off. No personal identifying information will be linked to your survey responses nor shared with the survey sponsor. The results from partially completed or abandoned surveys will be deleted.

What You Will Be Asked to Do

You will be asked some demographic questions and questions related to childhood 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 improve the health and well-being of children from key Canadian populations by providing public health authorities with the information they need to ensure health equity.

Why are we collecting your information?

You will be asked questions, such as yours and your child’s 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, etc. The data collected will be stored on password-protected computers. However, in exceptional circumstances, individual responses in combination with other available information could lead to identifying you. The 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. 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 Léger on behalf of 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, Léger, will be responsible for collecting survey data from all participants. Once data collection is complete, Léger will provide the Public Health Agency of Canada with a dataset that will not include any individual responses to reduce the risk that you or your child could be identified. All the responses received will be grouped for analysis and presented in grouped form. Your responses will remain anonymous. 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.

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.

For any questions or concerns about the survey or the information we are collecting, please e-mail: email address

For technical support with the survey, accessibility requirements, or to request to

complete the survey over the phone you can contact: email address and phone number.

For more information about routine and catch-up immunization for infants and children in Canada: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html>

This project has been registered with the Canadian Research Insights Council (CRIC) (<https://canadianresearchinsightscouncil.ca/rvs/home/>) under number: 20240315-LE273.

CRIC Pledge: <https://www.canadianresearchinsightscouncil.ca/wp-content/uploads/2020/09/CRIC-Pledge-to-Canadians.pdf>

Section: Screening

FILT1

Thank you for deciding to participate in this study. First, please provide us with some general information about yourself.

Parent/Legal Guardian/PMK Sex at Birth

A4. What was **your** sex at birth?

- Male
- Female
- I don't know

Parent/Legal Guardian/PMK Gender

A5. What is **your** gender?

Help text: Gender refers to an individual's personal and social identity as a man, woman or a person who is not exclusively a man or a woman, for example, non-binary, agender, gender fluid, queer, or Two-Spirit.

- Woman (cis-gender woman or transgender woman)
- Man (cis-gender man or transgender man)
- Another gender, please specify
- I prefer not to answer

A12. What is your province or territory of residence?

- 1 Alberta
- 2 British Columbia
- 3 Manitoba
- 4 New Brunswick
- 5 Newfoundland and Labrador
- 6 Nova Scotia
- 7 Ontario

- 8 Prince Edward Island
- 9 Quebec
- 10 Saskatchewan
- 11 Nunavut
- 12 Northwest Territories
- 13 Yukon
- 14 I live outside of Canada

If A12 = Outside of Canada Thank you for your interest but for this survey, we are looking for individuals who live in Canada.

Parent/Legal Guardian/PMK Age

S1. How old are you? _____

- I prefer not to answer

S1a. *Show if S1 = "I prefer not to answer"*

To ensure you are eligible for this survey, can you tell us your age group?

- Under 18 *[END SURVEY]*
- 18 to 24
- 25 to 29
- 30 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or older

If S1 = "0 to 17 years" OR S1a = "Under 18": Thank you for your interest but for this survey, you must let us know if you are 18 years of age or older.

Parent/Legal Guardian/PMK Education

A8. What is the highest level of formal education that you have completed?

- Less than a high school diploma or equivalent
- High school diploma or equivalent
- Registered apprenticeship or other trade certificate or diploma
- College/CEGEP or other non-university certificate or diploma
- University certificate or diploma below bachelor's level
- University – bachelor's degree or equivalent
- University – post-graduate degree above bachelor's level or equivalent

- Other, please specify

-
- I prefer not to answer

Parent/Legal Guardian/PMK Occupational Group

S11. Are you currently employed as a health care worker? Please include paid and unpaid/volunteer work.

Help text: This includes employment as a physician, nurse, community health worker, pharmacist, laboratory worker, mental health professional, first responder/paramedic, health care administration, occupational or physical therapist, traditional healer, employees or staff who work, study, or volunteer in hospitals, long-term care, nursing home, and community settings, etc.

- Yes
- No
- I prefer not to answer

If S11= "No" Thank you for your interest, but for this survey, we are looking for individuals who are employed as health care workers.

S11a (*if S11="PNA"*)

To proceed with this survey, we need to ensure you are eligible for this survey: Are you currently employed as a health care worker?

-
- Yes
 - No

If S11a = "No" end of the survey. Thank you for your interest, but for this survey, we are looking for individuals, who are employed as health care workers.

CREATE HEALTH CARE WORKER IDENTIFIER:
Health care worker = NO if S11 = "No" OR S11a="No"
Health care worker = YES if S11 = "Yes" OR S11a="Yes"

Health Care Worker Role

A13. You previously indicated that you are a health care worker. What is your current role?

- Physician or medical doctor
- Nurse or nurse practitioner
- Community health worker

- Pharmacist/ pharmacy technician
- Laboratory worker in a medical laboratory
- Mental health professionals (e.g., psychologist, psychiatrist)
- First responders/paramedics
- Admin/support/managers
- Other health care worker, please specify: _____
- I prefer not to answer

Parent/Legal Guardian/PMK of Child(ren)

S2. Are you a parent or legal guardian or person most knowledgeable of a child(ren) under the age of 18?

Help text: The person most knowledgeable may include the child’s step-parent, adoptive parent, foster parent, sister or brother, grandparent or other relative caring and responsible for health decisions for the child.

- Yes
- No
- I prefer not to answer

If S2 = “No” OR “I prefer not to answer”: Thank you for your interest, but for this survey, we are looking for people who are parents or legal guardian or the person most knowledgeable of a child under the age of 18.

FILT2

Section: Introduction

The following questions ask you general questions about you and your child(ren) under the age of 18 you are a parent/legal guardian/person most knowledgeable of.

General Health

B3. In general, how would you describe your health?

Help text: By health, we mean not only the absence of disease or injury but also physical, mental and social well-being.

- Excellent
- Very good
- Good
- Fair

- Poor
- I don't know
- I prefer not to answer

You indicated that you are a parent or legal guardian or person most knowledgeable of a child(ren) **under the age of 18**.

S3. How many children **under the age of 18** are you a parent/legal guardian/person most knowledgeable of?

- None (*end survey*)
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 or more
- I prefer not to answer

If S3 = "None": Thank you for your interest, but for this survey, we are looking for people who are parents or legal guardians or the person most knowledgeable of a child under the age of 18.

S3b. *If S3 = "I prefer not to answer"*

For our analysis of the data, we need to know how many children under the age of 18 you are a parent/legal guardian/person most knowledgeable of.

To confirm, do you want to give this information?

- Yes, I will give this information (go back to S3)
- No, I will not answer (*end of the survey*)

If S3b= "No, I will not answer": Thank you for your interest, but for this survey, we are looking for people who are parents or legal guardians or the person most knowledgeable of a child under the age of 18.

We now have some questions about your child(ren) who is(are) **under 18 years of age**.

B2. How old is each child, starting with the oldest child?

1. 1st child
2. 2nd child (*show if S3 = 2, 3, 4, 5, 6, 7, 8, 9, 10*)
3. 3rd child (*show if S3 = 3, 4, 5, 6, 7, 8, 9, 10*)
4. 4th child (*show if S3 = 4, 5, 6, 7, 8, 9, 10*)
5. 5th child (*show if S3 = 5, 6, 7, 8, 9, 10*)
6. 6th child (*show if S3 = 6, 7, 8, 9, 10*)
7. 7th child (*show if S3 = 7, 8, 9, 10*)
8. 8th child (*show if S3 = 8, 9, 10*)
9. 9th child (*show if S3 = 9, 10*)
10. 10th child (*show if S3 = 10*)

- Under 6 months
- 6 months to less than 2 and a half years
- 2 and a half years to less than 5 years
- 5 years to less than 12 years
- 12 years to less than 18 years

Child Selection for Survey (data not retained by PHAC)

During the survey we would like to ask you about your child who is *[randomize age groups from B2]*.

Show if more than one child is in the same age group (B2): If you have more than one child in this age group, please think of the *[randomize: youngest/oldest]*.

In order to simplify your responses for the rest of the survey, please provide their initial(s) or a nickname which will be used to refer to this child throughout the survey. This information will be collected by Léger; it will not be transmitted to the Public Health Agency of Canada. It will only be used for you as a reference as you are completing this survey.

Please do not use your child's full name

Child's sex at Birth

A1. What was *<name/initial>'s* sex at birth?

- Female
- Male
- I prefer not to answer

Show if B2 = "Under 6 months"

B2ageunder6months. What is the exact age of <name/initial>?

- 1 month old
- 2 months old
- 3 months old
- 4 months old
- 5 months old
- I prefer not to answer

Show if B2 = "6 months to less than 2 and a half years"

B2age6monthslessthan2half. What is the exact age of <name/initial>?

- 6 months
- 7 months
- 8 months
- 9 months
- 10 months
- 11 months
- 1 year old
- 2 years old
- I prefer not to answer

Show if B2 = "2 and a half years to less than 5 years"

B2age2halflessthan5. What is the exact age of <name/initial>?

- 2 years old
- 3 years old
- 4 years old
- I prefer not to answer

Show if B2 = "5 years to less than 12 years"

B2agechild5to11. What is the exact age of <name/initial>?

- 5 years old**
- 6 years old
- 7 years old
- 8 years old
- 9 years old
- 10 years old

- 11 years old
- I prefer not to answer

Show if B2 = "12 years to less than 18 years"

B2agechild12to17. What is the exact age of **<name/initial>**?

- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years old
- 17 years old
- I prefer not to answer

B1. What is your relationship to **<name/initial>**?

- Mother
- Father
- Other relative (e.g., grandparent, uncle, aunt, sister, brother)
- Other, please specify : _____
- I prefer not to answer

B5. Does **<name/initial>** currently live in your household (primary or secondary residence)?

- Yes
- No
- I prefer not to answer

Section : Vaccination

The following questions are about vaccination.

A0. Overall, what is your perception of childhood vaccination?

- 1 I am generally in favour of childhood vaccination
- 2 I am generally uncertain about childhood vaccination
- 3 I am generally opposed to childhood vaccination

Childhood recommended Immunization Coverage

The next set of questions are about vaccines **recommended in Canada** for children. For these questions, please consider any vaccines that apply to <name/initial>, including vaccines received outside of Canada.

C1. Has <name/initial> ever been vaccinated?

Help text: Please consider any vaccines that <name/initial> has received.

- Yes
- No
- I don't know
- I prefer not to answer

C1a. *Show if C1 = "Yes" OR "I prefer not to answer"*

Has <name/initial> received any vaccines outside of Canada?

- Yes
- No
- I don't know
- I prefer not to answer

Routine Childhood immunization coverage

C2. *Show if C1 = "Yes" OR "I prefer not to answer"*

To the best of your knowledge, would you say that <name/initial> has received **all**, **some**, or **none** of the recommended routine vaccines for their age as of today?

If B2 = "Under 6 months": The following routine vaccines are offered in Canada for children **under 6 months of age**:

Help text: Some vaccines are given in combination with other vaccines or as stand-alone vaccines.

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Hepatitis B (HB)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)

More information can be found here: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html> (or direct link to PDF: <https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf>)

If B2 = "6 months to less than 2 and a half years": The following routine vaccines are offered in Canada for children **between birth and less than 2 and half years**:

Help text: Some vaccines are given in combination with other vaccines or as stand-alone vaccines.

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)

More information can be found here: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html> (or direct link to PDF: <https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf>)

If B2 = “2 and a half years to less than 5 years”: The following routine vaccines are offered in Canada for children **between birth and 4 years**:

Help text: Some vaccines are given in combination with other vaccines or as stand-alone vaccines.

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis and polio virus (Tdap-IPV)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up program in Quebec*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)

More information can be found here: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html> (or direct link to PDF: <https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf>).

If B2 = “5 years to less than 12 years”: The following routine vaccines are offered in Canada for children **between birth and 11 years**:

Help text: Some vaccines are given in combination with other vaccines or as stand-alone vaccines.

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis, polio virus (Tdap or Tdap-IPV)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up programs in Quebec and Nunavut*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C or Men-C-ACYW-135)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Human Papillomavirus (HPV)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)

More information can be found here: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html> (or direct link to PDF: <https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf>).

If B2 = "12 years to less than 18 years": The following routine vaccines are offered in Canada for children **between birth and 17 years:**

Help text: Some vaccines are given in combination with other vaccines or as stand-alone vaccines.

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis, polio virus (Tdap or Tdap-IPV)
- Tetanus, diphtheria (Td) (** Only recommended in Quebec*)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up programs in Quebec and Nunavut*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)

- Meningococcal (Men-C-C or Men-C-ACYW-135)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Human Papillomavirus (HPV)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)

More information can be found here: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html> (or direct link to PDF: <https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf>)

- All
- Some
- None
- I don't know
- I prefer not to answer

C2a. *Show if C2 = "Some"*

Which of the following recommended vaccines has **<name/initial>** **not** received, if eligible? Please select all that apply.

If B2 = "Under 6 months": The following routine vaccines are offered in Canada for children **under 6 months of age**:

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Hepatitis B (HB)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)
- I don't know
- I prefer not to answer

If B2 = "6 months to less than 2 and a half years": The following routine vaccines are offered in Canada for children **between birth and less than 2 and half years**:

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-C-23)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)
- o I don't know
- o I prefer not to answer

If B2 = "2 and a half years to less than 5 years": The following routine vaccines are offered in Canada for children **between birth and 4 years**:

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis and polio virus (Tdap-IPV)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up program in Quebec*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)
- o I don't know
- o I prefer not to answer

If B2 = "5 years to less than 12 years": The following routine vaccines are offered in Canada for children **between birth and 11 years**:

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis, polio virus (Tdap or Tdap-IPV)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up programs in Quebec and Nunavut*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C or Men-C-ACYW-135)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
- Rotavirus (Rota)
- Human Papillomavirus (HPV)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)
- o I don't know
- o I prefer not to answer

If B2 = "12 years to less than 18 years": The following routine vaccines are offered in Canada for children **between birth and 17 years**:

- Diphtheria, Tetanus, Pertussis, Polio Virus, Haemophilus influenzae Type b, Hepatitis B (DTaP-IPV-Hib or DTaP-HB-IPV-Hib)
- Tetanus, diphtheria, pertussis, polio virus (Tdap or Tdap-IPV)
- Tetanus, diphtheria (Td) (**Only recommended in Quebec*)
- Hepatitis B (HB)
- Hepatitis A and B (HAHB) (**Only recommended in Quebec*)
- Varicella/Chickenpox (**Only recommended in British Columbia, Ontario and Yukon with catch-up programs in Quebec and Nunavut*)
- Measles, Mumps, Rubella (MMR) or Measles, Mumps, Rubella, Varicella (MMR-V)
- Meningococcal (Men-C-C or Men-C-ACYW-135)
- Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)

- Rotavirus (Rota)
- Human Papillomavirus (HPV)
- Bacille Calmette-Guérin (BCG) (**Only recommended in Northwest Territories and Nunavut*)
- o I don't know
- o I prefer not to answer

Flu vaccination

Show if children aged 6 months or older And C1="Yes" or "I prefer not to answer"

C3a. Has **< name/initial >** ever received a seasonal influenza vaccine (also known as the flu shot)?

Help text: As of September 2023, the seasonal influenza (flu) vaccines have been included in the routine childhood vaccination schedule in all provinces and territories for children aged 6 months and older, with the exception of Quebec, where the flu vaccine is not part of the routine vaccination schedule but is still available and publicly funded for anyone aged 6 months and older.

For more information: <https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children.html>; [Public Funding for Influenza Vaccination by Province/Territory \(as of June 2023\) - Canada.ca](#)

- Yes
- No
- I don't know
- I prefer not to answer

C3b. *If C3a="Yes" or "Prefer not to answer"*

Between September 2023 and now, has **< name/initial >** received the seasonal influenza vaccine (also known as the flu shot)?

- Yes
- No
- I don't know
- I prefer not to answer

Section: Vaccination-Related Obstacles, Reasons & Hesitancy

Obstacles when Getting Child Vaccinated

C4. *Show if Parent is not opposed to vaccines (A0=1,2) AND (C2= " All", "Some", "None" OR C3a="Yes, "No")*

What obstacles, if any, have made it more difficult to get **<name/initial>** vaccinated with **one or more recommended routine** childhood and/or flu vaccines?

Please exclude COVID-19 vaccines

Please select all that apply.

Randomize all response options, except the two options.

- No obstacles (Exclusive)
- Difficult to book time off work/ school for a vaccine appointment*
- Getting transportation to a vaccination site was difficult*
- Language barrier*
- Previous negative experiences with the health care system*
- My child fears needles*
- At least one parent opposed it*
- No family doctor/primary care provider*
- Other, please specify: _____
- I don't know
- I prefer not to answer

*Levels marked with * are randomized*

Reasons for Not Getting Child Vaccinated

C5a. *Show if C1="No" OR C2 = "some" OR "none"*

What are the reasons <name/initial> has **not** been immunized with **one or more recommended routine** childhood vaccines?

Please exclude COVID-19 and flu vaccines. Please select all that apply.

Randomize answer options

-
- I did not know that one or more of the vaccine(s) was recommended for my child*
- I did not consider the vaccine(s) necessary for my child*
- Concerns about the safety and/or risk of side effects of the vaccine(s)*
- Not confident in the effectiveness of the vaccine(s)*
- Religious or philosophical reasons*
- My child has a medical exemption*
- It was not recommended for my child by a health care provider*
- My child is not yet eligible*
- Other, please specify _____
- I don't know
- I prefer not to answer

*Levels marked with * are randomized*

C5b. *Show if C1="No" OR C3a= "No"*

What are the reasons <name/initial> has **not** been immunized with the **flu** vaccine?

Please select all that apply.

Randomize answer options

- I did not know that this vaccine was recommended for my child*
- The flu is not that severe*
- I did not consider it necessary for my child*
- Concerns about the safety and/or risk of side effects of the vaccine*
- Not confident in the effectiveness of the vaccine*
- Religious or philosophical reasons*
- My child previously had a bad reaction to the flu vaccine *
- Other, please specify _____
 - I don't know
 - I prefer not to answer

*Levels marked with * are randomized*

Reasons for Overall Vaccine Acceptance

C7. Show if (C1 = "yes" and C2 = "all" OR "some") AND/OR (C1="yes" And C3a= "Yes")

What are the reasons <name/initial> received **one or more recommended routine childhood** and/or **flu** immunizations?

Please exclude COVID-19 vaccines.

Please select all that apply.

Was it:

- Advice from my doctor or health care provider*
- Advice from a friend or a family member*
- To protect my child from disease*
- To protect others from disease*
- I have confidence in the safety and/or benefits of vaccination*
- I know or knew someone who got a vaccine-preventable disease*
- I fear I may regret it later if I don't*
- Need it for daycare or school entry*
- Other
 - I don't know
 - I prefer not to answer

*Levels marked with * are randomized*

Hesitancy to Vaccinate Child

C9a. *Show if Parent is not opposed to vaccines (A0 = 1,2)*

Are you or were you hesitant to vaccinate <name/initial> with **one or more recommended routine** childhood immunizations? Please **exclude** flu and COVID-19 vaccines.

Help text: Vaccine hesitancy refers to a reluctance or delay in acceptance or refusal of vaccines despite availability.

- Yes, I **am** hesitant to get my child vaccinated with one or more vaccines
- Yes, I **was** hesitant to get my child vaccinated with one or more vaccines
- No
- I don't know
- I prefer not to answer

C9b. *Show if Parent is not opposed to vaccines (A0 = 1,2)*

Are you or were you hesitant to vaccinate <name/initial> with the **flu** vaccine?

Help text: Vaccine hesitancy refers to a reluctance or delay in acceptance or refusal of vaccines despite availability.

- Yes, I **am** hesitant to get my child vaccinated with the flu vaccine
- Yes, I **was** hesitant to get my child vaccinated with the flu vaccine
- No
- I don't know
- I prefer not to answer

Reasons for Hesitancy/Deciding not to Vaccinate Child

C10. *If C9a or C9b = "Yes, I am hesitant..." or "I was hesitant..."*

What are the reasons you are/were hesitant and/or decided **not** to get <name/initial> immunized with **one or more recommended routine** childhood and/or **flu** vaccines? Please **exclude** COVID-19 vaccines.

- My child is not at risk for infection*
- I wanted to discuss the vaccine(s) with my child's health care provider *
- Concerns about the effectiveness of the vaccine(s)*
- Concerns about the safety of the vaccine(s) and/or side effects*
- My child had a bad experience with previous vaccines*
- Do/did not know where to get reliable information*
- Religions or philosophical reasons*
- My child had a bad experience with health care providers*
- Concerns about racism or discrimination*
- Mistrust in vaccine-related information *

- Other, please specify: _____
- I don't know
- I prefer not to answer

*Levels marked with * are randomized*

Section: COVID-19 Immunization Coverage

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

C3c. *Show if child ever been vaccinated, C1 = "Yes" OR "I prefer not to answer" AND age of selected child, B2 = 6 months of age or older ("6 months to less than 2 and a half years" OR "2 and a half years to less than 5 years" OR "5 years to less than 12 years" OR "12 years to less than 18 years")*

Since the start of COVID-19 pandemic, how many doses of the COVID-19 vaccines has **<name/initial>** received overall?

Help text: In Canada, Moderna Spikevax and Pfizer-BioNTech Comirnaty are approved vaccines for use in children aged 6 months and older; and Novavax Nuvaxovid is an approved vaccine for use in children aged 12 years and older.

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

COVID-19 Vaccination-Related Reasons & Hesitancy

Reasons for COVID-19 Specific Immunization

C8. *Show if C3c = "1 dose" OR "2 doses" OR "3 doses" OR "4 doses" OR "5 doses or more" And age of selected child, B2 = 6 months of age or older ("6 months to less than 2 and a half years" OR "2 and a half years to less than 5 years" OR "5 years to less than 12 years" OR "12 years to less than 18 years")*

What are the reasons **<name/initial>** received a COVID-19 vaccine? Please select all that apply.

Randomize answer options

- To protect them against COVID-19 infection or severe outcomes*
- To protect household members against COVID-19 infection or severe outcomes*

- To protect them against long COVID (symptoms that last more than 12 weeks)*
- Based on public health recommendations*
- To prevent the spread of COVID-19 in my community*
- It was recommended by a health care provider*
- It did not cost me anything*
- Other
 - o I don't know
 - o I prefer not to answer

C3d. *Show to at least one dose (C3c = 1,2,3,4 or 5 doses or more) OR C3c= Prefer not to answer*

From September 2023 to now, has **<name/initial>** received a COVID-19 vaccine?

- o Yes
- o No
- o I don't know
- o I prefer not to answer

*Levels marked with * are randomized*

Hesitancy to Vaccinate Child against COVID-19

C9c. *Show to all children 6 months or older (age, B2 = "6 months to less than 2 and a half years" OR "2 and a half years to less than 5 years" OR "5 years to less than 12 years" OR "12 years to less than 18 years"), AND if Parent is not opposed to vaccines (A0 = 1,2)*

Are you or were you hesitant to vaccinate **<name/initial>** against **COVID-19**?

Help text: Vaccine hesitancy refers to a reluctance or delay in acceptance or refusal of vaccines despite availability.

- o Yes, I **am** hesitant to vaccinate my child against COVID-19
- o Yes, I **was** hesitant to vaccinate my child against COVID-19
- o No
- o I don't know
- o I prefer not to answer

Reasons for Hesitancy/Decided not to Vaccinate Child (COVID-19 Vaccines)

C11. *Show if selected child age, B2 = “6 months to less than 2 and a half years” OR “2 and a half years to less than 5 years” OR “5 years to less than 12 years” OR “12 years to less than 18 years” And if C9c = “Yes, I am hesitant to vaccinate my child against COVID-19” OR “Yes, I was hesitant to vaccinate my child against COVID-19”*

What are the reasons you are /were hesitant and/or decided not to get a COVID-19 vaccine for <name/initial>? Select all that apply.

- My child fears needles*
- Do/did not consider it is/was necessary*
- My child is not at risk of getting COVID-19 or at risk of severe infection*
- I want(ed) to first discuss COVID-19 vaccines with my child’s health care provider *
- Concerns that not enough research on the vaccine has been done in children *
- Concerns about the effectiveness *
- Concerns about the safety and/or side effects *
- My child had a bad experience with previous vaccinations*
- Religious or philosophical reasons*
- My child had a bad experience with health care providers*
- Concerns about racism or discrimination*
- Mistrust in COVID-19 vaccine-related information*
- I do not trust the government or pharmaceutical companies*
- I did not know where to get reliable information *
- Other
 - I don’t know
 - I prefer not to answer

*Levels marked with * are randomized*

Section: Intention to vaccinate child

The following questions ask you about your intention to vaccinate the child.

D1a. *Show if parent not opposed to vaccines (A0=1,2) (regardless of child’s age)*

How likely is it that you will get <name/initial> vaccinated with the recommended routine childhood and/or flu vaccines **in the future**? Please exclude COVID-19 vaccines.

- Definitely will
- Probably will
- Probably won’t
- Definitely won’t
- Not applicable, my child has received all recommended routine childhood and flu vaccines [*exclusive, show if selected child age, B2 = “12 years to less than 18 years”*]
- I don’t know

- I prefer not to answer

D1b. *Show if parent not opposed to vaccines (A0=1,2) (regardless of child's age)*

How likely is it that **<name/initial>** will receive a COVID-19 vaccine according to **future** public health recommendations?

Help text: In Canada, Moderna Spikevax[®] XBB.1.5 and Pfizer-BioNTech Comirnaty[®] Omicron XBB.1.5 are currently approved for use for individuals 6 months of age and older, regardless of whether they have previously received a COVID-19 vaccine; Novavax NuvaxovidTM XBB.1.5 is also approved for use for individuals 12 years and older.

- Definitely will
- Probably will
- Probably won't
- Definitely won't
- I don't know
- I prefer not to answer

Show to only those who are opposed to vaccines (A0 =3)

D1c. We acknowledge that you previously indicated that you are generally opposed to childhood vaccines.

How likely is it that **<name/initial>** will receive the following vaccines according to **future** public health recommendations?

1. Recommended routine childhood vaccines
2. Flu vaccines
3. COVID-19 vaccines

- Definitely will
- Probably will
- Probably won't
- Definitely won't
- I don't know
- I prefer not to answer

Section: Knowledge, Attitudes and Beliefs

The following questions ask you about your knowledge, attitudes and beliefs regarding vaccines.

Parent's perceived safety and effectiveness of vaccines for children

D2. *For all children*

Please rate your level of agreement with the statements below:

In general, I believe that **routine childhood vaccines** are **safe**.

In general, I believe that **routine childhood vaccines** are **effective**.

In general, I think that **COVID-19 vaccines** are **safe** for children.

In general, I think that **COVID-19 vaccines** are **effective** for children.

In general, I believe that the **flu vaccine** is **safe** for children.

In general, I believe that the **flu vaccine** is **effective** for children.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

Change in Vaccine Attitudes and Beliefs

We are interested in understanding how the COVID-19 pandemic could have influenced your perspective on recommended routine childhood vaccines (e.g., MMR, Pertussis, Rotavirus) and flu vaccines.

D6. *For all children*

Has the COVID-19 pandemic changed the way you think about childhood routine vaccines? Please **exclude** COVID-19 and flu vaccines.

- The pandemic **has not changed** how I think about routine vaccines
- The pandemic has made me realize that routine vaccines are **more important than I had thought**
- The pandemic has made me realize that routine vaccines are **less important than I had thought**
- I Don't know
- I prefer not to answer

D7. *For all children*

Has the COVID-19 pandemic changed the way you think about flu vaccines for children?

- The pandemic **has not changed** how I think about flu vaccines
- The pandemic has made me realize that flu vaccines are **more important than I had thought**
- The pandemic has made me realize that flu vaccines are **less important than I had thought**
- I Don't know
- I prefer not to answer

Vaccine Knowledge, Attitudes and Beliefs

For all children

D5a. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I think that vaccines, in general, help to protect my child's health.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5b. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

In general, I am concerned about the potential side effects from vaccines for children.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5c. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

In general, I believe the use of alternative practices, such as homeopathy or naturopathy, can eliminate the need for vaccination.

- Strongly agree
- Somewhat agree

- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5d. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

In general, I believe a healthy lifestyle such as healthy nutrition and hygiene can replace the need for vaccination.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5e. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I think that having my child vaccinated helps to protect the health of others in my family and/ or community.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5f. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I think that most parents in my community have their children vaccinated with recommended routine childhood vaccines, and against flu and/or COVID-19.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5g. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I believe children receive too many vaccines at the same visit.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5h. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I believe children receive too many vaccines, overall.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5i. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I believe vaccination is a safer way to build immunity against disease than getting infected.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- I don't know
- I prefer not to answer

D5j. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I believe delaying child vaccines causes risks to their health.

- Strongly agree
- Somewhat agree

- o Somewhat disagree
- o Strongly disagree
- o I don't know
- o I prefer not to answer

D5k. Please rate the extent to which you agree or disagree with the following statements about childhood immunizations:

I believe unvaccinated children are at higher risk of getting some serious diseases, including COVID-19.

- o Strongly agree
- o Somewhat agree
- o Somewhat disagree
- o Strongly disagree
- o I don't know
- o I prefer not to answer

Sources of Information on Immunization

D3. *For all children*

Which of the following sources of information would you be most likely to consult in order to find information about childhood immunization?

Please select all that apply.

- Health care providers*
- Family/friends*
- Social media (e.g., X (formerly called Twitter), Facebook)*
- Official sources from public health units/clinics *
- Official sources from a provincial/territorial Ministry of Health*
- Official sources from the Public Health Agency of Canada or Health Canada *
- Community nursing stations or clinics*
- News channels or print media*
- Scientific publications or journals*
- National Advisory Committee on Immunization (NACI)*
- International health authorities (e.g., World Health Organization (WHO))*
- Indigenous organizations or Friendship Centres (e.g., First Nations Health Authority)*
- Other
- I do not seek information on immunization (*Exclusive*)
- o I don't know
- o I prefer not to answer

Section: Sociodemographics

Child's Sociodemographic Information

The next few questions will help us understand background characteristics of children in this survey. Remember that all the information you provide is completely anonymous and will be kept confidential.

For these questions, please consider **<name/initial>**.

Child's Gender

Show if child's age: 12 -17

To align with Canada's overall approach to public awareness and sensitivity towards 2SLGBTQI+ communities, it is **recommended** that we ask the following question to older children.

A2a. To the best of your awareness, is **<name/initial>**'s gender the same as their sex at birth?

Help text: *Gender refers to an individual's personal and social identity as a boy, girl or a person who is not exclusively a boy or girl, for example, non-binary, agender, gender fluid, queer, or Two-Spirit.*

- Yes
- No
- Prefer not to answer
- Don't know

A2b. *Show if A2a= "No"*

What is **<name/initial>**'s gender?

- Girl
- Boy
- Another gender
- Prefer not to answer

Child's Ethnicity/Culture

A3. What is < <name/initial> >'s racial or ethnic background? We recognize this list of racial or ethnic identifiers may not exactly match how you would describe your child. Please select all that apply.

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

Parent/Legal Guardian/PMK Sociodemographic Information

We would now like to ask you a few questions about your general background.

Parent/Legal Guardian/PMK Sexual Orientation

A6. What is your sexual orientation?

- Gay
- Lesbian
- Bisexual or Pansexual
- Heterosexual (“straight”)
- Other sexual orientation, please specify:

- I prefer not to answer

Ethnicity/Culture

Our racial and ethnic identities may shape how we are treated by different individuals and institutions.

A7. What is your racial or ethnic background? We recognize this list of racial or ethnic identifiers may not exactly match how you would describe yourself. Please select all that apply.

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

Household Income

A9. Please indicate your **total household income**, before taxes and deductions, for the year **ending December 31, 2023**. Your total household income consists of the total amount of money earned by all household members.

- Under \$20,000
- \$20,000 to just under \$40,000
- \$40,000 to just under \$60,000
- \$60,000 to just under \$80,000
- \$80,000 to just under \$100,000
- \$100,000 to just under \$150,000
- \$150,000 and above
- I prefer not to answer

Geographic Location

A10. *Show to all*

Do you live in a community with a population of fewer than 1,000 people?

- Yes
- No
- I don't know
- I prefer not to answer

Section: End of Survey

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 invaluable and insightful information about childhood immunization coverage in Canada.

Help text with supports: [GET HELP HERE: MENTAL HEALTH SUPPORT](#) offers free mental health and substance use support as well as online mental health resources. offers free mental health and substance use support as well as online mental health resources.

Show if A7 = Indigenous (First Nations, Métis and/or Inuk (Inuit))

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 immunization in Indigenous communities across Canada.

Help text with supports: 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](#) 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

Help text with supports: [GET HELP HERE: MENTAL HEALTH SUPPORT](#) offers free mental health and substance use support as well as online mental health resources