



Childhood Immunization Coverage Survey in Key Populations (KPCICS) – Urban Indigenous Parents

Final Report

Prepared for Health Canada

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Supplier name: EKOS Research Associates Inc.

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This public opinion research report presents the results of an online survey conducted by EKOS Research Associates Inc. on behalf of Health Canada. The research study was conducted with 231 urban Indigenous parents, legal guardians or persons making health care decisions for children under 18, collected between March 30 and June 1, 2023.

Cette publication est aussi disponible en français sous le titre: Enquête sur la couverture vaccinale des enfants dans les populations clés (ECVEPC) : Parents autochtones urbains.

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EXECUTIVE SUMMARY

A. BACKGROUND AND OBJECTIVES

Vaccines have proven to be an effective tool to reduce or eliminate diseases. An examination of Canadian cases has shown that routine childhood vaccines have eliminated polio, reduced the observed cases of measles, mumps, rubella, and diphtheria by 99%, and reduced cases of whooping cough by 87%¹. Surveillance data, however, suggests that vaccine coverage in Canada is uneven.

The childhood National Immunization Coverage Survey (cNICS) measures the immunization status of the general population of children in Canada and collects data on parental knowledge of vaccines and the diseases they prevent. The cNICS helps to determine coverage and changes in update of recommended immunization schedules, provides international organizations with estimates of coverage of specific vaccines in Canada, and provides information on parent and guardian knowledge and beliefs about vaccines².

The data produced from the cNICS is limited in the ability to provide information from children in all age ranges, and from key at-risk populations. Further, the COVID-19 pandemic has increased the discussion of vaccines and shifted the knowledge, attitudes and beliefs of some Canadians. The prevalence of vaccine hesitancy and refusal of COVID-19 vaccines for some has resulted in the need to understand the implications on childhood immunization coverage, and any education support needed to promote continued vaccination among children.

The Public Health Agency of Canada (PHAC) intends to address data coverage gaps related to at-risk populations through a new surveillance initiative: the Childhood Immunization Coverage Survey Among Key At-Risk Populations (KPCICS) in Canada. This study was conducted among Urban Indigenous who are parents, legal guardians, or persons most knowledgeable for a child or children aged 17 or younger.

¹ Public Health Agency of Canada. *Vaccines Work*. October 9, 2019. Online: [Infographic: Vaccines Work - Canada.ca](#)

² Statistics Canada. Childhood National Immunization Coverage Survey (CNICS). August 8, 2022. Online: [Childhood National Immunization Coverage Survey \(CNICS\) \(statcan.gc.ca\)](#)

Study Objectives

This survey provides up-to-date childhood vaccine coverage data specific to urban Indigenous people who have children. The opinions and views of parents, guardians, or persons most knowledgeable collected will help to inform the following areas:

- Their child's immunization uptake, as well as vaccine hesitancy and vaccine refusal, the reasons for vaccine hesitancy and the impact on routine childhood immunization.
- The unknown effects of the COVID-19 pandemic on concurrent childhood immunizations to determine priorities for vaccine-preventable diseases, with the aim of identifying whether catch-up routine immunization campaigns are required.

Specifically, the surveillance project collected 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/ legal guardian/ other PMK's knowledge, attitudes and beliefs (KAB) toward child's immunization;
- Sources of information on immunization, including routine childhood vaccines and COVID-19 vaccines; and,
- Sociodemographic characteristics that are linked to inequalities in vaccination uptake.

B. METHODOLOGY

The survey sample includes 231 respondents who indicated that they are an Indigenous person who is 18 years of age or older, living in an urban community³ and are also a parent or legal guardian or person responsible for health decisions for a child 17 years of age or younger. Eligible parents indicated the number of children 17 years of age or younger that they are a parent, legal guardian or person most knowledgeable for. One child was then randomly selected as the child that the parent would complete the survey about. All analyses provided herein are in regard to immunization experiences relating to the randomly selected child.

The primary sample source used was our in-house *Probit* panel of randomly recruited Canadians. The survey was intended to be administered online among eligible participants recruited from the panel, though a proportion of participants was to be recruited through

³ Included those living in communities with 1,000 or more residents. First Nations parents living in rural areas (i.e., with fewer than 1,000 residents) were included in the sample provided they do not live on a reserve.

telephone if the panel source was not sufficient to achieve the intended sample size. Because we did not expect that our in-house panel would be sufficient to complete the number of cases required, we supplemented our in-house panel sample with a nationally representative sample, including landlines selected through random digit dialing (RDD), as well as cell phone sample in a 30%:70% ratio. The screened sub-sample completed the survey by telephone. Although the original intent was to include 350 respondents in the final sample, we collected 231 but were unable to collect the remaining 119 responses with urban Indigenous parents, due in part to considerably higher than expected refusal rates, and an eligibility rate that was lower than expected.

A total of 111 of the 231 were completed by telephone in order to maximize the sample of completed cases (87 completed with panel members and 24 completed with members of the general public through RDD sample). Half of the sample (n=120) was completed online by panel members. Each panel member received one initial email invitation and up to three email reminders. About half of sampled panel members received between one and four follow-up telephone calls, although many received up to nine calls over the course of six weeks.

The Probit panel is assembled using an RDD process for sampling from a blended land-line cellphone frame, which provides full coverage of Canadians with telephone access. The distribution of the recruitment process is meant to mirror the actual population in Canada (as defined by Statistics Canada). As such, our more than 120,000-member panel can be considered representative of the general public in Canada (meaning the incidence of a given target population within our panel very closely resembles the public at large) and margins of error can be applied. All households/individuals in the Probit panel are contacted by telephone, the nature of the panel is explained in greater detail (as are our privacy policies), and demographic information is collected. At this time, the online/off-line as well as landline/cellphone status is ascertained in order to determine the method of completing surveys (i.e., online, telephone, or mail). Ongoing activities take place several times each year to monitor, maintain, and refresh the panel. These activities include review of data quality and participation rates, and ongoing recruitment of new panel members.

The online survey was conducted between March 30 and June 1, 2023. Appendix A provides details on the characteristics of the sample. The randomly recruited probability sample carries with it a margin of error⁴ of +/-6.5%. The margin of error for most segments within the sample

⁴ Level of precision associated with each sample segment for which results are isolated in the survey (i.e., results are expected to be within this range of the reported findings, 19 times out of 20).

for which results were isolated is between +/-8% and +/-14%⁵. Results were not isolated for segments with fewer than 10 responses to ensure that confidentiality was not compromised, and due to higher imprecision (i.e., margin of error) associated with small sample sizes. The primary sample source was an in-house *Probit* panel of randomly recruited Canadians⁶. The survey instrument was delivered online as well as by telephone and available in both official languages. The average length of the survey was 14 minutes online and 22 minutes by telephone. The overall response rate for the survey was 18%. [Appendix A](#) presents further details on the methodology for the survey.

The survey sample was not weighted since no population figures were available for the precise population reflected in the sample (i.e., Indigenous parents living in communities of 1,000 or more residents, with the exception of First Nations parents living off-reserve) as well as due to small number of survey respondents.

C. KEY FINDINGS

Urban Indigenous parents were asked for their description of their physical and mental health using a five-point scale from “poor” to “excellent”. Both physical health and mental health were rated moderately with 77% describing their physical health as “good” to “excellent”, and 74% saying the same about their mental health. Another 23% and 25%, respectively, described their physical and mental health as only “fair” or “poor”.

Childhood Vaccination

Among all parents in the sample, 93% indicated that their child had received at least “some” of the recommended vaccines for their age, with 58% of these reporting that they received “all” of the recommended routine childhood vaccines. Among the parents indicating that their child had received “some” (but not “all”) of the recommended routine childhood vaccines for the child’s age, these were most commonly the vaccine for influenza (42%), Human Papillomavirus (HPV) vaccine (29%), the Hepatitis A and B combined vaccine (28%), Hepatitis B (26%), Chickenpox vaccine (26%) or the Diphtheria, Tetanus or Pertussis vaccine (24%). One in five children who had received only “some” recommended vaccines for their age group did not receive the rotavirus (21%), polio (20%), measles, mumps or rubella (20%) vaccines.

⁵ The margin of error is between 8% and 16% in 19 of the 22 segments, however, it is +/-16% among parents of children who are between six months and under 5 years of age, and those living in Quebec or the Atlantic. It is +/-19% among Inuit parents.

⁶ *Probit* panellists were selected using a random-digit dial (RDD) landline-cell phone hybrid sample frame.

The majority of parents (62%) said they did not encounter any obstacles that made it more difficult to get their child vaccinated. However, fear of needles (8%), difficulty booking time for the appointment (7%) and issues with access to health care (6%) were noted most often when there were obstacles. Four percent of parents indicated parental opposition to one or more of the recommended vaccines. Among parents whose child did not receive one or more of the recommended vaccines, more than one in four (27%) said they did not consider one or more of the recommended vaccines to be necessary, and 20% had concerns about the risk of side effects of vaccines.

The primary reason stated by parents for immunizing their child is to protect their child themselves, and others from disease (73%). The second most common reason was that they received advice from their doctor or health care professional (60%). Half indicated that the benefits are more important than the risks (51%).

Just over one in five (22%) parents said that they are or have been hesitant in the past about their child receiving one or more of the recommended routine childhood vaccines. Among these parents, 60% have concerns about the safety of the vaccine and/or side effects, 24% indicated mistrust of vaccine-related information, and 22% have concerns about the effectiveness of the vaccine(s).

COVID-19 Vaccination

Two in three parents (67%) indicated that their child has received a COVID-19 vaccine; including 6% who received one dose, 36% received two doses, and 26% with three or more doses. Parents reported a multitude of reasons for vaccinating their child against COVID-19, including to protect themselves and/or household members against COVID-19 infection and/or severe outcomes (69%). Close to half of parents said their child received a COVID-19 vaccine to protect themselves against long COVID (47%), or to prevent the spread of COVID-19 in their community (46%). Four in 10 said their child received a COVID-19 vaccine based on public health recommendations (41%) and slightly fewer indicated it was to help restore a more normal life (36%). Close to half of parents (46%) are or have been hesitant to vaccinate their child against COVID-19; the majority indicated this is because of concerns of the safety of the vaccine and/or side effects (58%) or that not enough research on the vaccine has been done on children (52%).

Views about Vaccination

Prior to the COVID-19 pandemic, 93% of parents believed that vaccines were safe and effective for children. In general, 36% of parents agree that their views about vaccines have changed since the pandemic. While nine in ten parents believe that vaccines were effective (89%) and safe (87%), this is reduced to 65% when it comes to safety of the COVID-19 vaccines and 61% with regard to the effectiveness of the COVID-19 vaccines. While 77% of parents expect they will get their child vaccinated with the recommended childhood routine vaccines in the future, much fewer (52%) will get their child vaccinated with the COVID-19 vaccine.

Parents were asked to react to a series of positive and negative statements about childhood immunizations. In terms of reactions to positive statements, 92% of parents agree that vaccines help protect their child's health and 83% of parents agree that having their child vaccinated protects others in the family and community. More than seven in 10 (74%) parents also agree that unvaccinated children are at higher risk of getting some serious diseases, including COVID-19. More than two in three believe that most parents have their child vaccinated (70%) and the same proportion (65%) agree that delaying childhood vaccines causes risk to their child's health.

When considering negative statements, 74% of parents disagree that the use of alternative practices such as homeopathy or naturopathy can eliminate the need for vaccination. Two in three (65%) disagree that a healthy lifestyle can replace the need for vaccination, although 31% agree. Two in three (65%) also disagree that children receive too many vaccinations overall; however, 25% agree with this view. Just over half (58%) parents disagree that it is better to develop immunity from having a disease rather than from a vaccine; however, 34% agree. The same proportion of parents agree that children receive too many vaccines at the same visit (34%).

Sources of Childhood Immunization Information

Most parents said they would be most likely to consult health care providers (78%), the Public Health Agency of Canada or Health Canada (60%), or their local public health unit or clinic (58%) in order to find information about childhood immunization. About half would consult scientific publications and journals (53%), the Ministry of Health within their province or territory (50%), or a community nursing stations or clinics (46%). Fewer would refer to international organizations (39%), the National Advisory Committee on Immunization (NACI) (38%) or an Indigenous organization (34%). Other sources include the family and friends (26%), news or media (23%), or social media (12%).

D. NOTE TO READERS

Detailed findings are presented in the sections that follow. Overall results are presented in the main portion of the narrative and are typically supported by graphic or tabular presentation of results. The programmed survey instrument can be found in Appendix B.

It should be noted that the survey asks a number of questions about behaviours that may have a tendency to exert pressure to respond in a socially desirable way for respondents to under-report their attitudes and behaviours related to vaccine hesitancy⁷. Results for the proportion of respondents in the sample who either said “don’t know” or did not provide a response are not indicated in the graphic representation of the results of survey questions where multiple responses were possible, particularly where they are not sizable (i.e., 10% or less). Results may also not total 100% due to rounding or where multiple responses could be provided.

E. CONTRACT VALUE

The contract value for the POR project is \$39,299.12 (including HST).

⁷ Ivar Krumpal, “Determinants of Social Desirability Bias in Sensitive Surveys: A Literature Review”, *Quality and Quantity*, June 2013, Volume 47, Issue 4, pp. 2025-2047.

F. POLITICAL NEUTRALITY CERTIFICATION

I hereby certify as Senior Officer of EKOS Research Associates Inc. that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Policy on Communications and Federal Identity and the Directive on the Management of Communications. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leaders.

Signed by:



Susan Galley (Vice President)

DETAILED FINDINGS

A. KEY CHARACTERISTICS OF THE SAMPLE

Characteristics of the Sample

As shown in Table 4 (Appendix A), 48% of parents (n=110) in the sample are First Nations, including 14 who live in a rural area with fewer than 1,000 residents. Just under half (45%) are Métis (n=104) and only 11% (n=26) are Inuit⁸. In terms of age of the parent, 41% are between 35 and 44 years of age and 35% are between 45 and 54 (6% are under 30 and 15% are over 55), and 45% describe themselves as women, 48% describe themselves as a man and 3% indicated “other” gender. Eight in 10 (82%) are the birth parent, and 94% live with the child (primary or secondary residence).

Most parents in the sample live in Ontario (27%), the Prairies including Manitoba, Saskatchewan or Alberta, or British Columbia or the territories (25%) (Table 4). Nine percent live in Quebec and seven percent live in the Atlantic region.

Just under one in five (19%) have less than or equivalent to a high school level of education. Just over one in three (42%) have a college level of education, or university diploma or certificate below a Bachelor’s degree. The remaining 39% have a Bachelor’s degree or higher level of education. One in five (21%) indicated their household income to be under \$60,000, 23% said it is between \$60,000 and under \$100,000; 24% reported a household income of \$100,000 to \$150,000, and 25% reported it to be more than \$150,000.

Parents responding to the survey were asked to indicate the number of children, as well as ages of the children in the household. In households with more than one child, one of the children was randomly selected in order to enable parents or guardians to respond to specific questions about immunization. One in seven (16%) respondents selected a child in the household who is

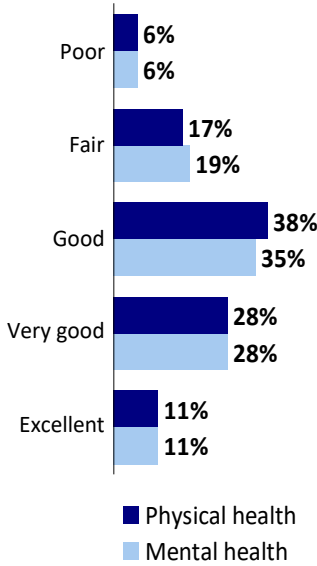
⁸ Nine individuals identified as both First Nations and Métis. Having the option to select more than one response enabled accurate estimates of Indigenous identity within the sample. Responses for these nine individuals are included in the majority of the analysis (total, region, parent education, child age, etc.). These cases were excluded, however, in the comparison of results based on Indigenous identity, since the presence of these cases has the potential to reduce the ability to detect differences between these two groups of parents.

under five years of age, while 37% indicated the age of the selected child to be between five and 12 years of age and 47% selected a child who is 12 to 17. The sex at birth of the selected child is male in 52% of cases and female in 48% of cases.

Rating of Physical and Mental Health of Parent

Parents were asked for their description of their physical and mental health using a five-point scale from poor to excellent. Results suggest that urban Indigenous parents’ physical health is moderately good given that 23% described it as fair (17%) or poor (6%). Another 38% described it as good, 28% said it is very good and 11% rate it as excellent. Parents’ description of their mental health, however, is roughly the same, with 25% rating it as “fair” to “poor”, 35% rating it as good and close to four in ten rating is as “very good” (28%) or “excellent” (11%).

Chart 1: Rating of Physical and Mental Health of Parent



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

Base: All respondents, n=231

B4. In general, how would you describe your mental health?

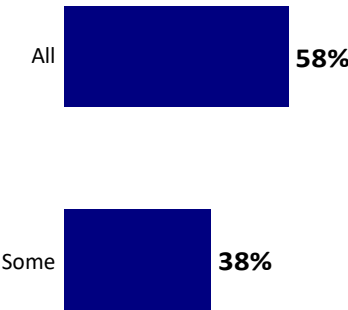
Base: All respondents, n=231

B. IMMUNIZATION

Vaccination Status

Among all parents in the sample, 93% indicated that their (randomly selected) child had ever been vaccinated. Six percent said that their child had not been vaccinated and the remaining few respondents preferred not to answer or said they did not know. Among the 93% who said their child had been vaccinated at some point, 58% indicated that they received all of the recommended routine childhood vaccines for the child’s age. Just over one in three (38%) said that they had received some of the recommended vaccines and 3% said they don’t know or preferred not to answer.

Chart 2: Vaccination Status of Child



C2. To the best of your knowledge, would you say that your child has received all, some, or none of the recommended vaccines for their age?

Base: Parents saying their child had been vaccinated at some point, n=218

Among the parents indicating that their child had received “some” (but not “all”) of the recommended routine vaccines for the child’s age, 42% of parents said the child had not received the vaccine for influenza⁹. About three in 10 parents of children five years of age or older said the child had not received the Human Papillomavirus (HPV) vaccine (29%). About the same percentage of parents of children who are six months of age or older (28%) said the child

⁹ It should be noted that the figure for influenza may be overestimated given that this is an annual vaccine, and therefore, may have been reported by some parents as “not received” in the recent past, although it may have been received in earlier years.

did not receive the Hepatitis A and B vaccine. The Hepatitis B vaccine had not been received by 26% of children who have not received “all” vaccines for their age. Among children who had not “all” recommended routine vaccines for their age group, 25% did not receive chickenpox and 24% did not receive the diphtheria, tetanus and pertussis vaccines. One in five did not receive the rotavirus vaccine (21%), polio (20%) or measles, mumps, rubella (20%) vaccines. Between 15% and 19% missed one of the other vaccines noted in Table 1 below.

Table 1: Child Routine Vaccinations Not Received

<i>Which of the following recommended vaccines has CHILDI not received? (multiple responses)</i>	<i>n=89 Those receiving “some” vaccines</i>
Influenza (flu) *	42%
HPV (Human Papillomavirus) ***	29%
Hepatitis A and B (combined vaccine) *	28%
Hepatitis B (Hep B or HB)	26%
Chickenpox (Varicella or Var) *	25%
Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)	24%
Rotavirus (Rota)	21%
Polio (IPV)	20%
Measles, Mumps, Rubella (MMR) *	20%
Measles, Mumps, Rubella, Varicella (MMRV) *	19%
Meningococcal (Men, Men-C-C or Men-C-ACYW-135) ***	16%
Rubella	16%
Haemophilus influenzae Type b (Hib)	15%
Pneumococcal (Pneu-C-13, Pneu-C-10, or Pneu-P-23) **	15%
I don't know	24%
Pneumococcal (Pneu-C-13, Pneu-C-10) ****	2%
I prefer not to answer	2%

* Child 6 months of age or older

** Child two and a half years of age or older

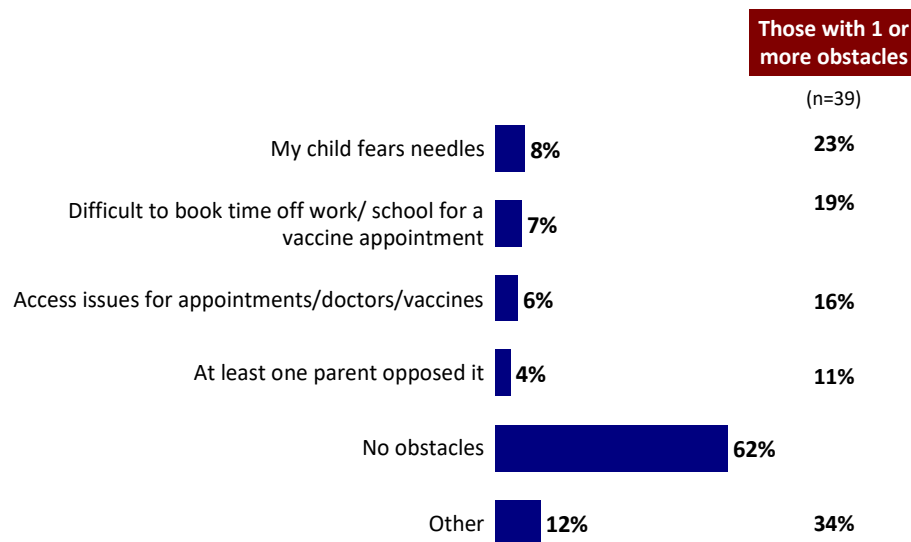
*** Child five years of age or older

**** Child under two and a half years of age

Obstacles to Vaccination

Parents were also asked what obstacles, if any, they encountered that made it difficult to get their child vaccinated. Six in ten parents (62%) said they did not encounter any obstacles, including 72% of parents reporting that their child received “all” recommended vaccines for their age, and 53% of parents reporting that their child received “some” recommended vaccines. A child’s fear of needles was noted by 8% of parents, and difficulty booking time for the appointment was noted by 7% of parents. Six percent of parents noted issues with access to health care and 4% indicated opposition by at least one parent. Exclusively among parents reporting at least one obstacle, 23% noted a child’s fear of needles and 19% cited difficulties booking an appointment. Only one in ten parents noting an obstacle indicated parental opposition (11%).

Chart 3: Obstacles to Getting Child Vaccinated



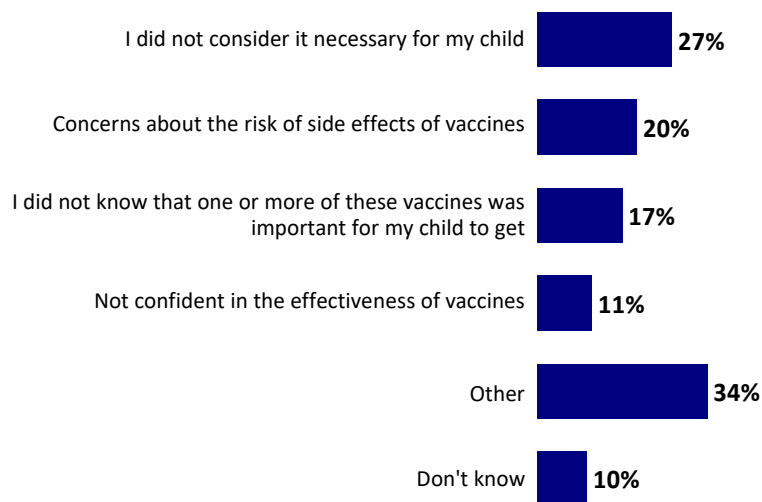
C4. What obstacles, if any, have made it more difficult to get your child vaccinated with one or more of the recommended childhood vaccines?
(multiple responses)

Base: All respondents, n=231. Note: Responses shown for 4% or higher (n=9 or more)

Reasons for Not Immunizing

Among parents indicating that their child has received “some” of the recommended routine vaccines, more than one in four (27%) said they did not consider one or more of the recommended vaccines to be necessary¹⁰. One in five (20%) expressed concerns about the risk of side effects vaccines. One in six (17%) said they were not aware that one or more of the vaccines are important for their child to receive and 11% said they are not confident in the effectiveness of the vaccines.

Chart 4: Reasons for Not Immunizing Child



C5. For what reason(s) has your child not been immunized with one or more recommended childhood vaccines? Please exclude COVID-19 vaccines. (multiple responses)

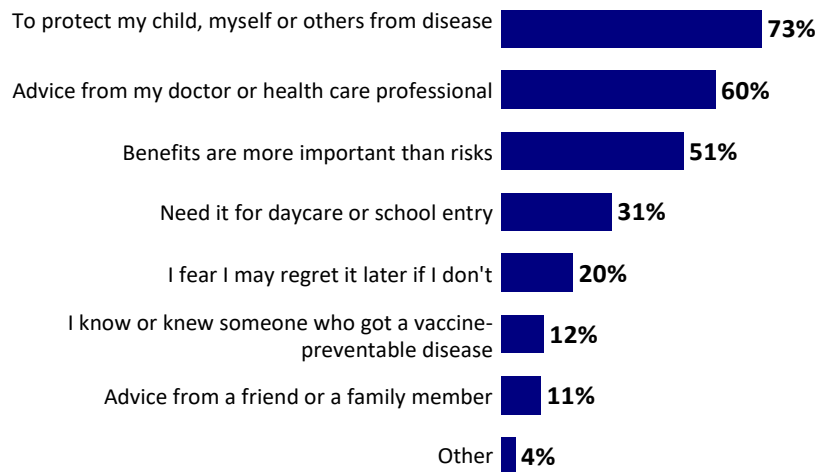
Base: Those who have received some recommended vaccines, n=83. Note: responses shown for 10% or higher (n=8 or more)

¹⁰ Of the 13 parents indicating that their child has never been vaccinated, 2 of the children were one month old and therefore too young to be vaccinated. A third child was between one and four years of age. Ten of the 13 parents indicated children 5 years of age or older. Data for the reasons for not immunizing the child was not collected for these cases.

Reasons for Immunizing

Among the parents who said their child received “some” or “all” of the recommended routine childhood vaccines, protection of their child and others from disease was the most often noted reason (73%). Six in ten parents (60%) said the decision was based on the advice of a doctor and half (51%) said that the benefits outweigh the risks. About one in three (31%) said that it was a requirement for school or daycare, while 20% said they feared they might regret it later. Fewer said this was because they knew someone who got a vaccine-preventable disease (12%), or they were following the advice of a friend or family member (11%).

Chart 5: Reasons for Immunizing Child



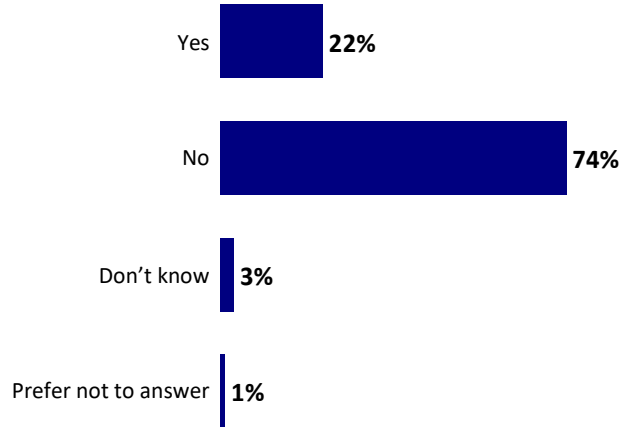
C7. Why did your child receive one or more recommended childhood immunizations? Please exclude COVID-19 vaccines. Was it: (multiple responses)

Base: all respondents, excluding those saying “none”, “don’t know prefer not to say regarding receipt of some or all of recommended vaccines, n=210. Note: responses shown for 4% or higher (n=9 or more)

Vaccine Hesitancy

Just over one in five (22%) of parents said that they are or have been hesitant in the past about their child receiving one or more of the recommended childhood routine vaccines.

Chart 6: Vaccine Hesitancy of Parent

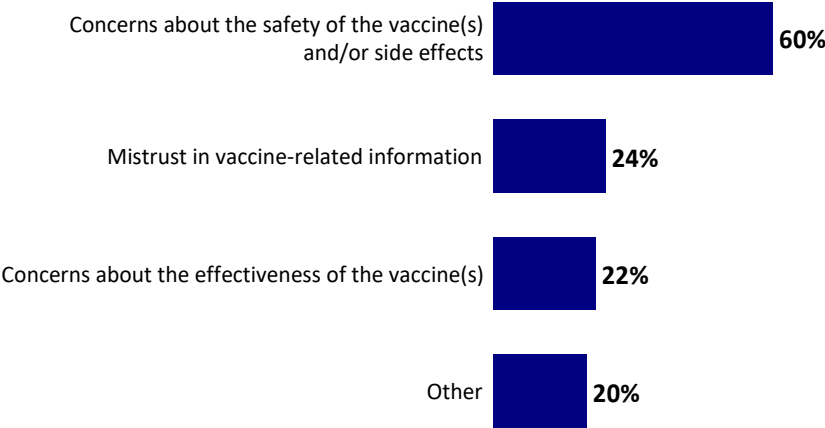


C9A. Are you or have you been hesitant to vaccinate with one or more recommended childhood immunizations? Please exclude COVID-19 vaccines.

Base: All respondents, n=231

Among the 22% of parents indicating some hesitancy to get their child vaccinated with recommended childhood vaccines, six in ten (60%) said this is because they have concerns about the safety or side effects of one or more of the vaccines. One in four said it was because of mistrust in vaccine-related information (24%) or have concerns about the effectiveness of one or more of the vaccines (22%). Fewer cited a bad experience with a health care provider (6%).

Chart 7: Reasons for Vaccine Hesitancy

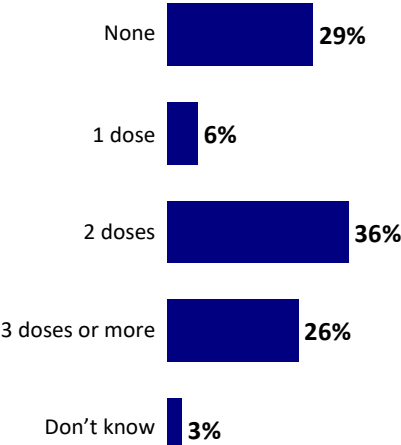


C10. For what reasons were/are you hesitant and/or decided not to get your child immunized for one or more recommended childhood immunizations? Please exclude COVID-19 vaccines. (multiple responses)
Base: Parents indicating they are or have been hesitant about one or more of the recommended vaccines, n=50. Note: responses shown for 20% or higher (n=10 or more)

COVID-19 Vaccination

Two in three parents (67%) indicated their child has received at least one dose of a COVID-19 vaccine. Six percent of parents received one dose, 36% received two doses, and 26% received three or more doses. A reported 29% of parents said their child did not receive any doses of a COVID-19 vaccine.

Chart 8: Doses of COVID-19 Vaccines Received by Child



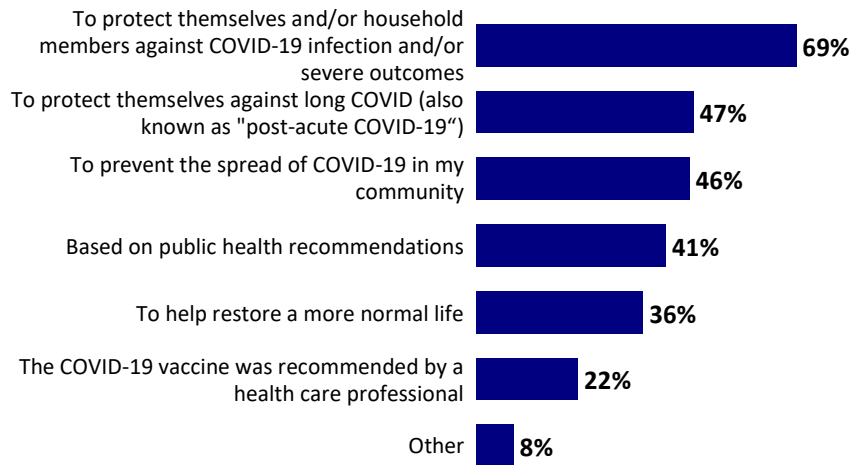
C3. How many doses of the Health Canada approved COVID-19 vaccines has your child received?

Base: Parents of child 6 months or older, n=217

Reasons for COVID-19 Immunization

The primary reason that parents had their child vaccinated with the COVID-19 vaccine is to protect themselves and/or household members against COVID-19 infection and/or severe outcomes (69%). Just under half said it was to protect themselves against long COVID (47%), to prevent the spread of COVID-19 in their community (46%), or because of public health recommendations (41%). Slightly fewer indicated it was to help restore a more normal life (36%). Over one in three said their decision was because the COVID-19 vaccine was recommended by a health care professional (22%).

Chart 9: Reasons for Providing COVID-19 Vaccine to Child



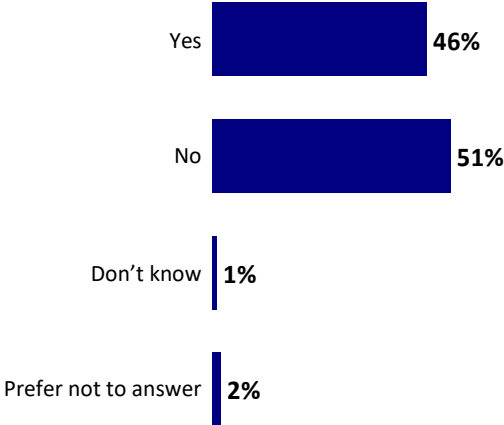
C8. Why did your child receive a COVID-19 vaccine? (multiple responses)

Base: Parents of child receiving one or more doses of COVID-19 vaccine, n=146

COVID-19 Vaccine Hesitancy

Close to half of parents (46%) are or have been hesitant to vaccinate their child against COVID-19, although 51% said they are not, nor have they been hesitant.

Chart 10: COVID-19 Vaccine Hesitancy of Parent

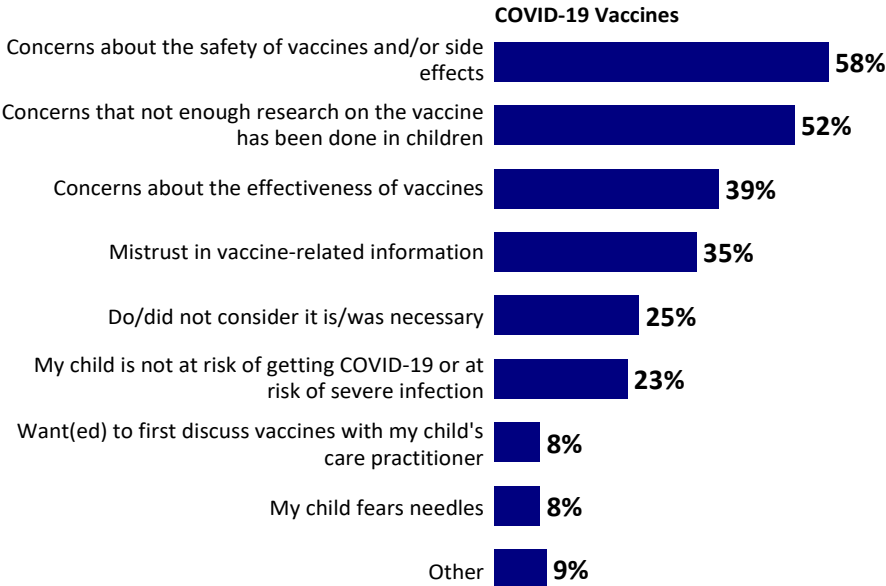


C9B. Are you or have you been hesitant to vaccinate your child against COVID-19?

Base: Parents of child six months of age or older, n=228

Among parents who are or were hesitant to vaccinate their child against COVID-19, nearly six in ten (58%) expressed concern about the safety of COVID-19 vaccines and/or the side effects and 52% said this was because of concerns that not enough research has been done in children. Four in ten (39%) cited concerns about the effectiveness of the COVID-19 vaccines and one in three (35%) expressed mistrust COVID-19 vaccine-related information. One in four felt that the COVID-19 vaccine was not necessary for their child (25%), or believed their child is not at risk of getting COVID-19 or at risk of severe infection (23%). Fewer wanted to first discuss COVID-19 vaccines with their child’s health care practitioner or indicated a child’s fear of needles (8% each).

Chart 11: Parents’ Reasons for COVID-19 Vaccine Hesitancy



C11. For what reasons were/are you hesitant and/or decided not to get a COVID-19 vaccine for your child? (multiple responses)

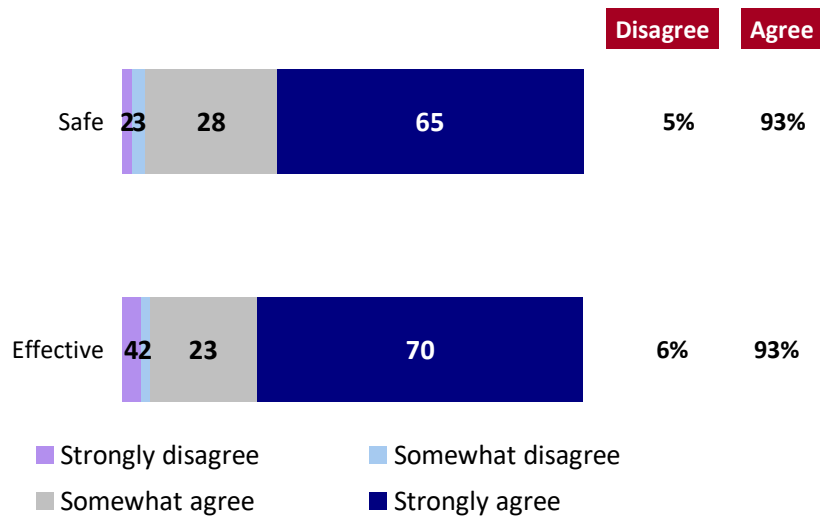
Base: Parents of child 6 months of age or older and parent is not hesitant to vaccinate against COVID-19, n=106. Note: Responses shown for 8% or higher (n=8 or more)

C. VIEWS ABOUT VACCINATION

Changes in Views about Safety and Effectiveness of Vaccines due to COVID-19 Pandemic

Prior to the COVID-19 pandemic, 93% of urban Indigenous parents believed that vaccines were safe and effective for children. Only five percent believed vaccines were unsafe and six percent believed they were not effective.

Chart 12: Parents’ Pre-Pandemic Views about Vaccine Safety and Effectiveness of Vaccines



D2B. Before the COVID-19 pandemic, I believed that vaccines were safe for children

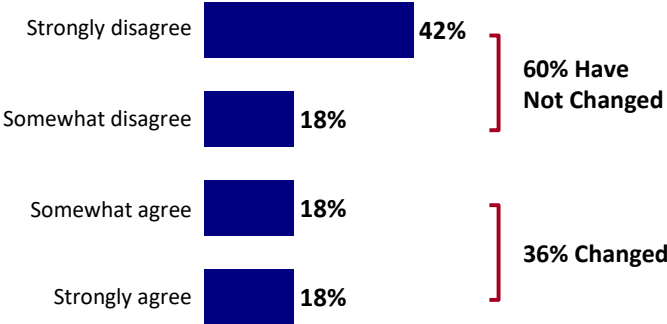
Base: All respondents, n=231

D2C. Before the COVID-19 pandemic, I believed that vaccines were effective for children

Base: All respondents, n=231

Just over one in three parents (36%) indicated that their views about vaccines have changed since the COVID-19 pandemic (18% strongly agreed with this statement), although six in ten parents reported that their views about vaccines have not changed (60%; 42% strongly disagreed).

Chart 13: Proportion of Parents with Changing Vaccine Views Since COVID-19



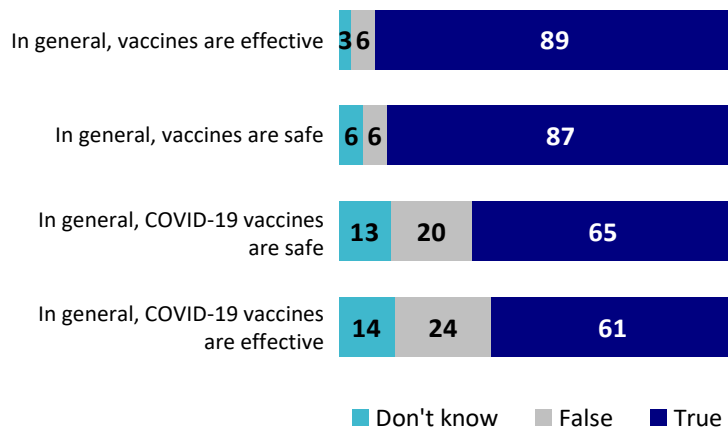
D2A. In general, my views about vaccines have changed since the COVID-19 pandemic.

Base: All respondents, n=231

Current Views about Safety and Effectiveness of Vaccines

Unlike views about COVID-19 vaccines, parents do not seem to have changed their views about vaccines in general; 89% said it is true that vaccines are effective and 87% said vaccines are safe. The COVID-19 vaccines, however, are only considered to be safe among 65% of parents, with 20% believing them to be unsafe and another 13% saying they are unsure. Only six in ten (61%) parents believe the COVID-19 vaccines to be effective, while 24% do not believe them to be effective and 14% are unsure.

Chart 14: Parents' Current Views about Vaccine Safety and Effectiveness



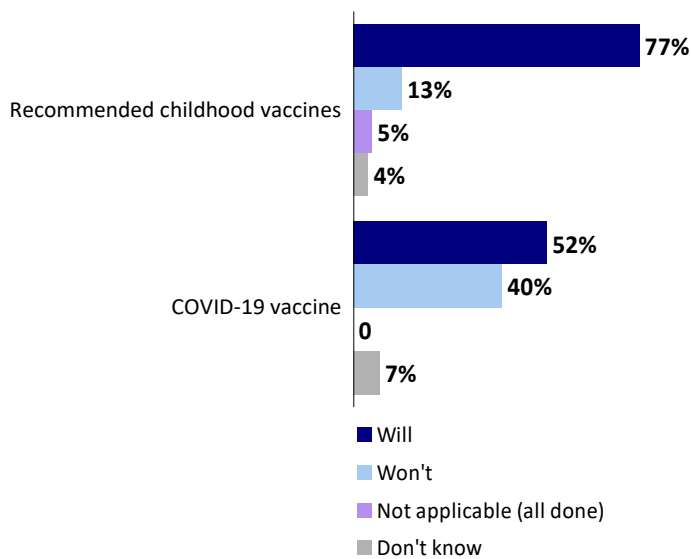
D4a-d. To the best of your knowledge, please rate whether the following statements about childhood immunizations are true or false.

Base: All respondents, n=231

Intent to Vaccinate in Future

Excluding the COVID-19 vaccines, 77% of parents said they intend to have their child vaccinated with the recommended routine childhood vaccines in the future. Thirteen percent said they will not do so and 5% said that it is not applicable because their child has already received all recommended childhood vaccines. Regarding COVID-19 vaccines, only 52% of parents with a child 6 months of age or older say they will vaccinate their child in the future. Four in ten (40%) said they will not and 7% are unsure.

Chart 15: Intent to Vaccinate Child in Future



D1A. Excluding the COVID-19 vaccines, how likely it is that you will get your child vaccinated with the recommended childhood vaccines in the future?

Base: All respondents, n=231

D1B. How likely it is that you will get your child vaccinated with a COVID-19 vaccine in the future?

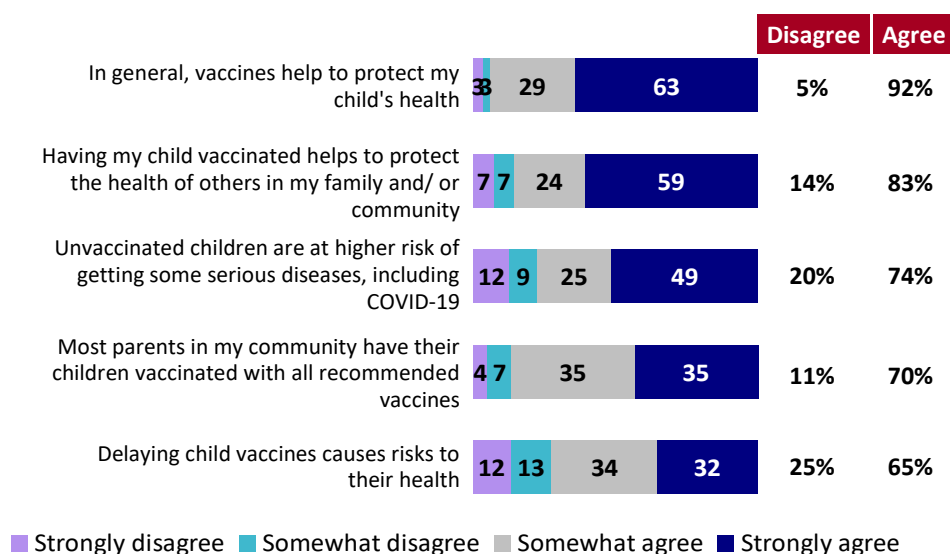
Base: Parents of a child 6 months of age or older, n=228

Views About Vaccines

Parents were asked to react to a number of statements about childhood immunizations. In terms of reactions to five of the 10 statements posed, 92% of parents agree that vaccines help protect their child’s health and only 5% disagree. Eight in ten parents (83%) agree that having their child vaccinated protects others in the family and community, although 14% disagree. Close to three in four (74%) parents also agree that unvaccinated children are at higher risk of getting some serious diseases, including COVID-19, although 20% agree.

Almost two in three (65%) parents agree that delaying childhood vaccines causes risks to their child’s health, although 25% disagree. Seven in ten (70%) parents believe that most parents in their community have their child vaccinated, although 11% disagree.

Chart 16: Parents’ Views About Vaccines

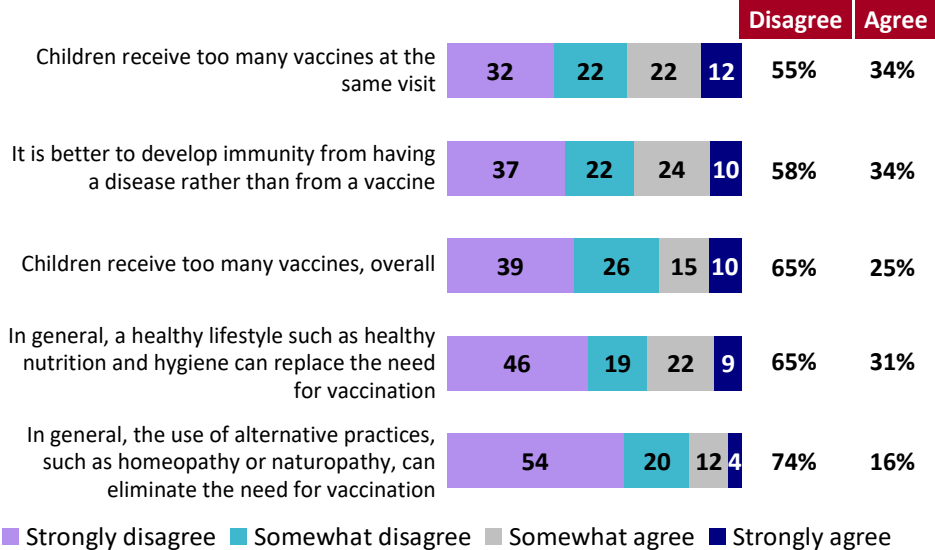


D5-a,e,f,j,k. To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations.

Base: All respondents, n=231

With regard to the other five statements posed about childhood immunizations, 74% of parents disagree that the use of alternative practices such as homeopathy or naturopathy can eliminate the need for vaccination, although 16% agree. Two in three (65%) also disagree that a healthy lifestyle can replace the need for vaccination, although 31% agree. The same proportion (65%) also disagree that children receive too many vaccinations overall, although 25% agree with this view. Just over half (58%) of parents disagree with the view that it is better to develop immunity from having a disease rather than from a vaccine; however, one in three (34%) agree. The same proportion of parents agrees that children receive too many vaccines at the same visit (34%), even though 55% disagree.

Chart 17: Parents’ Views about Vaccines (II)



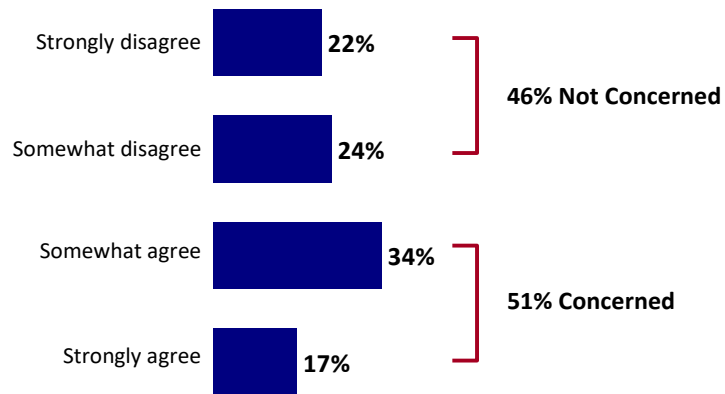
D5-c,d,g,h,i. To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations.

Base: All respondents, n=231

Concern About Side Effects of Vaccines

There is a split among parents regarding concerns for potential side effects from vaccines. While just under half (46%) of parents said that they are not concerned (22% strongly disagree with the statement), 51% of parents said they are concerned (17% strongly agree).

Chart 18: Parent Concern about Side Effects of Vaccines



D5B. In general, I am concerned about the potential side effects from vaccines

Base: All respondents, n=231

Sources of Information

Most parents said they would be most likely to consult health care providers (78%) for information about childhood immunization, followed by the Public Health Agency of Canada or Health Canada (60%), or their local public health unit or clinic (58%). About half would refer to scientific publications and journals (53%), the Ministry of Health within their province or territory (50%), or community nursing stations or clinics (46%). More than one in three would consult with international organizations (39%), the National Advisory Committee on Immunization (NACI) (38%) or Indigenous organizations or Friendship Centres (34%). One in four would consult with family and friends (26%) or news or media (23%), while fewer would turn to social media (12%) for information on childhood immunization.

Table 2: Source of Information Likely to be Consulted

<i>Which of the following sources of information would you be most likely to consult in order to find information about childhood immunization? (multiple responses)</i>	<i>n=231</i>
Health care providers	78%
Public Health Agency of Canada or Health Canada	60%
My local public health unit/clinic	58%
Scientific publications, journals	53%
Ministry of Health within my province or territory	50%
Community nursing stations or clinics	46%
International organizations	39%
National Advisory Committee on Immunization (NACI)	38%
Indigenous organizations or Friendship Centres	34%
Family/friends	26%
News/media	23%
Social media	12%

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

Recommended Vaccines

Just over one in five (22%) urban Indigenous parents said they are or have been hesitant about at least one of the recommended routine childhood vaccines for their child (excluding COVID-19 vaccines). Reasons include concerns for side effects (60%), a mistrust of the available vaccine-related information or not knowing where to get reliable info (24%), and a lack of faith in the effectiveness of vaccines (22%).

Just over three in four parents said that they will obtain recommended vaccines (excluding COVID-19 vaccines) for their child in the future, however, 13% will not and another 5% are unsure or did not provide a response.

Only 58% of urban Indigenous parents said that their child has received all of the recommended vaccines. Close to four in ten (38%) reported that their child has received only “some” but not “all” recommended childhood vaccines for their age. The vaccines most often not received are influenza (offered annually), Hepatitis, and HPV.

- More than one in three parents reported one or more obstacles to obtaining recommended childhood vaccines. Among parents reporting obstacles, a child’s fear of needles and difficulty finding time were noted most often (8%).
- The most often noted reasons for the child not receiving one or more recommended routine childhood vaccines are that they are not “all” necessary (27%) and concerns about the risk of side effects of vaccines (20%).
- Parents’ most often noted motivations for providing “all” recommended vaccines to their child include the protection of the child (73%), advice from a health care professional(s) (60%) and that the benefits outweigh the risks (51%).

COVID-19 vaccine

A much higher proportion of parents (46%) are or have been hesitant about the COVID-19 vaccine compared with the extent of hesitance about routine childhood recommended vaccines (22%). Across all parents, 17% are or have been hesitant about both the recommended vaccines and the COVID-19 vaccine. Eight percent are or have been hesitant about recommended vaccines, but not the COVID-19 vaccine. One in four parents (27%), however, are or have been hesitant about the COVID-19 vaccine, even though they are not or have not been hesitant about recommended vaccines. Fewer than half of parents (46%) are not or have not been hesitant about recommended or COVID-19 vaccines.

- The most often cited reasons for hesitance about the COVID-19 vaccine for their child are concern regarding safety and possible side effects (58%), insufficient research (52%), and concerns about the effectiveness of the vaccine (39%;). A further 35% mistrust vaccine-related information.

Three in ten parents reported that their child did not receive any doses of the COVID-19 vaccine. More than eight in 10 children 12 to 17 years of age received at least one dose.

- Most commonly cited reasons for COVID-19 vaccination are the protection of the child (69%), or family or community against COVID-19 infection and/or severe outcomes (47%), to protect themselves against long COVID (46%).

Only half (52%) of parents said that they will obtain (further) COVID-19 vaccines for their child in the future.

Views about Vaccines

Three in ten parents have changed their view about vaccines since the pandemic, although there is little difference reported in the current versus pre-pandemic views about the safety and effectiveness of recommended vaccines. There is considerably greater concern expressed about the safety and effectiveness of the COVID-19 vaccine than there is about recommended vaccines, with only 65% saying that the COVID-19 vaccines are safe and 61% saying they are effective (compared with 87% and 89% saying the same about recommended childhood vaccines).

The most prevalent arguments for vaccinating children, agreed upon by most parents, is the need to protect the health of the child (92%), to help protect others (83%), and to mitigate the risk of more serious illness (74%).

There is a sizable proportion of parents who are concerned about the potential for side effects from vaccines (51%).

Considerable proportions of parents have reported agreeing that there are too many vaccines in a single visit (34%), there are too many vaccines in general (25%) and that it is better to develop immunity from getting a disease (34%).

Preferred Sources of Information

The most preferred sources for information about vaccines for urban Indigenous parents are the health care providers (78%). This is followed by Health Canada/PHAC (60%, although only 36% of hesitant parents) and local health units (58%), scientific journals (53%) and provincial/territorial ministries of health (50%). Therefore, health care providers and scientific journals may be a good way to reach vaccine hesitant parents with the urban Indigenous population¹¹.

¹¹ This result is based on 33 responses and not statistically significant in its difference from non-hesitant parents.

B. CONCLUSIONS

Although more than one in five parents reported hesitance to vaccinate their child with recommended routine childhood vaccines, fewer said they would not obtain recommended vaccines in the future (13%), but significantly higher numbers of parents reported that their child had not been vaccinated with “all” recommended vaccines in the past.

Views regarding the COVID-19 vaccine are much more cautious than they are for recommended childhood vaccines. Reasons for hesitance against COVID-19 vaccines suggest that the newness of the vaccines, the speed at which it was developed and researched, as well as the mandatory nature of its roll out and messaging were obstacles to acceptance for some parents, magnifying their existing concerns about the risk of side effects of vaccines.

The impact of the COVID-19 vaccine seems to be mostly contained to this vaccine itself and has not had a sizable impact on views and intent regarding recommended routine childhood vaccines, which still remain positive with regard to safety and effectiveness, although some still consider “some” recommended vaccines to be “less necessary” than others.

C. LIMITATIONS OF THE RESEARCH

The sample size for the survey serves as a limitation to the level of precision and ability to detect differences between sub-groups (e.g., based on age of the selected child). Given the low incidence of the population defined in the study, consideration could be given to broadening the population of Indigenous parents or decision-makers for children 17 years of age or younger to capture a larger proportion of the Indigenous population. A considerably larger panel may also be required.

There was a lower-than-expected proportion of Indigenous parents captured the sample who have high school or less than high school completion in terms of education and also a lower proportion with lower household incomes, either because of a lower proportion found in the panel used or a lower propensity to respond among this segment.

APPENDICES

A. METHODOLOGICAL DETAILS

The summary section of this report (Sub-heading B – Methodology) described the *Probit* panel which was the primary source used for the sample¹². The survey is comprised of 231 completed cases of Canadians, who identify as Indigenous, living in an urban community with 1,000 or more residents¹³, are 18 years of age or older and a parent, guardian or person with decision-making authority for someone 17 years of age or younger.

As outlined in the Executive Summary, the survey was collected between March 30 and June 1, 2023, with a questionnaire length averaging 14 minutes online and 22 minutes by telephone. Respondents were informed in the invitation that all responses are completely confidential and no responses will be linked to personal information. This randomly recruited probability sample carries with it a margin of error of +/-6.5% at a 95% confidence interval. The margin of error for each of the target groups is between 8% and 14%¹⁴.

As shown in Table 3, the average response rate overall across the 231 cases is 24%. It is 19.4% among *Probit* sample members who completed the survey online. A total of 20,496 records were sampled to receive an email invitation to the survey, of which 91 were undeliverable, leaving a valid sample of 20,405. Of these records, 120 were completed and 3,843 were found to be out of scope (i.e., ineligible). These two combined (3,963) are divided by the valid sample of 20,405 to obtain the 19.4% response rate.

Equal proportions of the sample were collected through online self-administration (n=120) and by trained, bilingual interviewers (n=111). The response rate is 14.4% across cases completed by telephone based on 111 completed and 865 found to be out of scope, out of the valid 6,768

¹² 24 of the 231 cases were completed by telephone using a RDD sample source, with pre-screening based on study criteria, using an interactive voice response (IVR) automated dialling system.

¹³ 14 of the 110 First Nations parents live in a rural community with fewer than 1,000 residents, although none live on a reserve.

¹⁴ The margin of error is between 8% and 16% in 19 of the 22 segments, however, it is +/-16% among parents of children who are between six months and under 5 years of age, and those living in Quebec or the Atlantic. It is +/-19% among Inuit parents.

records. Following are the outcomes for each of the online and telephone methods of administration.

Table 3: Response Rates

Outcome	Online	Phone	Total
Total	20,496	11,167	31,663
Invalid	91	4,399	4,490
Valid Sample	20,405	6,768	27,173
Non-responding	16,343	4,509	20,852
Refusal	92	1,269	1,361
Partial complete	7	14	21
Total non-response	16,442	5,792	22,234
Ineligible/quota filled	3,843	865	4,708 ¹⁵
Complete	120	111	231
Response rate	19.4%	14.4%	18.2%

The database was reviewed following data collection for data quality, outliers, coding requirements, construction of independent variables, and was used to explore sub-group patterns (e.g., by age and sex of the selected child, education and region of the parent, parent Indigenous identity as well as key vaccine-related indicators provided by parents) in the analysis. Review and cleaning of the data involved a review of the branching logic, deleting any extraneous responses from respondents backtracking through the survey to correct their answers¹⁶. A second step involved variable creation to merge responses from several questions. These included two versions of question 11 into a single harmonized set of responses; merging multiple variable related to age of the selected child to create a single age variable; removing programming language from the question and response category labels; recoding responses as needed to create combined or collapsed categories of responses (e.g., several points on a scale); and creating a regional variable based on the first three digits of the postal code reported by parents¹⁷.

¹⁵ This includes 3,558 who did not classify themselves as Indigenous, 15 First Nations people lived on a reserve, 11 Métis or Inuit people living in rural communities of less than 1,000 people, and 259 who did not have children 17 years of age or younger or refused to respond regarding the number and age of children.

¹⁶ This occurred among only five respondents in the sample.

¹⁷ In 3% of cases, where no postal code information was provided, panel administration information was used to categorize respondents by region in the analysis.

Table 4 provides the distributions of the sample.

Table 4: Sample Characteristics – Parent, Household, and Selected Child

PARENT CHARACTERISTICS	Total
<i>Identity</i>	<i>n=231</i>
First Nations (includes status and non-status individuals)	48%
Métis	45%
Inuit	11%
<i>Age</i>	<i>n=231</i>
18 to 24	1%
25 to 29	3%
30 to 34	6%
35 to 44	41%
45 to 54	35%
55 to 64	10%
65+	5%
<i>Sex at Birth</i>	<i>n=231</i>
Male	50%
Female	48%
<i>Gender</i>	<i>n=231</i>
Woman	45%
Man	48%
Another gender	3%
<i>Sexual Orientation</i>	<i>n=231</i>
Heterosexual ("straight")	88%
Other	6%
I prefer not to answer	6%
<i>Education</i>	<i>n=231</i>
Above high school diploma or equivalent	9%
Registered apprenticeship or other trade certificate or diploma	8%
College/CEGEP or other non-university certificate or diploma	29%
University certificate or diploma below bachelor's level	5%
University - bachelor's degree or equivalent	21%

PARENT CHARACTERISTICS	Total
University - post-graduate degree above bachelor's level or equivalent	18%

HOUSEHOLD CHARACTERISTICS	Total
<i>Number of Children under 18 years of age</i>	<i>n=231</i>
1	44%
2	36%
3	10%
4 or more	10%
<i>Children's Ages</i>	<i>n=231</i>
Under 6 months	1%
6 months to less than 2 and a half years	8%
2 and a half years to less than 5 years	9%
5 years to less than 12 years	38%
12 years to 17 years	45%
<i>Live in Household (primary or secondary residence)</i>	<i>n=231</i>
Yes	94%
No	6%
<i>Relationship to Child</i>	<i>n=231</i>
Birth parent	82%
Other relationships	18%
<i>Household Income</i>	<i>n=231</i>
Less than \$60,000	21%
\$60,000 or more	72%
Under \$20,000	6%
\$20,000 to just under \$40,000	8%
\$40,000 to just under \$60,000	6%
\$60,000 to just under \$80,000	13%
\$80,000 to just under \$100,000	10%
\$100,000 to just under \$150,000	24%
\$150,000 and above	25%
I prefer not to answer	5%

HOUSEHOLD CHARACTERISTICS	Total
<i>Has Selected Child ever been vaccinated</i>	<i>n=231</i>
Yes	93%
No	6%
<i>Living in community with a population of fewer than 1,000 people</i>	<i>n=231</i>
Yes	6%
No	93%

CHARACTERISTICS OF SELECTED CHILD	Total
<i>Age of Selected Child</i>	<i>n=231</i>
Under 6 months	1%
6 months to less than 2 and a half years old	6%
2 and a half years to less than 5 years old	9%
5 years to less than 12 years old	37%
12 years to 17 years old	47%
<i>Sex at Birth</i>	<i>n=231</i>
Male	52%
Female	47%
<i>Racial or ethnic community</i>	<i>n=231</i>
Indigenous	80%
White	55%
East/Southeast Asian	6%
Black	4%
South Asian	3%
Latino/Latina	3%
Middle Eastern and North African	2%
Other	3%

In terms of non-response bias, it is impossible to assess the presence of non-response bias since information about why non-responders did not participate is usually unavailable, and no population figures exist for this precise population under study. It appears, however, based on Indigenous population data, that the reported education and income of sample members are somewhat high.

B. BANNER TABLES

Two banners were created for the purposes of sub-group analysis. The first features results for the complete set of parents responding to a question, along with comparisons of results for:

- three groups of parents based on the age of the randomly selected child (under five years of age; between 5 and 11 years of age and 12 year of age or older);
- two groups of parents based on the sex at birth of the randomly selected child;
- five groups of parents based on region of the household (British Columbia and territories; Alberta; Saskatchewan and Manitoba; Ontario; Quebec and the four Atlantic provinces);
- three groups of parents based on parental Indigenous identity (First Nations; Métis; and Inuit, although there are only 26 Inuit parents in the sample)
- two groups of parents based on their highest level of education (less than a Bachelor's degree; and Bachelor's degree or higher).

The second banner features results for the complete set of parents responding to a question, along with comparisons of results for:

- two groups of parents based on parents' report that some or all recommended vaccines were received by the selected child;
- two groups of parents based on parents' report of any obstacles that prevented all recommended vaccines from being received (parents reporting no obstacles and parents reporting at least one obstacle);
- two groups of parents based on parents' reported current or past hesitance to vaccinate the selected child with recommended vaccines;
- two groups of parents based on parents' reported current or past hesitance to vaccinate the selected child with COVID-19 vaccines;
- two groups of parents based on parents' report that the selected child received at least one dose of a COVID-19 vaccine or no doses of a COVID-19 vaccine.

In each of these sets of comparisons, parents indicating "Don't know" or "Prefer not to answer" are excluded from the comparison (i.e., not included in any of the sub-sets of parents), although results for these parents are included in the total for the question. All numbers of respondents as well as percentages are presented unweighted, rounded to the nearest whole number (i.e., .4 or lower was rounded down and .5 or higher was rounded up to the nearest whole number in the results displayed in the banner tables and presented in the report. Results were suppressed where sub-groups included fewer than 10 respondents, indicated with "X". In questions allowing for multiple responses, "Don't know" and "Prefer not to answer" were only allowable if no other responses were selected. All categories of responses indicated in CAPS were added as a result of post-collection coding; these response options were not present in

lists at the time of collection. Segments are tested against the pool of other segments shown in the specific table. Statistical testing used is Chi². Statistically significant cells are also noted with plus signs (significantly higher) and minuses (significantly lower) at the level of .05 or higher. Caution should be used in interpreting results based on fewer than 30 respondents given reduced precision of estimates.

C. SURVEY QUESTIONNAIRE

WINTRO

Si vous préférez répondre au sondage en français, veuillez cliquer sur français.

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.

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 help to 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 age, gender, sexual orientation and ethnicity in order to better understand knowledge, attitudes, and experiences across different key populations. You will also be asked about the first three characters of your postal code to help determine your geographic area for sampling purposes. Your home address cannot be identified through this information. 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. 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. 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, EKOS Research Associates Inc., will be responsible for collecting survey data from all participants. Once data collection is complete, EKOS Research Associates Inc. 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: online@ekos.com

For technical support with the survey, accessibility requirements, or to request to complete the survey over the phone you can contact: online@ekos.com or 1-800-388-3873.

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: 20230324-EK513.

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

PINTRO

Good morning/afternoon/evening, Bonjour, May I speak with _____?

My name is _____ and I am calling from EKOS Research Associates, a public opinion research company. We have been hired by the Public Health Agency of Canada to conduct a survey focused on knowledge, attitudes and experiences about childhood immunization for key populations.

Your participation is voluntary and your responses will be kept entirely confidential and anonymous. This survey is being conducted by EKOS Research, and is being administered according to the requirements of the Privacy Act.

Would you be willing to complete a few questions to see if you fit the profile of people we are looking for?

IF ASKED LENGTH: The survey will take about 15 minutes to complete

IF ASKED: The survey is registered with the Research Verification Services operated by the Canadian Research Insights Council (CRIC). Visit <https://canadianresearchinsightscouncil.ca/rvs/home/?lang=en> if you wish to verify its authenticity (project code 20230324-EK513).

Study notes:

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 help to 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 age, gender, sexual orientation and ethnicity in order to better understand knowledge, attitudes, and experiences across different key populations. You will also be asked about the first three characters of your postal code to help determine your geographic area for sampling purposes. Your home address cannot be identified through this information. 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. 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. 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, EKOS Research Associates Inc., will be responsible for collecting survey data from all participants. Once data collection is complete, EKOS Research Associates Inc. 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.)

Yes 1
No, or prefer to complete it online 2

PINTRORF

This interview is also being offered as an online survey that you can complete at your own pace. Are you interested in receiving an email with the survey link and participating online instead?

EMAIL is not empty
Yes, to email address EMAIL 3
<[EMAIL is not empty]Yes, to another email address[ELSE]Yes> (please provide email) : 1
Refused (THANK AND TERMINATE) 2
No (Schedule appointment to call back) 4
Complete / continue by phone 5

PINTRORFB

Thanks. You should expect an email from online@ekos.com in the next few minutes.

Continue (Return to Introduction) 1

PRIV

This call may be recorded for quality control or training purposes.

S10

Do you identify as First Nations, Métis and/or Inuit?

Yes 1
No <[PHONE](thank and terminate)> 2
I prefer not to answer <[PHONE](thank and terminate)> 99

S10A [1,3]

Do you identify as First Nations, Métis and/or Inuit?

Please select all that apply.

First Nations (includes status and non-status individuals)	1
Métis	2
Inuit	3
I prefer not to answer <[PHONE](thank and terminate)>	99

S10B

Is your primary residence on reserve?

Yes <[PHONE](thank and terminate)>	1
No	2
I don't know <[PHONE](thank and terminate)>	98
I prefer not to answer <[PHONE](thank and terminate)>	99

S2

Are you a parent or legal guardian or person responsible (In order to better determine whether you are eligible for this survey, we would like to ask you some questions about your general background. We acknowledge that some of these questions may result in uncomfortable feelings.) for health decisions for a child **under the age of 18**? (This might include a step-parent, adoptive parent, foster parent, sister or brother, grandparent or other relative caring for a child(ren) under the age of 18.)

Yes	1
No <[PHONE](thank and terminate)>	2
I prefer not to answer <[PHONE](thank and terminate)>	99

S1

How old are you?

Please specify:	77
I prefer not to answer	99

S1A

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

Under 18 <[PHONE](thank and terminate)>	1
18 to 24	2
25 to 29	3
30 to 34	4
35 to 44	5
45 to 54	6
55 to 64	7
65 or older	8
I prefer not to answer	99

S1AA

Are you at least 18 years of age?

Yes	1
No <[PHONE](thank and terminate)>	2
I prefer not to answer <[PHONE](thank and terminate)>	99

S4A

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

<[PHONE](IF NEEDED :)> Note that we cannot identify your address from this information since the first three digits of your postal code are not residence-specific.

Please specify :	77
I prefer not to answer	99
I don't know	98

CALCS4AB

Calculation, middle character S4A

Rural	1
Urban	99

S9

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

Yes	1
No	2
I don't know	98
I prefer not to answer	99

B3

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

<[PHONE]INTERVIEWER: Read list.>

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5
I don't know	98
I prefer not to answer	99

B4

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

<[PHONE]INTERVIEWER: Read list.>

Excellent	1
Very good	2

Good	3
Fair	4
Poor	5
I don't know	98
I prefer not to answer	99

S3

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

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

None <[PHONE](thank and terminate)>	98
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10 or more	10
I prefer not to answer	99

S3B

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.

Are you sure you don't want to give this information?

Yes, I'm sure <[PHONE](thank and terminate)>	1
No, I will answer	2

B2 [0,1]

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

How old is each child, **starting with the oldest child**?

Age range

B2BOXA [0,1]

1st child

Please specify	98
Under 6 months	1
6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5

I prefer not to answer 99

B2BOXB [0,1]

2nd child

Please specify 98
Under 6 months 1
6 months to less than 2 and a half years 2
2 and a half years to less than 5 years 3
5 years to less than 12 years 4
12 years to less than 18 years 5
I prefer not to answer 99

B2BOXC [0,1]

3rd child

Please specify 98
Under 6 months 1
6 months to less than 2 and a half years 2
2 and a half years to less than 5 years 3
5 years to less than 12 years 4
12 years to less than 18 years 5
I prefer not to answer 99

B2BOXD [0,1]

4th child

Please specify 98
Under 6 months 1
6 months to less than 2 and a half years 2
2 and a half years to less than 5 years 3
5 years to less than 12 years 4
12 years to less than 18 years 5
I prefer not to answer 99

B2BOXE [0,1]

5th child

Please specify 98
Under 6 months 1
6 months to less than 2 and a half years 2
2 and a half years to less than 5 years 3
5 years to less than 12 years 4
12 years to less than 18 years 5
I prefer not to answer 99

B2BOXF [0,1]

6th child

Please specify 98
Under 6 months 1

6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5
I prefer not to answer	99

B2BOXG [0,1]

7th child

Please specify	98
Under 6 months	1
6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5
I prefer not to answer	99

B2BOXH [0,1]

8th child

Please specify	98
Under 6 months	1
6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5
I prefer not to answer	99

B2BOXI [0,1]

9th child

Please specify	98
Under 6 months	1
6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5
I prefer not to answer	99

B2BOXJ [0,1]

10th child

Please specify	98
Under 6 months	1
6 months to less than 2 and a half years	2
2 and a half years to less than 5 years	3
5 years to less than 12 years	4
12 years to less than 18 years	5
I prefer not to answer	99

CALCB2C

Calculation, random child selection

under 6 months old	1
6 months to less than 2 and a half years old	2
2 and a half years to less than 5 years old	3
5 years to less than 12 years old	4
12 years to less than 18 years old	5

CALCB2D

Calculation, number of children aged CALCB2C

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

CALCB2E

Calculation, half sample

youngest	1
oldest	2

CHILDI

<[CALCB2D = 1 and S3 = 1]During the survey we would like to ask you about your child.[CALCB2D = 1 and S3 >= 2]During the survey we would like to ask you about your child who is CALCB2C .[CALCB2D >= 2]During the survey we would like to ask you about your child who is CALCB2C . If you have more than one child in this age group please think of the CALCB2E .[ELSE]During the survey we would like to ask you about your CALCB2E child.>

Please provide their first name, nickname or an initial(s) which will be used to refer to this child throughout the survey. This name or initial will not be kept or associated with any of your responses. It will only be used for you as a reference as you are completing this survey.

Please specify: 77

B1

What is your relationship to CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

Birth parent	1
Step-parent	2
Adoptive parent	3
Foster parent	4

Sister or brother	5
Grandparent	6
Other relative	7
Unrelated	8
I prefer not to answer	99

B5

Does CHILDI currently live in your household (primary or secondary residence)?

Yes	1
No	2
I prefer not to answer	99

B2A

What is the exact age of CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

1 month old	1
2 months old	2
3 months old	3
4 months old	4
5 months old	5
I prefer not to answer	99

B2B

What is the exact age of CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

6 months	1
7 months	2
8 months	3
9 months	4
10 months	5
11 months	6
1 year old	7
2 years old	8
I prefer not to answer	99

B2C

What is the exact age of CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

2 years old	1
3 years old	2
4 years old	3
I prefer not to answer	99

B2D

What is the exact age of CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

5 years old	1
6 years old	2
7 years old	3
8 years old	4
9 years old	5
10 years old	6
11 years old	7
I prefer not to answer	99

B2E

What is the exact age of CHILDI ?

<[PHONE]INTERVIEWER: Read list if needed.>

12 years old	1
13 years old	2
14 years old	3
15 years old	4
16 years old	5
17 years old	6
I prefer not to answer	99

C1

<[B1 = 1]The next set of questions are about public health topics relating to children. For these questions, please consider health experiences that apply to CHILDI .[ELSE]The next set of questions are about public health topics relating to children. For these questions, please consider health experiences that apply to CHILDI .>

Has CHILDI **ever** been vaccinated?

Yes	1
No	2
I don't know	98
I prefer not to answer	99

C2

To the best of your knowledge, would you say that CHILDI has received all, some, or none of the recommended vaccines for their age?

<[PHONE]INTERVIEWER: Read list.>

<[CALCB2C = 1]The following immunizations are recommended in Canada for children under 6 months of age:

Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)

Haemophilus influenzae Type b (Hib)

Hepatitis B (Hep B or HB)

Meningococcal (Men, Men-C-C)

Pneumococcal (Pneu-C-13 or Pneu-C-10)

Polio (IPV)

Rotavirus (Rota)

Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)

[CALCB2C = 2]The following immunizations are recommended in Canada for children aged 6 months to less than 2 and a half years:

Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)

Haemophilus influenzae Type b (Hib)

Hepatitis B (Hep B or HB)

Hepatitis A and B (HAHB) (*Only recommended in Quebec)

Meningococcal (Men, Men-C-C)

Pneumococcal (Pneu-C-13 or Pneu-C-10)

Polio (IPV)

Rotavirus (Rota)

Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)

Measles, Mumps, Rubella (MMR)

Measles, Mumps, Rubella, Varicella (MMRV)

Varicella (Var)

Seasonal influenza (flu)

[CALCB2C = 3]The following immunizations are recommended in Canada for children aged 2 and a half years to less than 5 years:

Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)

Haemophilus influenzae Type b (Hib)

Hepatitis B (Hep B or HB)

Hepatitis A and B (HAHB) (*Only recommended in Quebec)

Meningococcal (Men, Men-C-C)

Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)

Polio (IPV)

Rotavirus (Rota)

Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)

Measles, Mumps, Rubella (MMR)

Measles, Mumps, Rubella, Varicella (MMRV)

Varicella (Var)

Seasonal influenza (flu)

[CALCB2C = 4]The following immunizations are recommended in Canada for children aged 5 years to less than 12 years:

Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)

Haemophilus influenzae Type b (Hib)

Hepatitis B (Hep B or HB)

Hepatitis A and B (HAHB) (*Only recommended in Quebec)
 Meningococcal (Men, Men-C-C or Men-C-ACYW-135)
 Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
 Polio (IPV)
 Rotavirus (Rota)
 Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)
 Measles, Mumps, Rubella (MMR)
 Measles, Mumps, Rubella, Varicella (MMRV)
 Varicella (Var)
 Human Papillomavirus (HPV)
 Seasonal influenza (flu)
 [CALCB2C = 5]The following immunizations are recommended in Canada for children aged 12 years to less than 18 years:
 Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)
 Haemophilus influenzae Type b (Hib)
 Hepatitis B (Hep B or HB)
 Hepatitis A and B (HAHB) (*Only recommended in Quebec)
 Meningococcal (Men, Men-C-C or Men-C-ACYW-135)
 Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
 Polio (IPV)
 Rotavirus (Rota)
 Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)
 Measles, Mumps, Rubella (MMR)
 Measles, Mumps, Rubella, Varicella (MMRV)
 Varicella (Var)
 Human Papillomavirus (HPV)
 Seasonal influenza (flu)
 [ELSE]The following immunizations are recommended in Canada for children :
 Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)
 Haemophilus influenzae Type b (Hib)
 Hepatitis B (Hep B or HB)
 Hepatitis A and B (HAHB) (*Only recommended in Quebec)
 Meningococcal (Men, Men-C-C or Men-C-ACYW-135)
 Pneumococcal (Pneu-C-13 or Pneu-C-10 or Pneu-P-23)
 Polio (IPV)
 Rotavirus (Rota)
 Bacille Calmette-Guérin (BCG) (*Only recommended in Northwest Territories and Nunavut)
 Measles, Mumps, Rubella (MMR)
 Measles, Mumps, Rubella, Varicella (MMRV)
 Varicella (Var)

Human Papillomavirus (HPV)

Seasonal influenza (flu)

> <[PHONE](IF NEEDED :)> 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>

All	1
Some	2
None	3
I don't know	98
I prefer not to answer	99

C2A [1,16]

Which of the following recommended vaccines has CHILDI **not** received?

<[PHONE]INTERVIEWER: Read list and accept yes/no for each one> Please select all that apply.

CALCB2C not = 1	
Chickenpox (Varicella or Var)	1
Diphtheria, Tetanus and Pertussis (DTaP, Tdap or Td)	2
Haemophilus influenzae Type b (Hib)	3
Hepatitis B (Hep B or HB)	4
CALCB2C not = 1	
Hepatitis A and B (combined vaccine)	5
CALCB2C not = 1,2,3	
HPV (Human Papillomavirus)	6
CALCB2C not = 1	
Influenza (flu)	7
CALCB2C = 1,2,3	
Meningococcal (Men, Men-C-C)	9
CALCB2C not = 1,2,3	
Meningococcal (Men, Men-C-C or Men-C-ACYW-135)	90
CALCB2C not = 1	
Measles, Mumps, Rubella (MMR)	10
CALCB2C not = 1	
Measles, Mumps, Rubella, Varicella (MMRV)	11
CALCB2C not = 1,2	
Pneumococcal (Pneu-C-13, Pneu-C-10, or Pneu-P-23)	13
CALCB2C = 1,2	
Pneumococcal (Pneu-C-13, Pneu-C-10)	130
Polio (IPV)	14
Rotavirus (Rota)	15
Rubella	16
I don't know	98
I prefer not to answer	99

C4 [1,12]

What obstacles, if any, have made it more difficult to get CHILDI vaccinated with **one or more** of the recommended childhood vaccines?

<[PHONE](Interviewer: Do not read list)> Please select all that apply.

No obstacles.	1
Difficult to book time off work/ school for a vaccine appointment.	2
Live in a remote area (limited transportation).	3
Language barriers (e.g., lack of access to relevant information in my preferred language).	4
Lack of vaccination locations that are welcoming and accessible to Indigenous populations in urban setting.	5
Limited access to Indigenous organizations that offer information or support.	6
Concerns about racism or discrimination towards your child.	7
My child fears needles.	8
At least one parent opposed it.	9
Other, please specify:	77
I don't know	98
I prefer not to answer	99

C5 [1,16]

For what reason(s) has CHILDI **not** been immunized with **one or more** recommended childhood vaccines? Please **exclude** COVID-19 vaccines.

<[PHONE](Interviewer: Do not read list)> Please select all that apply.

I did not know that one or more of these vaccines was important for my child to get	1
I did not consider it necessary for my child	2
Concerns about the risk of side effects of vaccines	3
Not confident in the effectiveness of vaccines	4
Religious or philosophical reasons	5
My child has or had a pre-existing medical condition	6
Other, please specify:	77
I don't know	98
I prefer not to answer	99

C7 [1,10]

Why did CHILDI receive **one or more** recommended childhood immunizations? Please **exclude** COVID-19 vaccines. Was it :

<[PHONE]INTERVIEWER: Read list and accept yes/no for each one> Please select all that apply.

Advice from my doctor or health care professional	1
Advice from a friend or a family member	2
To protect my child, myself or others from disease	3
Benefits are more important than risks	4
I know or knew someone who got a vaccine-preventable disease	5
I fear I may regret it later if I don't	6
Need it for daycare or school entry	7
Other (specify the reason):	77
I don't know	98
I prefer not to answer	99

C9A

Are you or have you been hesitant to vaccinate (Vaccine hesitancy refers to a reluctance or delay in acceptance or refusal of vaccines despite availability.) CHILDI with **one or more** recommended childhood immunizations? Please **exclude** COVID-19 vaccines.

Yes	1
No	2
I don't know	98
I prefer not to answer	99

C10 [0,13]

For what reasons were/are you hesitant and/or decided not to get CHILDI immunized for **one or more** recommended childhood immunizations? Please **exclude** COVID-19 vaccines.

<[PHONE](Interviewer: Do not read list)> Please select all that apply.

My child is not at risk for infection.	1
I wanted to discuss the vaccine(s) with my child's health care practitioner.	2
Concerns about the effectiveness of the vaccine(s).	3
Concerns about the safety of the vaccine(s) and/or side effects.	4
My child had a bad experience with previous vaccines.	5
Do/did not know where to get reliable information.	6
Religions or philosophical reasons.	7
My child had a bad experience with health care providers.	8
Concerns about racism or discrimination.	9
Mistrust in vaccine-related information.	10
Other (specify the reason):	77
I don't know	98
I prefer not to answer	99

C3

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

How many doses of the Health Canada approved COVID-19 vaccines (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.) has CHILDI received?

None	1
1 dose	2
2 doses	3
3 doses or more	4
I don't know	98
I prefer not to answer	99

C8 [1,9]

Why did CHILDI receive a COVID-19 vaccine?

<[PHONE](Interviewer: Do not read list)> Please select all that apply.

To protect themselves and/or household members against COVID-19 infection and/or severe outcomes (e.g., hospitalization)	1
To protect themselves against long COVID (also known as "post-acute COVID-19"; refers to either lingering or new physical and mental health symptoms experienced 4 or more weeks after COVID-19 infections)	2
Based on public health recommendations	3
To prevent the spread of COVID-19 in my community	4
The COVID-19 vaccine was recommended by a health care professional	5
To help restore a more normal life (e.g., to lift public health measures, participate in extra-curricular activities, travel)	6
Other, please specify:	77
I don't know	98
I prefer not to answer	99

C9B

Are you or have you been hesitant to vaccinate (Vaccine hesitancy refers to a reluctance or delay in acceptance or refusal of vaccines despite availability.) CHILDI against **COVID-19**?

Yes	1
No	2
I don't know	98
I prefer not to answer	99

C11 [1,15]

For what reasons were/are you hesitant and/or decided not to get a COVID-19 vaccine for CHILDI?

<[PHONE](Interviewer: Do not read list)> Please select all that apply.

My child fears needles.	1
My child is not at risk of getting COVID-19 or at risk of severe infection.	2
Do/did not consider it is/was necessary.	3
I want(ed) to first discuss COVID-19 vaccines with my child's health care practitioner.	4
Concerns that not enough research on the vaccine has been done in children.	5
Concerns about the effectiveness of COVID-19 vaccines.	6
Concerns about the safety of COVID-19 vaccines and/or side effects.	7
My child had a bad experience with previous vaccinations.	8
Religious or philosophical reasons.	9
My child had a bad experience with health care providers.	10
Concerns about racism or discrimination.	11
Mistrust in COVID-19 vaccine-related information.	12
Other, please specify:	77
I don't know	98
I prefer not to answer	99

D1A

We are interested in understanding how the COVID-19 pandemic has influenced your perspective on recommended childhood vaccines.

Excluding the COVID-19 vaccines, how likely it is that you will get CHILDI vaccinated with the recommended childhood vaccines **in the future**?

<[PHONE]INTERVIEWER: Read list.>

Definitely will	1
Probably will	2
Probably won't	3
Definitely won't	4
I don't know	98
I prefer not to answer	99
CALCB2C = 5	
Not applicable, my child has received all recommended childhood vaccines	97

D1B

How likely it is that you will get CHILDI vaccinated with a COVID-19 vaccine (Currently, 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 in Canada.) **in the future**?

<[PHONE]INTERVIEWER: Read list.>

Definitely will	1
Probably will	2
Probably won't	3
Definitely won't	4
I don't know	98
I prefer not to answer	99

D1C

How likely it is that you will get CHILDI vaccinated with a COVID-19 vaccine **in the future** if it becomes available?

<[PHONE]INTERVIEWER: Read list.>

Definitely will	1
Probably will	2
Probably won't	3
Definitely won't	4
I don't know	98
I prefer not to answer	99

D2A

Please rate your level of agreement with the statements below: <[PHONE](INTERVIEWER: Read list.)>

In general, my views about vaccines have changed since the COVID-19 pandemic.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D2B

Please rate your level of agreement with the statements below: <[PHONE](INTERVIEWER: Read list.)>

Before the COVID-19 pandemic, I believed that vaccines were **safe** for children.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D2C

Please rate your level of agreement with the statements below: <[PHONE](INTERVIEWER: Read list.)>

Before the COVID-19 pandemic, I believed that vaccines were **effective** for children.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D3 [1,15]

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

<[PHONE]INTERVIEWER: Read list and accept yes/no for each one> Please select all that apply.

Health care providers	1
Family/friends	2
Social media (e.g., Twitter, Facebook)	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
Community nursing stations or clinics	7
News/media	8

Scientific publications, journals	9
National Advisory Committee on Immunization (NACI)	10
International organizations (e.g., World Health Organization (WHO))	11
Indigenous organizations or Friendship Centres (e.g., First Nations Health Authority) ¹²	
Other, please specify:	77
I don't know	98
I prefer not to answer	99

D4A

To the best of your knowledge, please rate whether the following statements about childhood immunizations are true or false:

In general, vaccines are safe.

True	1
False	2
I don't know	98
I prefer not to answer	99

D4B

To the best of your knowledge, please rate whether the following statements about childhood immunizations are true or false:

In general, vaccines are effective.

True	1
False	2
I don't know	98
I prefer not to answer	99

D4C

To the best of your knowledge, please rate whether the following statements about childhood immunizations are true or false:

In general, COVID-19 vaccines are safe.

True	1
False	2
I don't know	98
I prefer not to answer	99

D4D

To the best of your knowledge, please rate whether the following statements about childhood immunizations are true or false:

In general, COVID-19 vaccines are effective.

True	1
False	2
I don't know	98
I prefer not to answer	99

D5A

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

In general, vaccines help to protect my child's health.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5B

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

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

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5C

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

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

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5D

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

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

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5E

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

Having my child vaccinated helps to protect the health of others in my family and/ or community.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5F

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

Most parents in my community have their children vaccinated with all recommended vaccines.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5G

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

Children receive too many vaccines at the same visit.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5H

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

Children receive too many vaccines, overall.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5I

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

It is better to develop immunity from having a disease rather than from a vaccine.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5J

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

Delaying child vaccines causes risks to their health.

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

D5K

To the best of your knowledge, please rate the extent to which you agree or disagree with the following statements about childhood immunizations: <[PHONE](INTERVIEWER: Read list.)>

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

Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
I don't know	98
I prefer not to answer	99

QA1

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 child's general background. We acknowledge that some of these questions might result in uncomfortable feelings.

What was CHILDI's sex at birth?

Male	1
Female	2
I don't know	98
I prefer not to answer	99

QA2 [1,10]

Which of the following best describes the racial or ethnic community that CHILDI belongs to? We recognize this list of racial or ethnic identifiers may not exactly match how you would describe CHILDI .

<[PHONE]INTERVIEWER: Read list if needed.> Please select all that apply.

Indigenous (First Nations, Métis and/or Inuit)	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
Latino/Latina (e.g. Latin American, Hispanic descent)	4
Middle Eastern and North African (e.g. Arab, Algerian, Egyptian, West Asian descent (e.g. Iranian, Israeli, Lebanese, Turkish, Kurdish))	5
South Asian (e.g., Afghan, Indian, Pakistani, Bangladeshi, Sri Lankan)	6
White (e.g., European, Caucasian)	7
Other, please specify:	77
I prefer not to answer	99

QA3

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

What was **your** sex at birth?

Female	2
Male	1
Other	77
I prefer not to answer	99

QA8

What is **your** gender? <[PHONE](IF NEEDED :)> 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.

Woman	1
Man	2
Non-binary	3
Transgender woman	4
Transgender man	5
Two-spirit/bi-spirit	6
Another gender, please specify:	77
I prefer not to answer	99

QA9

What is **your** sexual orientation?

<[PHONE]INTERVIEWER: Read list if needed.>

Heterosexual ("straight")	1
Gay	2
Lesbian	3
Bisexual	4
Asexual	5
Pansexual	6
Other, please specify:	77
I prefer not to answer	99

QA5

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

Less than a high school diploma or equivalent	1
High school diploma or equivalent	2
Registered apprenticeship or other trade certificate or diploma	3
College/CEGEP or other non-university certificate or diploma	4
University certificate or diploma below bachelor's level	5
University – bachelor's degree or equivalent	6
University – post-graduate degree above bachelor's level or equivalent	7
Other, please specify:	77
I prefer not to answer	99

QA6

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.

<[PHONE]INTERVIEWER: Read list if needed.>

Under \$20,000	1
\$20,000 to just under \$40,000	2
\$40,000 to just under \$60,000	3
\$60,000 to just under \$80,000	4
\$80,000 to just under \$100,000	5
\$100,000 to just under \$150,000	6
\$150,000 and above	7
I don't know	98
I prefer not to answer	99

THNK

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 on childhood immunization in urban Indigenous and away from home communities across Canada.

<[S10A = 1 and S10B = 2]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)

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

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

THNK2

<[S10 = 2,99 or S10A = 99]Thank you for your interest but for this survey, we are looking for Indigenous people.[S10A = 1,99 and S10B = 1,98,99]Thank you for your interest but for this survey, we are looking for Indigenous people who are not currently living on reserve.[S2 = 2,99]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.[CALCQAGE = 1 or S1AA = 2]Thank you for your interest but for this survey, you must be 18 years of age or older.[CALCS4AB = 1 or S9 = 2,98,99]Thank you for your interest, though unfortunately you are not eligible for this survey.[S9 = 1 or (S9 = 99 and S4A = 98,99)]Thank you for your interest, though unfortunately you are not eligible for this survey.[ELSE]Thank you for your interest, though unfortunately you are not eligible for this survey.>