



Childhood Vaccination Marketing Campaign Survey 2022

Report

Prepared for Health Canada

Supplier: EKOS RESEARCH ASSOCIATES INC.

Contract Number: CW2238744

Contract Value: \$112,793.78

Award Date: August 26, 2022

Delivery Date: February 15, 2023

Registration Number: POR 030-22

For more information on this report, please contact Health Canada at: hc.cpab.por-rop.dgcap.sc@canada.ca

Ce rapport est aussi disponible en français

Childhood Vaccination Marketing Campaign Survey 2022

Report

Prepared for Health Canada

Supplier name: EKOS RESEARCH ASSOCIATES INC.

Date: February 2023

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 in October 2022 with 1228 Canadians, including 1,035 parents with children 0 to 6 years of age, and 193 individuals who are currently pregnant or planning a pregnancy within the next 12 months.

Cette publication est aussi disponible en français sous le titre Sondage 2022 pour l'élaboration de la campagne de vaccination des enfants.

This publication may be reproduced for non-commercial purposes only. Prior written permission must be obtained from Health Canada. For more information on this report, please contact Health Canada at hc.cpab.por-rop.dgcap.sc@canada.ca or at:

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

Catalogue Number: H14-428/2023E-PDF

International Standard Book Number (ISBN): 978-0-660-46830-3

Related publications (registration number: POR 030-22)

Catalogue Number H14-428/2023F-PDF (French Report)
ISBN 978-0-660-46831-0

© His Majesty the King in Right of Canada, as represented by the Minister of Health, 2023

TABLE OF CONTENTS

| | |
|---------------------------------------|----|
| List of Tables | 4 |
| List of Charts | 4 |
| Executive Summary | 6 |
| A. Background and Objectives | 6 |
| B. Methodology | 7 |
| C. Key Findings | 9 |
| D. Note to Readers | 13 |
| E. Contract Value | 14 |
| F. Political Neutrality Certification | 14 |
| Detailed Findings | 15 |
| A. Perceptions and Concerns | 15 |
| B. Health Information | 24 |
| C. Information on Childhood Vaccines | 30 |
| D. COVID-19 Vaccinations | 45 |
| Appendices | 58 |
| A. Methodological Details | 58 |
| B. Survey Questionnaire | 62 |

LIST OF TABLES

- Table 1: Reasons for concerns
- Table 2: Single influencing statement about vaccines
- Table 3: Sources of health information
- Table 4: Primary online sources of health information
- Table 5: Source of difficulty in making vaccine-related decisions
- Table 6: Timing of thinking about vaccination
- Table 7: Main question about vaccines
- Table 8: Information gap in decision making
- Table 9: Timing of search for information on childhood vaccines
- Table 10: Internet sources
- Table 11: Number of doses of the COVID-19 vaccine received among children aged 5 or older
- Table 12: Influencing Factors
- Table 13: Reasons for not choosing to vaccinate against COVID-19
- Table 14: Incidence of delays
- Table 15: Demographic Table

LIST OF CHARTS

- Chart 1: Vaccine confidence
- Chart 2: Belief in effectiveness and safety of vaccines
- Chart 3: Trust in remedies for preventing or treating an illness in children
- Chart 4: Change in concern
- Chart 5: Looking for Canadian sources of health information
- Chart 6: Trust in various sources of health information
- Chart 7: Vaccination decision making
- Chart 8: Adequacy of available information on vaccines
- Chart 9: Specific resources of interest
- Chart 10: Preferred authority for addressing concerns about childhood vaccines
- Chart 11: Incidence of looking for information about childhood vaccines
- Chart 12: Sources of information on childhood vaccines
- Chart 13: Use of social media

Chart 14: Social media platforms used

Chart 15: Intent to vaccinate children under six months against COVID-19

Chart 16: Intent to vaccinate children aged 6 months to under 5 years of age against COVID-19

Chart 17: Potential concerns about COVID-19 vaccination

Chart 18: Catching up on delayed vaccinations

Chart 19: Impact of the COVID-19 pandemic on plans for recommended childhood vaccinations

Chart 20: Impact of the COVID-19 pandemic on concerns about recommend childhood vaccinations

Chart 21: Use of Breastfeeding

EXECUTIVE SUMMARY

A. BACKGROUND AND OBJECTIVES

Vaccines are a cornerstone of public health and their use has significantly contributed to the prevention and control of infectious diseases in Canada and internationally. However, if the current vaccination rates and/or programs were reduced or stopped, diseases controlled through immunization would re-appear in Canada.

In 2019, the World Health Organization named vaccine hesitancy as one of its top ten threats to global health, stating that it threatens to reverse progress in tackling vaccine-preventable diseases¹. According to Health Canada's 2017 Survey for the Development of the Childhood Vaccination Campaign², vaccine-hesitant parents are typically represented in two key categories: selective vaccinators and vaccine acceptors. Approximately 16-29% of respondents are in the former category as a result of doubts regarding the safety and effectiveness of vaccines³. Further compounding the problem is that a significant proportion of those who accept all vaccines may also harbour concerns about vaccination.

The information gathered from this survey updates the original baseline survey research conducted in 2017, in particular, to examine the impact of the COVID-19 pandemic on attitudes and behaviours regarding routine childhood vaccinations. A study conducted in the fall of 2021 shows that immunization rates have declined since the COVID-19 pandemic, with 23% of children having missed or delayed a routine vaccine (this figure is likely higher due to self-reporting/being unaware of vaccines needed).⁴ This public opinion research will inform the development of the new multi-year Childhood Vaccination marketing strategy to promote the safety, effectiveness and importance of vaccines.

The primary objective is to compare results and identify any changes in parents' and expecting parents' current state of awareness, knowledge, attitudes, beliefs, and behaviours with respect to vaccination. This provides valuable evidence regarding the effectiveness of ongoing public

¹ [WHO, Ten Threats to Global Health in 2019, 2019.](#)

² [Survey for the Development of the Childhood Vaccination Campaign, Findings Report. EKOS Research Associates Inc. 2017-2018.](#)

³ [Survey for the Development of the Childhood Vaccination Campaign, Findings Report. EKOS Research Associates Inc. 2017-2018.](#)

⁴ [Routine Immunizations in Canada Following the COVID-19 Pandemic, Neighbourhood Pharmacy Association of Canada and 19 to Zero.](#)

education campaigns and supports the development of new initiatives to ensure messaging and tactics are relevant and resonate with target audiences.

Specific objectives of the survey are to:

- Re-assess Canadians' level of awareness and knowledge concerning childhood vaccinations compared with 2017 survey results;
- Understand current views and understanding on this topic;
- Identify barriers, gaps in knowledge and misperceptions in this area;
- Examine the impact of the COVID-19 pandemic on attitudes and perceptions about childhood vaccines in particular; and,
- Understand what types of information parents need and where they look for information about childhood vaccination.

As in 2017, the two target audiences for the research and public education campaigns are:

- Parents of children six years of age and under
- Those who are pregnant or planning to become pregnant within the next year.

In addition to exploring results for these two segments, another key objective of the study will be to examine results among parents who are vaccine-hesitant, as well as those who are vaccine confident but may have missed a routine immunization for their child over the course of the COVID-19 pandemic.

B. METHODOLOGY

The survey is comprised of 1228 completed cases, including 1,035 parents with children six years of age and under, and 193 individuals who are currently pregnant or planning a pregnancy within the next 12 months. This randomly recruited probability sample would carry a margin of error of +/-2.80%. The margin of error is 3.05% for parents of children six and under and 7.05% for expecting parents. The sample source is *Probit*, an in-house panel of randomly recruited Canadians. In total, 10% of the sample was collected with a cellphone-only sample and 15% were collected by trained, bilingual interviewers, while the majority were collected through online self-administration.

Probit panellists were selected using a random-digit-dial (RDD) landline-cell phone hybrid sample frame. This is the same sample frame and sampling process used to conduct telephone

surveys, which are considered representative of the population⁵. Once selected, they are contacted and recruited by telephone and asked to complete a basic profile (i.e., base survey instrument) including a range of demographic information about themselves. They are also asked if they would prefer to complete surveys online or by telephone. All sample members are eligible to participate, including those with cell phones only, those with no Internet access and those who simply prefer to respond by telephone rather than online. This panel represents a fully representative sample of Canadians, from which we can draw random samples and collect data in a more cost-conscious and timely manner than would otherwise be possible in a traditional telephone survey. This panel of more than 120,000 individuals can be considered representative of the general public in Canada (meaning that the incidence of a given target population within our panel very closely resembles the public at large), and margins of error can be applied.

Prior to conducting the survey, the instrument was tested with 31 cases (21 completed online, ten completed by telephone, 19 in English and 12 in French). Additional questions were placed on the pretest version of the questionnaire, asking about length, flow, clarity of wording and so on to elicit feedback from respondents. Minimal changes were made as a result of the testing.

The survey was administered between October 4th and 30th, 2022, using a bilingual questionnaire installed on a secure web server controlled by EKOS. The email invitation included a description and purpose of the survey (in both languages) along with a link to the survey website. The survey database was mounted using a Personalized Identification Number (PIN), so only individuals with a PIN were allowed access to the survey (the PIN was included in the email invitation). The questionnaire was prefaced with a brief introduction to the study and rationale for the research. The voluntary and confidential nature of the survey was also emphasized. All invited panel members were informed of their rights under current Privacy legislation, as well as how to obtain a copy of their responses and results of the survey.

In this survey, an initial sample of 24,154 was drawn. Based on the sample attempted minus invalid records (649), out of completed interviews (1228) combined with those found out of scope for the survey (4,184), the response rate was 23%. The average length of the interview was 20 minutes online and 25 minutes by telephone.

Respondents were informed in the invitation that all responses are completely confidential and no responses will be linked to individual names.

⁵ Canadian Internet Use, Statistics Canada.

The database was reviewed following data collection for data quality, outliers, coding requirements, weighting and construction of independent variables. It was used to explore subgroup patterns (e.g., by age, gender and so on) in the analysis. The weighting of the sample was based on population parameters according to the latest Census on region of the country.

C. KEY FINDINGS

Perceptions and Concerns

Trust in recommended childhood vaccinations

Close to four in ten (39%) respondents said they accept all recommended vaccines and have no doubts or concerns about vaccinating their child, although this has fallen from 48% in 2017. One in three (33%) said they accept recommended vaccines. However, they have some minor doubts and concerns about vaccinating their child. 5% accept all recommended vaccines but nonetheless have many doubts and concerns. One in five (19%) said they have refused or delayed getting some vaccines for their children, and another 3% refuse all recommended vaccines. These last two numbers combined have doubled from 12% in 2017 to 22% in 2022.

There is a high level of confidence in the effectiveness of childhood vaccines (88% rate them as effective), and 80% rate them as safe. These results are similar to the 90% and 78%, respectively, found in 2017.

Vaccination decision making

The timing for thinking about their child's vaccination needs is varied suggesting a need for information at all stages. About one in four (27%) respondents started thinking about their child's vaccination needs during pregnancy. Indeed, 48% of expecting parents start thinking about their child's vaccination even before the pregnancy, although only 22% of parents indicated this. One in four (25%) parents started thinking about vaccinations soon after their child's birth, and 21% thought about it at the time when vaccinations were due or over the course of the first checkups. Compared with 2017 results, the timing for thinking about vaccinations seems to have shifted somewhat to an earlier stage in the process.

Trust in remedies for preventing or treating an illness in children

When asked about other remedies for preventing or treating an illness in children, respondents indicated the greatest trust in a healthy lifestyle (86%) followed by antibiotics (79%), and over-

the-counter medications (64%). Trust in over-the-counter medications rose by more than 10% since 2017 (53%). In contrast, respondents indicated lower levels of trust in vitamins and supplements (41%), as well as holistic medicine and homeopathic products (25% and 20%). There is no significant change in trust in these natural remedies since the 2017 survey. Respondents who are hesitant about vaccines indicated lower than average levels of trust in antibiotics (61%), and over the counter medications (44%), but higher than average trust in vitamins and supplements (56%) and holistic medicines (40%).

Reasons for concerns

Respondents with some doubts and concerns about vaccinations pointed to various reasons for their concerns. Roughly four in ten (42%) are concerned about side effects while three in ten (29%) are concerned that vaccines can cause allergic reactions. Three in ten (29%) respondents with some doubts and concerns indicated that vaccines have not been tested enough (doubled from 15% in 2017), or do not trust the pharmaceutical industry (28%). One in five (20%) are concerned about childhood vaccines because they generally do not trust the government. Concerns that vaccines may cause autism has dropped from 10% in 2017 to 4% in 2022.

When asked about the kind of information respondents wanted, just over one in three (37%) said they would like to know about side effects. Just under one in five would like to have answers about effectiveness in preventing the illness (17%), the vaccine schedule or timing of vaccines (15%), or the necessity of vaccines and consequences of not being vaccinated (12%).

Respondents identified a primary question they would like to have answered about vaccines for their child. Just over one in three (37%) said they would like to know about side effects. Just under one in five (17%) would like to have answers about efficacy, the vaccine schedule or timing of vaccines, or the necessity of vaccines and consequences of not being vaccinated.

Influencing statements

Respondents with some doubts and concerns about vaccinations (60%) were asked to consider a series of ten statements in terms of likely influence on vaccination decisions. The three most influencing statements include “Vaccines give best protection from more than a dozen serious diseases” (65%), “Immunization schedule is designed to protect infants/children” (64%), and “There is no cure for most vaccine-preventable diseases” (61%). These results are largely unchanged from 2017.

Just over half of respondents with doubts and concerns said they would be influenced by a “Doctor saying ‘I did it for my own family and kids’” (55%), the statement “Getting my baby vaccinated protects other children” (55%; down slightly from 2017 at 61%), and the statement that “Vaccines are very safe” (55%; not asked in 2017).

Information

Sources of health information

Survey results highlight healthcare professionals as a primary source of information related to their health and their children’s health for most of respondents (86%; similar to 89% in 2017). This decreases among parents who express concerns about the effectiveness of vaccines (73%). Just over half (55%; also similar to 2017) said they turn to the Internet. Other prominent sources include friends or family members (34%; 36% in 2017) and pharmacists (32%; 30% in 2017). Local public health authorities are noted by one in four (24%) respondents (not included in 2017 survey).

Over two in three (69%) place a high degree of trust in Health Canada and the Public Health Agency of Canada for health-related information, down from 76% in 2017. Trust in Health Canada and the Public Health Agency of Canada was significantly lower among respondents with many doubts or who refuse some or all recommended vaccines (23%).

Sources of information on childhood vaccines

When seeking out information specifically about childhood vaccinations, once again, the vast majority of those who looked for information sought guidance from a healthcare provider (84%). The Internet also ranks as a leading source of information, with nearly half (49%; 55% in 2017) saying that they searched online. One-quarter turned to family and friends for advice (24%; 31% in 2017), and less than one in five relied on books (16%; lower than the 24% in 2017) or a pharmacist (14%; 17% in 2017).

Those who went to the Internet said they turned to a variety of websites, most notably government websites (51% of parents and 44% of expecting parents), followed by parenting or pregnancy websites (36% and 33%). One in five (21% of parents and 32% of expecting parents) have turned to online medical websites. Online chat rooms and forums were used by 24% of expecting parents and 11% of parents.

Adequacy of Information about Vaccines

Although 84% of respondents feel they have enough information to make informed decisions, 13% feel they do not (16% in 2017). This rises to three in ten (30%) of respondents with many doubts or who refuse some or all vaccines who feel they do not have enough information. This is most often because they feel there is too much conflicting information about vaccines, followed by a lack of relevant information, inability to find sources for information or inability to find information from trustworthy sources. Concerns about the credibility of sources are more pronounced among those respondents with many doubts or who refuse some or all vaccines.

Issues of interest

When provided with a list of information topics related to childhood vaccinations, nine in 10 respondents were interested in information on the risks of vaccine side effects (92%), vaccination schedules (90%), the severity of vaccine-preventable diseases (88%), and the risks of contracting the actual diseases that childhood vaccines are meant to protect against (88%). Eight in ten (80%) also expressed interest in learning how vaccines are tested.

Preferred authority for addressing concerns

In terms of sources that respondents feel they would turn to if they had concerns about vaccinating their children, healthcare professionals are again cited as by far the most preferred, reported by over three in four (77%; 85% in 2017). Over one-quarter (28%; 23% in 2017) would consult a family member, and fewer would confer with another parent (15%) or the government (7%), with very similar results in 2017.

COVID-19 vaccinations

Respondents were asked three different questions about whether they will get their child(ren) vaccinated or are vaccinated against COVID-19. 42% reported that their child(ren) have received two doses of the COVID-19 vaccines. Only 11% report three doses.

On average, and depending on the child's age, approximately one in four indicated they would refuse COVID-19 vaccinations for their children (29% for children under six months; 30% for children six months to under five years; 26% for children five years and older). This is marginally higher than the 22% who said they refuse or delay some or all recommended childhood

vaccines. These respondents with no plans to have their child(ren) vaccinated against COVID tend to be younger than 35 and do not have a university degree.

A third (33%) of parents expressed no concern with COVID-19 vaccines for children. Nonetheless, just over one in four (28%) expressed concern about the potential side effects of the vaccine outweighing the benefits, with the next most cited reason being worries about the lack of long-term testing. One in ten (9%) believe healthy children have little to no risk of contracting COVID-19.

Impacts of the COVID-19 Pandemic

By and large, the pandemic has not interrupted most parents' intention for regular vaccinations (80%). Among those reporting a disruption, most (82%) have or intend to catch up with the recommended childhood vaccinations. Among the 9% who are not intending to get caught up with vaccinations, 41% indicated worry about the long-term effects and immediate side effects of the COVID-19 vaccine. Just under seven in ten (69%) said their concern about regular recommended childhood vaccinations is the same as before the pandemic. 12% say they are somewhat more concerned, and 9% say they are more concerned regarding regular recommended childhood vaccinations.

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. Bulleted text is also used to point out any statistically and substantively significant differences between sub-groups of respondents. If differences are not noted in the report, it can be assumed that they are either not statistically significant⁶ in their variation from the overall result or that the difference was deemed to be substantively too small to be noteworthy. Where there are significant differences between parents of children six or under the age of seven and those who are currently pregnant or planning a pregnancy within the next 12 months (called expecting parents in the report), these differences are described in the main paragraph, chart or in the bulleted text. The programmed survey instrument can be found in Appendix A.

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-

⁶ Chi-square and standard t-tests were applied as applicable. Differences noted were significant at the 95% level.

report their attitudes and behaviours related to vaccine hesitancy⁷. The primary purpose of the survey is to compare results with those measured in 2017 in terms of awareness, knowledge, attitudes, beliefs, and behaviours. 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 in all cases, particularly where they are not sizable (e.g., 10% or less). Results may also not total 100% due to rounding.

E. CONTRACT VALUE

The contract value for the POR project is \$112,793.78 (including HST).

Supplier Name: EKOS Research Associates

PWGSC Contract Number: CW2238744

Contract Award Date: August 26, 2022

To obtain more information on this study, please contact Health Canada at: hc.cpab.por-rop.dgcap.sc@canada.ca

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 Communications Policy of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research. 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)

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.

DETAILED FINDINGS

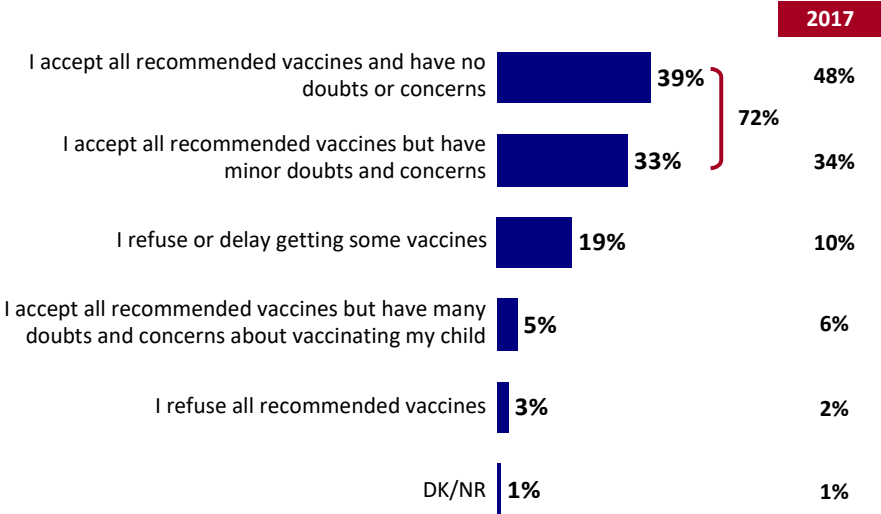
A. PERCEPTIONS AND CONCERNS

Vaccine Confidence

Seven in ten (72%) respondents indicated they accept all recommended vaccines and have no doubts or concerns about vaccinating their child (39%) or have only minor doubts (33%). Nonetheless, one in four (25%) refuse or delay getting some (19%) or all vaccines (3%). Five percent accept recommended vaccines but have many doubts (5%). Results among expecting parents are very similar to those expressed by parents of children six and under.

Compared with 2017, the proportion with no doubts is considerably lower (39% compared with 48%). The proportion who refuse or delay at least some vaccines is close to double what it was in 2017 (19% compared with 10%).

Chart 1: Vaccine Confidence



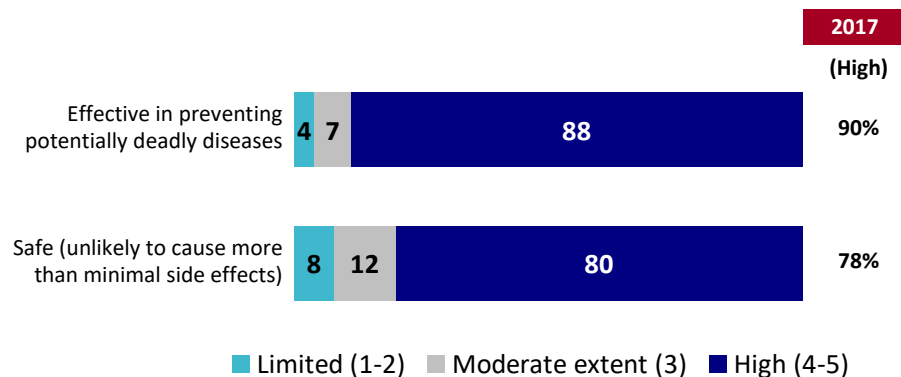
Q2. If you have to place yourself in only one category, which of the following statements most accurately reflects your views on vaccines for your child(ren)?

Base: All respondents (=1228)

- Those in Quebec are more likely than those in other regions to accept all recommended vaccines with no doubts (48%).
- Women are more likely to accept all recommended vaccines, although with minor doubts (36% compared with 30% among men). Men have a greater propensity to say they refuse or delay getting some vaccines (22% compared with 16% of women).
- Those with a university education are more likely to accept all recommended vaccinations with no doubts (46%). Respondents with a high school or college education are more likely than other segments to say they refuse all or some vaccines (35% and 31%, respectively).

Nearly nine in ten (88%) respondents feel that routine childhood vaccines are effective in preventing potentially deadly diseases. Comparatively fewer, but still eight in ten (80%), believe that vaccines are safe and unlikely to cause more than minimal side effects. Results for expecting parents are similar to those of parents with regard to effectiveness, however, somewhat fewer (75%) feel vaccines are safe compared with parents (81%). Overall results are in line with 2017 findings.

Chart 2: Belief in effectiveness and safety of vaccines



Q3A-B. On a scale of 1 to 5 where 1 is not at all, 5 is very, and the midpoint 3 is moderately, how much or how little would you say that routine childhood vaccines are...?

Base: All respondents (=1228)

- Again, those with higher education are more likely to say vaccines are both effective (92%) and safe (86%). While trust in the safety and effectiveness of vaccines is still moderate among those with a high school level of education, they have comparatively lower trust in both the effectiveness (70%) and safety (61%) of routine vaccines.

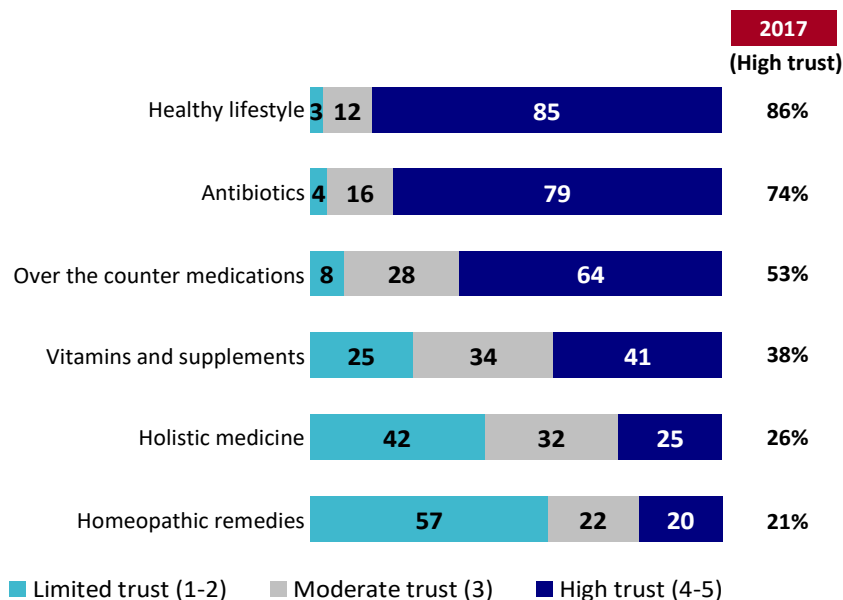
Trust in Remedies for Preventing or Treating an Illness in Children

Most (85%) respondents trust in a healthy lifestyle as a way to prevent or treat an illness in children. Eight in ten (79%) also place high trust in antibiotics. Fewer, but still two in three (64%) trust over-the-counter medications. Following these three trusted types of remedies, much smaller proportions of respondents trust the remaining three tested. Four in ten (41%) trust vitamins and supplements, although 25% indicated limited trust. Only 25% trust holistic medicine and 20% trust homeopathic products to treat an illness in children, and much more sizable proportions indicated limited trust in these remedies.

Those who are expecting are more likely to have trust in vitamins and supplements (53%) compared with 39% of parents. They are also more likely to trust homeopathic remedies (28% compared with 19% of parents) and holistic medicines (31% compared with 24% of parents).

Results are similar to those measured in 2017, although trust in over-the-counter medications is now higher (64% compared with 53% in 2017), as well as for antibiotics, though to a lesser degree (79% compared with 74% in 2017).

Chart 3: Trust in remedies for preventing or treating an illness in children



Q12A-F. On a scale of 1 to 5 where 1 is not at all, 5 is completely, and the midpoint 3 is moderately, how much do you trust each of the following remedies for preventing or treating an illness in children?

Base: All respondents (n=1228)

- Women are somewhat more likely than men to place their trust in holistic medicine (31% compared with 18% of men) and homeopathic products (24% compared with 16% among men).
- Respondents born outside of Canada more often trust vitamins and supplements (50% compared with 39% among those born in Canada) and homeopathic products (29% compared with 18% of other parents). This segment is less likely to place their trust in over-the-counter medicines (56% compared with 66% of other parents).
- Those with lower education are all more likely to trust vitamins and supplements (59% compared with 33% of those with university education), holistic medicine (40% compared with 20% among the university-educated), and homeopathic products (38% compared with 13% among those attending university). There is less trust, however, placed in antibiotics (68% compared with 81% among university-educated parents).

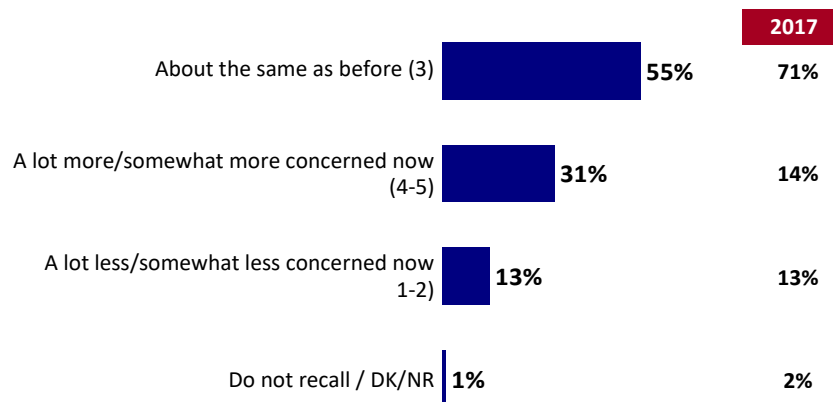
Incidence of Concern Related to Vaccines

Three in ten respondents (31%) indicated greater concern about vaccines than they had a year or two before. The proportion reporting increased concern in the last year or two is more than double the proportion reporting less concern (13%), with 55% saying their concern had not changed.

Results are very similar between parents and those who are expecting.

Results have changed significantly since 2017, when only 14% said they had grown more concerned from previous years compared with 31% in 2022.

Chart 4: Change in concern



Q11. Thinking about the last year or two, would you say you are more concerned, less concerned, or feel about the same about vaccines now as you did then?

Base: All respondents (n=1228)

- Higher proportions of those with high school indicated a rising level of concern (41%), while those with a university level of education are most likely to report the same level of concern as in previous years (59%).
- New Canadians are more likely to say they feel less concerned (20% compared with 11% of those born in Canada) than in the previous few years.

Respondents with some doubts and concerns about vaccinations pointed to a variety of reasons for their concerns, based on a list provided. Key concerns included side effects (42%), vaccines causing allergic reactions (29%), not being tested enough (29%), and not trusting the pharmaceutical industry (28%). One in five (20%) pointed to a lack of trust in “the government” and smaller proportions indicated concerns about too many vaccines within a short period of time (17%), a general requirement for too many vaccines (12%), or pointed to the COVID-19 pandemic, including COVID-19 vaccines (11%).

Concerns about side effects have seemingly increased since 2017, although the survey question changed in 2022 making comparison difficult. Results also suggest a possible increase in concerns about adequate testing (29% compared with 15% in 2017), and increased lack of trust in government (20% compared with 12% in 2017). There also seems to be fewer now who believe that vaccines may contain toxic ingredients (8% compared with 22% in 2017), or that vaccines may cause autism (4% compared with 13% in 2017).

Table 1: Reasons for concerns

| | Total 2022 | Total 2017 |
|-----------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| <i>What are the main reasons you are concerned about vaccines for your child(ren)? (Select all that apply)</i> | | |
| <i>Base: Respondents who have some or many concerns or refuses some or all vaccines</i> | <i>n=604</i> | <i>n=420</i> |
| Vaccines cause side effects | 42% | 24% ⁸ |
| Vaccines can cause allergic reactions | 29% | 28% |
| Vaccines have not been tested enough | 29% | 15% |
| I don't trust the pharmaceutical industry | 28% | 27% |
| I don't trust the government | 20% | 12% |
| I think too many vaccines are offered in a short period | 17% | 17% |
| I think too many vaccines are needed | 12% | 13% |
| Specific concerns related to some or all COVID vaccines | 9% | -- ⁹ |
| I think vaccines contain toxic ingredients | 8% | 22% |
| Vaccines are not necessary - the body can take care of itself | 7% | 4% |
| Vaccines are not effective at preventing disease | 5% | 7% |
| General concerns about effects, may cause death in certain cases, need for more accurate/honest information available | 4% | 13% |
| They may cause side effects, the risks outweigh catching COVID | 4% | -- |
| I believe vaccines may cause autism | 4% | 10% |
| Important to be informed/aware, unwise to ignore concerns/doubts, conflicting information | -- ¹⁰ | 7% |
| I don't believe in vaccines for personal reasons | 3% | 1% |
| Concerns specific to government/response to pandemic and vaccines (e.g., information, coercion) | 2% | -- |
| I don't believe in vaccines for religious reasons | 1% | 1% |
| Other | 13% | 2% |
| Don't know / No response | 3% | 5% |

- Distrust in the pharmaceutical industry and government is considerably more prominent among men (33% and 23%, respectively) compared with women (21% and 14%, respectively). Women, however, are much more likely to have concerns about allergic reactions (33% compared with 25% among men) and too many vaccines in a short period of time (21% compared with 14% among men).

⁸ In 2017 the wording was “Vaccines may cause side effects and diseases they are supposed to prevent”.

⁹ Pandemic/COVID-19-related responses not found in 2017.

¹⁰ This theme of responses not found in 2022.

- Parents who have delayed or refused vaccinations for their child are much more likely to have selected each of the reasons for concern provided in the list, compared with the levels reported by parents who have few or no concerns about recommended vaccines.
- Distrust in government is more prominent among those with a college level of education (25%) compared with parents with a university education (18%) or high school education (8%).

Respondents who indicated that they refuse or delay some or all vaccines or have some or many doubts and concerns about vaccinations were asked to consider a series of ten statements and indicate the likelihood of each statement influencing their decision to vaccinate their child(ren). Nearly two out of three respondents identified three statements as having a greater influence on their likelihood to vaccinate their child(ren). These include:

- “Vaccines give infants and young children the best protection from more than a dozen serious diseases.” (65%),
- “The recommended immunization schedule is designed to protect infants and children by providing immunity early in life before they are exposed to life-threatening diseases.” (64%), and
- “There is no cure for most vaccine-preventable diseases. Vaccination is our best protection.” (61%).

Just over half of this group of respondents said the following statements would influence them:

- “Hearing your doctor says “I strongly recommend this vaccine. I did it for my own family and kids.”” (55%),
- “Getting my child vaccinated also protects those children who are too young or too sick to be vaccinated themselves.” (55%), and
- “Vaccines are very safe and undergo comprehensive clinical trials and government review process before being approved for use in Canada.” (55%).

Just under half (47%) of this group of respondents indicated that the following statement would influence their decision: “The head of every pediatric hospital in Canada recommends routine vaccination for children.” Expecting parents are less likely to say this would have an influence (38% compared with 49% of parents).

Roughly four in 10 indicated the following statements would positively influence them:

- “Serious reactions from vaccines are rare.” (42%);

- “Scientific studies and reviews show no relationship between vaccines and autism.” (41%); and
- “The Public Health Agency of Canada recommends routine vaccination for children.” (37%).

Survey results are largely in line with 2017 findings, however, slightly fewer are influenced by vaccination protecting children too young or sick to be vaccinated (55% compared with 61% in 2017) and recommendation from the Public Health Agency of Canada (37% compared with 42% in 2017).

Table 2: Influencing statement

| Q15A-K. If you were to decide today on vaccines for your child, which of the following statements would influence your decision? Would it make you more likely to vaccinate, less likely to vaccinate, or would it make no difference? | 2022 Less likely to vaccinate | 2022 Would make no difference | 2022 More likely to vaccinate | 2017 Less likely to vaccinate | 2017 Would make no difference | 2017 More likely to vaccinate |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Vaccines give infants and young children the best protection from more than a dozen serious diseases | 4% | 27% | 65% | 2% | 27% | 69% |
| The recommended immunization schedule is designed to protect infants and children by providing immunity early in life, before they are exposed to life-threatening diseases | 5% | 28% | 64% | 3% | 30% | 63% |
| There is no cure for most vaccine preventable diseases. Vaccination is our best protection | 8% | 28% | 61% | 4% | 28% | 65% |
| Hearing your doctor say "I strongly recommend this vaccine. I did it for my own family and kids" | 7% | 36% | 55% | 4% | 37% | 57% |
| Getting my child vaccinated also protects those children who are too young or too sick to be vaccinated themselves | 9% | 34% | 55% | 5% | 32% | 61% |
| Vaccines are very safe and undergo comprehensive clinical trials and government review process before being approved for use in Canada | 11% | 31% | 55% | -- | -- | -- |
| The head of every pediatric hospital in Canada recommends routine vaccination for children | 9% | 41% | 47% | 4% | 45% | 48% |
| Serious reactions from vaccines are rare | 13% | 43% | 42% | 10% | 46% | 43% |
| Scientific studies and reviews show no relationship between vaccines and autism | 7% | 47% | 41% | 9% | 46% | 41% |
| The Public Health Agency of Canada recommends routine vaccination for children | 15% | 46% | 37% | 6% | 51% | 42% |

Base: Respondents who refuse or delay some vaccines or have some or many doubt and concerns (n=725)

- New Canadians are more likely than those born in Canada to be influenced by the recommendation of the Public Health Agency of Canada (47% compared with 35%).

B. HEALTH INFORMATION

Sources of Health Information

Survey results highlight strong reliance on healthcare professionals as a primary source for information related to their health and the health of their children. More than eight in ten respondents (86%) cited healthcare providers as a primary source of information. To a significantly less degree, just over half (55%) turns to the Internet. Fewer still said they would consult a friend or family member (34%) or a pharmacist (32%), and local public health authorities are used by 24%. Other recurring responses include printed resources (8%) and community resources such as a school or caregiver (6%).

Compared to parents, expecting parents are more likely to turn to the Internet (62% compared to 54%), to friends and family members (46% compared to 32%), and printed resources (13% compared to 7%).

Results are largely in line with 2017 findings.

Table 3: Sources of health information

| | Parent 2022 | Pregnant 2022 | Parent 2017 | Pregnant 2017 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------|----------------------------------------|---------------------------------------------------------|
| <i>Thinking about the last time you had a question related to your health or your child's health, where did you look for information and/or who did you talk to? (Select all that apply)¹¹</i> | <i>Parents of children 0-6 (n=1035)</i> | <i>Those currently/intending to be pregnant (n=193)</i> | <i>Parents of children 0-6 (n=828)</i> | <i>Those currently/intending to be pregnant (n=201)</i> |
| Healthcare providers (e.g., physician, nurse) | 86% | 87% | 88% | 92% |
| Internet | 54% | 62% | 54% | 62% |
| Family member/friend | 32% | 46% | 32% | 52% |
| Pharmacist | 32% | 32% | 30% | 31% |
| Local public health authorities | 24% | 23% | -- ¹² | -- |
| Federal government (e.g. Government of Canada website, telephone, etc.) | 14% | 17% | -- | -- |
| Provincial and territorial government | 15% | 19% | -- | -- |
| Printed resources (e.g., pamphlet, book, magazine) | 7% | 13% | 11% | 21% |
| School, caregiver or someone else in community | 6% | 5% | 7% | 9% |
| Other | 5% | 5% | 1% | 1% |

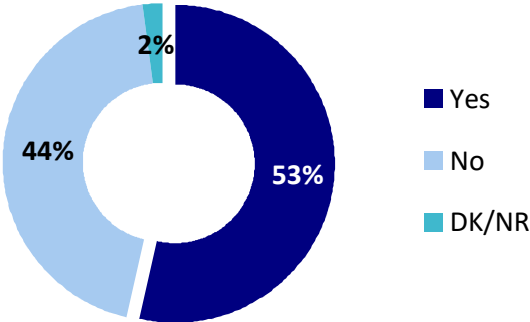
- Regionally, residents of British Columbia are more likely than others across the country to turn to local public health authorities (41%) and provincial government (24%) for information. Residents of the Atlantic provinces and Quebec are more likely than others to rely on healthcare providers (46% and 41%, respectively).
- Women indicated that they are more likely than men to turn to friends and family (38% compared with 30%).
- Parents under 35 years old indicated that they are more likely to turn to the Internet (60%) and family and friends (41%) than parents 35 to 44 years of age (54% and 33%, respectively).
- University graduates are more likely to search online for health-related information (59%) or consult their local health authority (26%) or provincial/territorial government (19%) compared with those with high school or college education.

¹¹ Note that this question allowed for multiple responses, therefore adding to more than 100%. Respondents selected 2.75 sources on average.

¹² Local public health authorities, federal government and provincial/territorial government were added in 2022.

Just over half (53%) of respondents indicated they look specifically for Canadian sources of information.

Chart 5: Looking for Canadian sources of health information



QA2A. When you search for health information, do you specifically look for Canadian sources of information?

Base: All respondents (n=1228)

- Residents of Quebec are more likely to seek out Canadian sources of information (66%), while residents of Ontario are lower than the national average (48%). It is also higher among women (57%) compared with men (50%).
- Those born outside of Canada are less likely than the average to look for Canadian sources of information (47%).

Primary Online Sources of Health Information

Respondents who indicated they turn to the Internet for health-related information were asked to identify more specifically the types of online sources of information. Half of the respondents said they turn to government websites for health-related information (51% of parents and 48% of expecting parents). Parenting and pregnancy websites are also popular, in particular among expecting parents (47% compared with 34% of parents). Online medical websites¹³ are also used more often by expecting parents (31% compared with 21% of parents). Expecting parents are also slightly more likely to seek out health-related information in online chat rooms and forums than parents (18% compared with 13%). About one in five of both groups turn to social media.

Table 4: Primary online sources of health information

| | Parent 2022 | Pregnant 2022 | Parent 2017 | Pregnant 2017 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|----------------|------------------|
| <i>Where on the Internet would you usually go? (Select all that apply)</i> <i>Base: Those who indicated they recently went to the Internet with health-related questions</i> | <i>n=558</i> | <i>n=121</i> | <i>n=440</i> | <i>n=123</i> |
| Government websites ¹⁴ | 51% | 48% | 11% | 5% |
| Online parenting/pregnancy websites | 34% | 47% | 34% | 60% |
| Online medical website (which one?) | 21% | 31% | 2% | 4% |
| Social media | 16% | 20% | 8% | 24% |
| Web MD | 15% | 11% | 21% | 21% |
| Google, searches, various sites | 13% | 11% | 20% | 13% |
| Online chat rooms/forums/blogs | 13% | 18% | 12% | 23% |
| Mayo clinic | 10% | 10% | 13% | 6% |
| Academic/scientific website | 5% | 6% | 5% | 6% |
| Various health centre/hospital sites | 4% | 1% | 1% | 0% |
| International government health sites | 3% | 2% | 4% | 2% |
| Other | 8% | 11% | 12% | 12% |
| Don't know / No response | 4% | 0% | 11% | 8% |

¹³ Websites commonly noted are WebMd, May Clinic, Healthline, Passport Santé, provincial/territorial health authorities, hospital/pharmacy websites, Info Santé and Naitre et grandir.

¹⁴ 2017 results are combined for Government of Canada, Health Canada, provincial health sources and government (general mention).

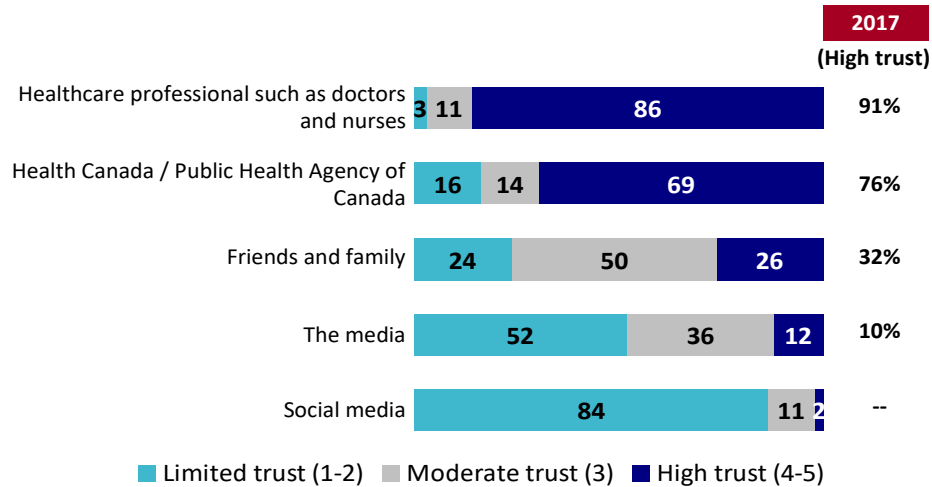
- Women are more likely to rely on online medical websites (28% compared with 17% among men).
- Those under 35 years of age are more likely to rely on online medical websites (43% compared with 35% of those 35 to 44).
- Those with a university level of education are more likely to visit government websites (55% compared with 42% to 44% of those with less education).

Trust in Various Sources of Health Information

Half of the respondents were randomly selected and asked to rate their confidence in a number of key sources of health-related information. Trust in healthcare professionals is the strongest, with more than eight in ten (86%) expressing a high degree of trust in these individuals. Two in three (69%) respondents place a high degree of trust in Health Canada and the Public Health Agency of Canada. Trust in social networks is considerably lower, with one in four (26%) rating their trust in family and friends as high. Media is accorded a low degree of trust, with half (52%) of respondents indicating low trust in information issued by the media. Social media is cited as the least trustworthy source of health information at 84% low to no trust.

Results among parents and expecting parents are similar across each of these sources. Results are also similar to those found in 2017, although trust levels seem marginally eroded across the board, with the largest change found for the level of trust for Health Canada/Public Health Agency of Canada (76% vs. 69%).

Chart 6: Trust in various sources of health information



QA3A-F. On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how much trust do you put in each of the following to give you credible health information?

Base: Randomly selected half of respondents (n=611)

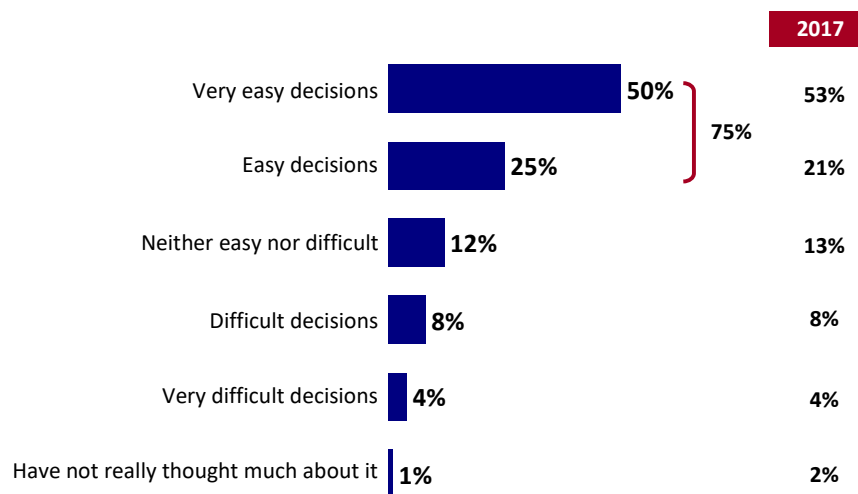
- Regionally, Quebec residents have comparatively more trust in healthcare professionals (95% compared with 86% overall), Health Canada and the Public Health Agency of Canada (84% compared with 69%), and the media (20% compared with 12% overall).
- Women (73%) are more likely to trust Health Canada and the Public Health Agency of Canada than men (63%).
- Trust in healthcare professionals rises with the level of education, with 89% of university graduates expressing high trust compared to 77% of high school educated. Trust in Health Canada and the Public Health Agency of Canada also seems to rise progressively with educational attainment (from 56% among high school educated to 75% among university graduates).

C. INFORMATION ON CHILDHOOD VACCINES

Vaccination Decision-Making

Three in four (75%) parents of children 0 to 6 have found decisions about vaccinating their child to be easy (25%) or very easy (50%). Nonetheless, 12% have found these decisions difficult to make and 12% were more neutral (i.e., neither easy nor difficult). Results are in line with 2017 findings.

Chart 7: Vaccination decision making



Q9B2. How easy or difficult has it been to make decisions about vaccinating your child?

Base: Parents of children 0-6 (n=1,035)

- Parents in Quebec (80%), as well as those with a university level of education (81%), are most likely to have found the decisions easy to make.
- Those born outside of Canada (17%) and parents with a college education (18%) are more likely to have found the decisions difficult to make.

A relatively small number of parents who found it difficult to make a decision on vaccinating their children (n=125) elaborated on the reason they found the decision difficult. One in five (21%) expressed concern with the potential risks or side effects. Others pointed to concerns about some or specific vaccines such as those developed for COVID-19 (12%), a perception of biased or dishonest information coming from public health authorities (12%), conflicting information (12%) or a lack of trust in pharmaceutical companies (10%). Other reasons noted in Table 5 were cited by fewer parents.

It is difficult to compare results with 2017 since the question was answered by relatively few respondents in 2022 and 2017, and because it was an open question and responses were taken verbatim and coded into main themes following collection.

Table 5: Source of difficulty in making vaccine-related decisions

| | Total 2022 | Total 2017 |
|------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|
| <i>Why do you say that? (Open response)</i> | | |
| <i>Base: Those who found the decision on vaccinating their child difficult/very difficult</i> | <i>n=125</i> | <i>n=94</i> |
| Potential risks or side effects/weighing risk versus benefits | 21% | 2% |
| Specific to new/some/covid vaccines, not all | 12% | -- ¹⁵ |
| Biased/dishonest information from public health authorities | 12% | 14% |
| Conflicting information | 12% | 13% |
| Trust issues with pharmaceutical companies (have lied in the past for profit, manufacturers have erred in the past...) | 10% | -- |
| Lack of trust in governments' agenda/motives/actions (money/deals with pharma, fear mongering/mandating/coercion/threats...) | 7% | -- |
| No long-term testing done | 5% | 3% |
| Lack of information available | 5% | 4% |
| Lack of proven effectiveness, do not know how effective they are | 4% | -- |
| Other | 31% | 30% |
| Don't know / No response | 10% | 13% |

*Responses with 4% or higher shown.

¹⁵ Some themes of responses in 2022 were not found in 2017.

About one in four respondents started thinking about their child’s vaccination needs during the pregnancy (27%), soon after their child’s birth (24%) or before the pregnancy (23%, although this rises to close to half for expecting parents (48%)). One in ten (9%) parents started thinking about vaccinations over the course of the first few checkups with their baby’s doctor. Roughly one in ten (12%) parents only started thinking about needs when it was time to vaccinate their child. The same proportion of expecting parents (12%) said they have yet to give it much thought, most likely because most of this segment is either considering pregnancy or early in the pregnancy.

Results are largely in line with those found in 2017. It should be noted that the sample sizes for expecting parents are small in both 2022 and 2017 and results should be treated with caution.

Table 6: Timing of thinking about vaccination

| | Parent 2022 | Pregnant 2022 | Parent 2017 | Pregnant 2017 |
|----------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------|----------------------------------------|-------------------------------|
| <i>When did you start thinking about your <child/first child>'s vaccination needs?</i> | <i>Parents of Children 0-6 (n=1035)</i> | <i>Those pregnant (n=41)*</i> | <i>Parents of Children 0-6 (n=828)</i> | <i>Those pregnant (n=56)*</i> |
| Before the pregnancy | 22% | 48% | 19% | 27% |
| During the pregnancy | 27% | 33% | 25% | 25% |
| After prenatal classes | 2% | 0% | 2% | 2% |
| Soon after my child's birth | 25% | 0% | 32% | 0% |
| Over the course of the first few check ups with my baby's doctor | 9% | 0% | 10% | 0% |
| Over the past few years | 1% | 0% | 1% | 0% |
| When it was time to vaccinate | 12% | 4% | 9% | 29% |
| Have not yet really given it much thought | 2% | 12% | 2% | 15% |
| Other | 0% | 0% | 0% | 0% |
| Don't know / No response | 0% | 2% | 1% | 2% |

* Small sample size should be noted

- Women are more likely to indicate that the decision-making process began in pregnancy (32% compared with 23% among men). Men are more likely to say this occurred after the birth of the child (28% compared with 21% among women).

Half of the respondents were randomly selected and asked to identify the primary question they would like to have answered about vaccines for their child. The most predominant theme was related to side effects from vaccines (e.g., what are they likely to be, incidence and severity of side effects) at (37%)¹⁶. Considerably fewer (17%) described questions related to efficacy of vaccines in preventing illness, and 15% are looking for explanations about schedules and timing with other vaccines, while 12% want to know about the need for vaccines. Ingredients are a key concern for 7%.

Those expecting are more likely to want explanations about timing and schedules (22% compared with 13% among other parents).

Table 7: Main question about vaccines

| | Total 2022 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <i>If you had one question that you would like to have answered about vaccines for your child, what would that question be?</i> <i>Base: Randomly selected half of all respondents</i> | n=614 |
| Information on side effects from getting the vaccine (e.g., fever, muscle aches) | 21% |
| Statistics/information on efficacy of the vaccine (e.g., how much it prevents the illness) | 17% |
| Statistics/information on incidence related to vaccine (e.g., number negatively effected) | 16% |
| Explanations/understanding more the scheduling/timing of vaccines (e.g., why those ages, at the same time/mixing vaccinations, options for scheduling) | 15% |
| The need for the vaccine (e.g., How necessary is it, what are the consequences if you choose not to) | 12% |
| Information on the ingredients/contents of a vaccine (e.g., what is in them, why use certain ingredients/amounts of, why not take harmful ingredients out, dosage/amounts) | 7% |
| Transparency/unbiased studies from sources without any conflict of interest | 2% |
| Other | 3% |
| I don't have any questions / No response | 7% |

- Those in Quebec are more likely than residents of other regions to want to know about side effects (32% compared to 21% nationally). This is also more prominent

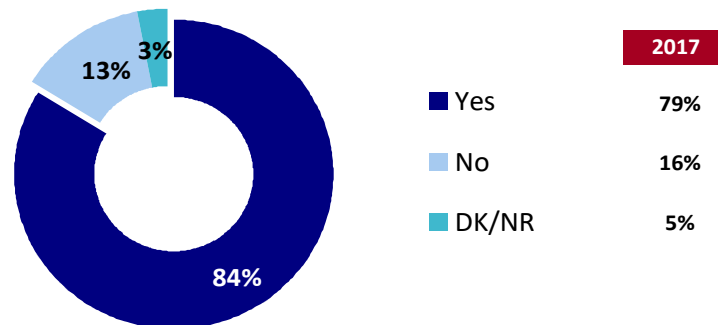
¹⁶ Includes 21% looking for information on side effects and 16% looking for statistics related to negative incidents.

among those with a high school level of education (36% compared with other parents (19% to 20%))

Adequacy of Available Information on Vaccines

More than eight in ten respondents feel they have enough information to make an informed decision (84%), although 13% feel they do not. Expecting parents are less likely to feel they have enough information (79% compared with 85% of parents). Confidence that respondents have enough information has increased somewhat since 79% in 2017.

Chart 8: Adequacy of available information on vaccines



Q9. Do you feel you have enough information or resources available to make informed decisions about vaccines for your child?

Base: All respondents (n=1228)

- Those born outside of Canada are more likely to say they do not feel they have sufficient information (20% compared with 11% among those born in Canada).

Among respondents who do not feel they have enough information to make an informed decision, conflicting information about vaccines is often a key reason (42%). Other important reasons include:

- the information does not cover what they want to know (33%);
- the information is not from a credible and trustworthy source (31%);
- they do not know where to look for the right information (26%);
- when they search for the information, it doesn't seem to be out there (22%);
- the overwhelming amount of information available on the Internet (20%);
- information that is too hard to understand (e.g., confusing, technical) (15%);
- they have never really looked very hard for information (11%);

- not having the time to look prior to appointments (9%).

Results are largely similar to 2017 results, although the credibility of sources has risen marginally.

Table 8: Information gap in decision making

| | Total 2022 | Total 2017 |
|-------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| <i>Why do you feel you don't have enough information to make an informed choice? (Select all that apply)</i> | | |
| <i>Base: Those who do not feel they have enough information or resources available to make an informed choice</i> | <i>n=156</i> | <i>n=161</i> |
| There is conflicting information about vaccines | 42% | 46% |
| The information does not cover what I want to know | 33% | 31% |
| The information is not from a credible, trustworthy source | 31% | 25% |
| I don't know where to look for the right information | 26% | 29% |
| When I search for the information, it just doesn't seem to be out there | 22% | 18% |
| There is too much information out there / it is overwhelming | 20% | 17% |
| The information is too hard to understand, confusing, or too technical | 15% | 11% |
| I never really looked very hard for information | 11% | 12% |
| I don't have time to look before the appointments | 9% | 5% |
| The information I find is not in my language | 1% | 1% |
| Other | 14% | 2% |
| Don't know / No response | 2% | 3% |

- Those under 35 (22%) are more likely to indicate they have never looked very hard for information compared with 0% those 45 or older.
- Not being able to find a credible, trustworthy source is more often noted in Ontario (43%) and among those with a college level education (47%) compared with other respondents, where this is noted 16% to 22% of the time.

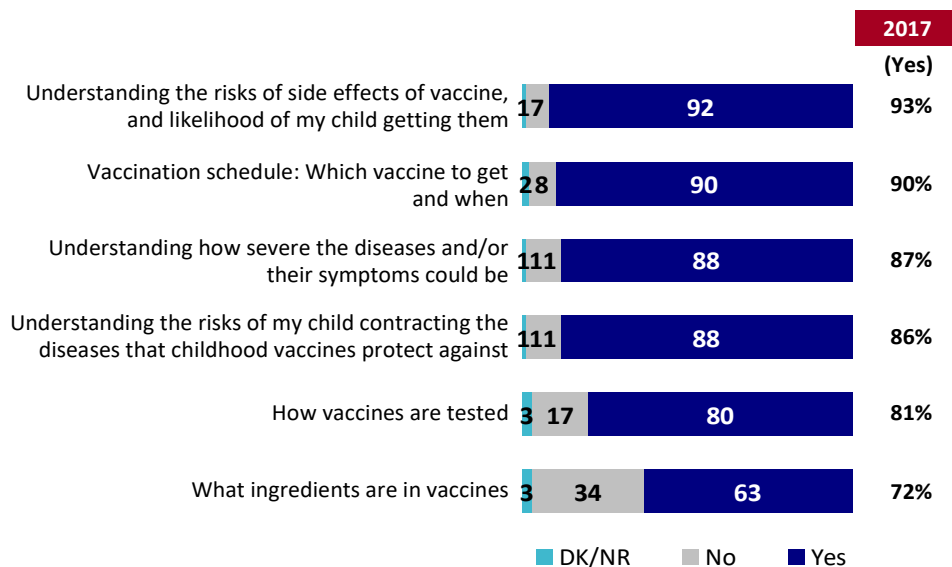
Specific Resources of Interest

Survey results highlight strong interest in a wide range of information about childhood vaccines. Selected from a prompted list, nine in ten respondents would like information on the risks of vaccine side effects (92%), suggested vaccination schedules (90%), the severity of vaccine-preventable diseases (88%), and the risks of contracting the actual diseases that childhood vaccines are meant to protect against (88%). Eight in ten (80%) also expressed interest in learning how vaccines are tested. Fewer, but still close to two in three (63%), are interested in knowing about the ingredients in vaccines.

Expecting parents are more interested in information about vaccine schedules (95%) than parents (89%), and in information about ingredients in vaccines (72%) compared with parents (62%).

Results are in line with 2017 findings with the exception of lower interest in vaccine ingredients compared with 72% in 2017.

Chart 9: Specific resources of interest



Q9CA-CI. What information or resources would you like to have available?

Base: All respondents (n=1228)

- Nearly all individuals who accept vaccination want more information on recommended vaccine schedules (97%, compared to 75% among with many doubts or who refuse some or all recommended vaccines), while they express

comparatively less interest in learning more about how vaccines are tested (72% compared with 91%) and vaccine ingredients (48% compared with 89%).

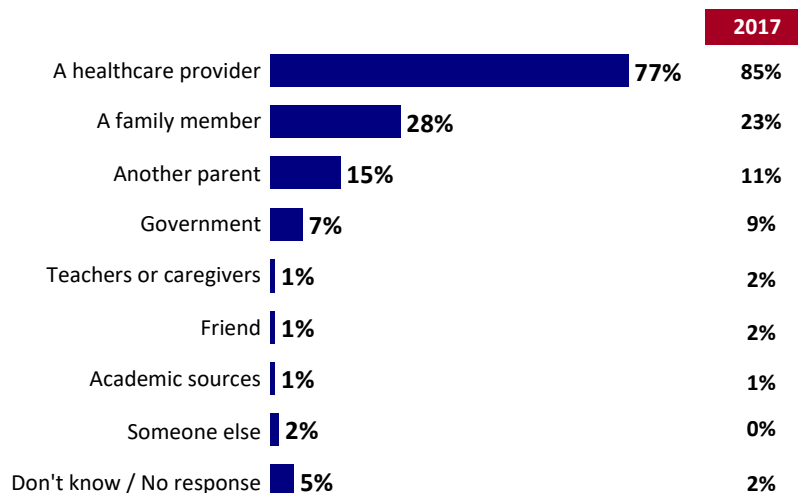
- There is also a difference based on education, with those reporting a high school level education more likely to express an interest in ingredients (75% compared with 58% among the university-educated). The university-educated group is more likely to be interested in vaccine schedules (93% compared with 80% among the high school-educated).

Preferred Authority for Addressing Concerns about Childhood Vaccines

In terms of sources respondents feel they would turn to if they had concerns about vaccinating their children, healthcare professionals are by far the most relied-upon source of information, according to more than three in four (77%). Just over one-quarter (28%) said they would consult a family member, and 15% would confer with another parent. Government is farther down the list at 7%.

Expecting parents are more likely than parents to turn to a family member (35% compared with 27% of parents). Results are in line with 2017 with the exception of healthcare providers, which dropped by 8 points.

Chart 10: Preferred authority for addressing concerns about childhood vaccines



Q14. If you were feeling uncomfortable or worried about the decision to vaccinate your child, who would you turn to?

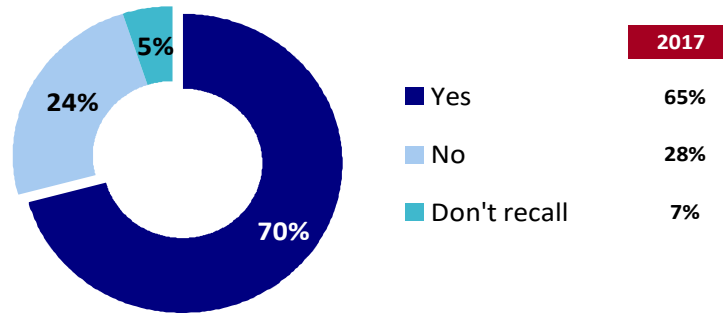
Base: All respondents (n=1228)

- Those under the age of 35 are more likely to say they would turn to a friend or family member (33%, compared to 18% among those 45 or older).
- Individuals with a university level of education are more likely (79%) to speak with a healthcare provider than those with college (77%) or high school (67%).

Incidence of Looking for Information about Childhood Vaccines

Seven in ten respondents (70%) report having looked for information about childhood vaccines, although 24% have not, and the rest do not recall one way or the other. Only 51% of expecting parents reported looking for information about childhood vaccines compared with 74% of parents. Overall, the results are in line with 2017.

Chart 11: Incidence of looking for information about childhood vaccines



Q8. Have you ever looked for information about childhood vaccines?

Base: All respondents (n=1228)

- Likelihood of looking for information is higher among men (74% compared with 67% among women). It is also highest in the Prairies (76%) and lowest in Quebec (62%).

Timing of Search for Information on Childhood Vaccines

The vast majority of respondents who have searched for information about childhood vaccines began their search well in advance. One in five parents started to search for information before the pregnancy (17%), and more than one-quarter (28%) started their search during the pregnancy. One-quarter of parents (23%) began to look for information soon after the child's birth, and a further one in ten parents (9%) began this process over the course of the first few checkups with their baby's doctor. Just one in six (13%) waited until it was time to vaccinate.

The sample size for expecting parents is too small (in 2022 and 2017) to draw conclusions.

Overall, the results are in line with the 2017 results.

Table 9: Timing of search for information on childhood vaccines

| | Parent 2022 | Pregnant 2022 | Parent 2017 | Pregnant 2017 |
|----------------------------------------------------------------------------------|----------------|------------------|----------------|------------------|
| <i>When did you start looking for information about childhood vaccines?</i> | | | | |
| <i>Base: Respondents who had looked for information about childhood vaccines</i> | <i>n=763</i> | <i>n=25*</i> | <i>n=564</i> | <i>n=23*</i> |
| Before the pregnancy | 17% | 40% | 19% | 18% |
| During the pregnancy generally | 28% | 44% | 25% | 30% |
| After prenatal classes | 1% | 0% | 1% | 0% |
| Soon after my child's birth | 23% | 0% | 26% | 0% |
| Over the course of the first few check ups with my baby's doctor | 9% | 0% | 9% | 0% |
| When it was time to follow the recommended immunization schedule | 13% | 0% | 15% | 44% |
| In the past few years | 6% | 12% | 4% | 9% |
| Have not yet really given it much thought | 0% | 4% | 1% | 0% |
| Other | 2% | 0% | 1% | 0% |

* Sample size is too small to draw conclusions about any significant differences among expecting parents compared with parents.

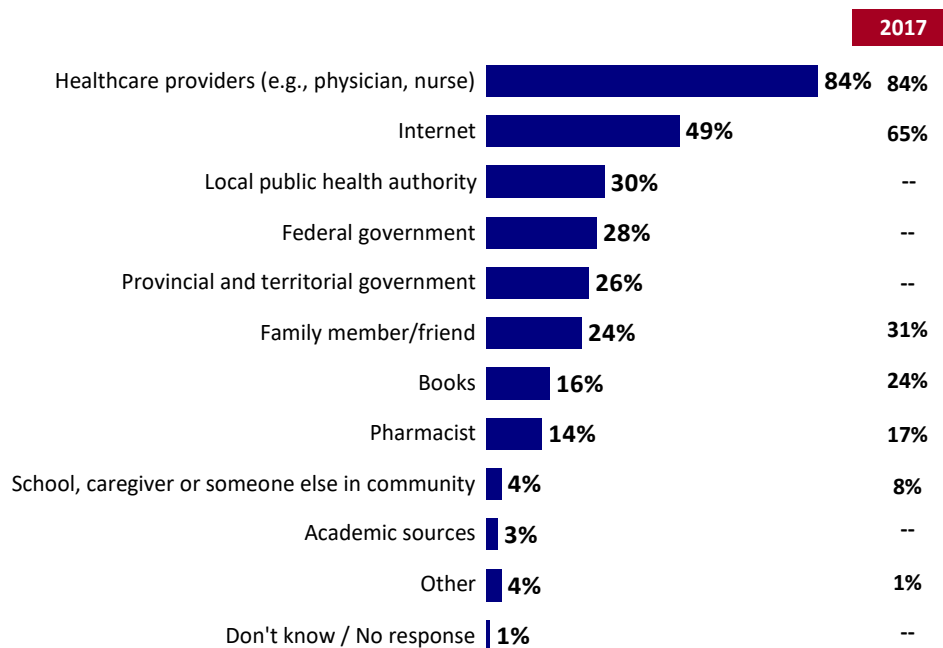
Sources of Information on Childhood Vaccines

The vast majority of respondents who looked for information sought guidance from a healthcare provider (84%). To a lesser extent, the Internet also ranks as a leading source of information, according to 49% who searched for this information online. Local public health authorities are a source used by 30%, and one in four used either the federal government (28%) or provincial sources (26%). Family and friends were also used by 24%. Another 16% relied on books, and 14% discussed it with a pharmacist.

Parents are more likely than expecting parents to have used a healthcare provider (85% compared with 75% of expecting parents) and a provincial source (28% compared with 17%).

Results are in line with 2017, although the proportion using the Internet has dropped from 65% and books have dropped from 24%. Comparison is difficult, however, since the three government sources were added in the 2022 survey.

Chart 12: Sources of information on childhood vaccines



Q8C. Where did you look or who did you talk to about vaccines? (Select all that apply)

Base: Respondents who have searched for information about childhood vaccines (n=858)

- Respondents in Ontario (57%) are more likely than the national average (49%) to look for information on the Internet. Those in the Atlantic provinces are more likely than others to say the federal government (43%), while those in British Columbia and the Territories are likely to cite their local public health authority (51%).

Those who went to the Internet said they relied on a wide array of websites. The most commonly mentioned source was government websites (51% of parents and 44% of expecting parents), followed by parenting or pregnancy websites (36% and 33%). Expecting parents are more likely to have used other sources, including:

- online medical websites (32% compared with 21% of parents);
- online chat rooms and forums (24% of expecting parents compared with only 11% of parents);
- academic websites (16% of expecting parents compared with only 5% of parents); and,
- a general (e.g., Google) search (10% compared with 4% of parents).
- Parents with children under 2 are more likely to have used parenting/pregnancy websites (46%).

Government and online medical websites are more likely to have been used in 2022 compared with 2017 findings.

Table 10: Internet sources

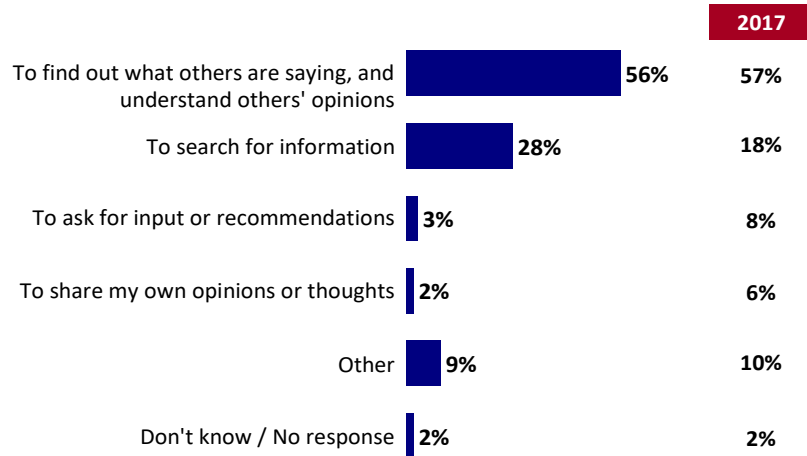
| | Parent 2022 | Pregnant 2022 | Parent 2017 | Pregnant 2017 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|----------------|------------------|
| <i>Where on the Internet did you go? (Select all that apply)</i> <i>Base: Respondents who looked on the Internet for information about childhood vaccines</i> | <i>n=363</i> | <i>n=50</i> | <i>n=358</i> | <i>n=72</i> |
| Government websites ¹⁷ | 51% | 44% | 31% | 24% |
| Online parenting/pregnancy websites | 36% | 33% | 38% | 41% |
| Online medical website | 21% | 32% | 4% | 0% |
| Social media | 13% | 18% | 5% | 25% |
| Online chat rooms/forums/blogs | 11% | 24% | 11% | 15% |
| Web MD | 6% | 8% | 11% | 11% |
| Academic / Scientific sources | 5% | 16% | 9% | 7% |
| Web searches (e.g., Google) | 4% | 10% | 8% | 10% |
| Mayo clinic web site | 5% | 6% | 7% | 8% |
| International health associations | 4% | 2% | 4% | 10% |
| Other | 13% | 2% | 10% | 10% |
| Don't know / No response | 8% | 6% | 22% | 12% |

- The use of medical websites is more concentrated among parents under 35 (30%).
- Parents with a university level of education are more likely to have used Government websites (55%).

¹⁷ 2017 results combine Government of Canada/Health Canada, provincial health sites, municipal health sites and government (general mention).

Among the 55 respondents who indicated using social media to look for information, the primary reason for its use is to find out what others are saying and understand the opinions of others (56%). Also, 28% use it to search for information, which is higher than found in 2017. Caution should be used, however, in interpreting the results due to small sample sizes in 2022 and 2017.

Chart 13: Use of social media

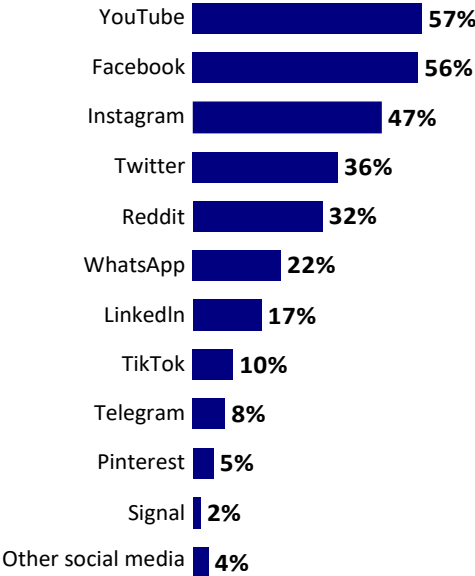


Q8E. Of the social media platforms or sites you use regularly, what do you typically use them for?

Base: Respondents who use social media to look for information about childhood vaccines (n=55)

YouTube (57%) and Facebook (56%) are the main sources used, followed by Instagram (47%) and Twitter (36%), as well as Reddit (32%). In 2017, 94% used Facebook, although only 38 respondents answered this question, and results from both 2022 and 2017 should be treated with caution.

Chart 14: Social media platforms used



Q8DSM. Which social media sources do you use regularly?

Base: Respondents who use social media to look for information about childhood vaccines (n=55)

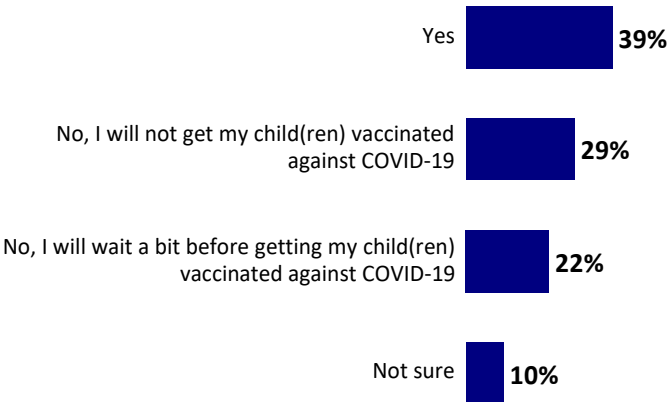
D. COVID-19 VACCINATIONS

Intent Regarding COVID-19 Vaccinations

Children under the Age of Six Months

Four in ten (39%) respondents have plans to have their child(ren) under the age of six months vaccinated against COVID-19. Another 22% will wait a bit before doing so. Three in ten (29%), however, indicated they will not get their children vaccinated against COVID-19, and 10% are not sure.

Chart 15: Intent to vaccinate children under six months against COVID-19



Q2.1. Thinking about when your child(ren) is (are) 6 months of age will you vaccinate them against COVID-19?

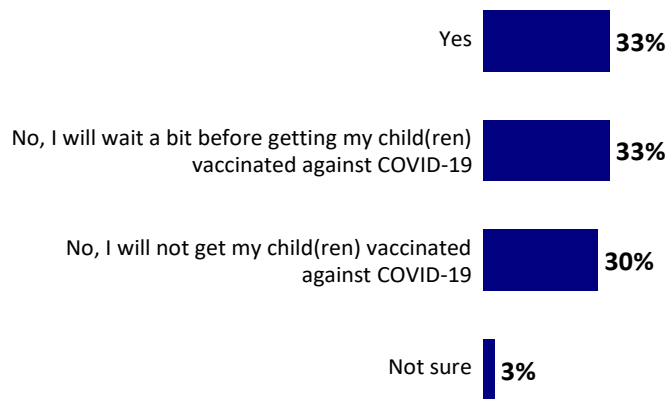
Base: Those who are pregnant and parents with children under the age of 6 months (n=289)

- The intent to wait is highest in Quebec (32%).
- Nearly half (48%) of those who are university-educated say they will have their children vaccinated against COVID-19 compared with those with a college degree (31%) and those with a high school level of education (15%).

Children Six Months to Under 5 Years of age

Parents of children six months up to under five years of age are evenly split about their children's vaccination against COVID-19. Roughly one-third said their children are vaccinated against COVID-19 (33%), another third said they are waiting to get their children vaccinated against COVID-19 (33%), and 30% said they will not be getting their children vaccinated against COVID-19.

Chart 16: Intent to vaccinate children aged 6 months to under 5 years of age against COVID-19



Q2.2: Thinking about your child(ren) between the ages of 6 months and under 5, have they received one or more doses of a COVID-19 vaccine?

Base: Parents of children between 6 months and under 5 years of age (n=729)

- Women are more likely than men to say that they will wait (40% compared to 28%). Men are more likely to say they will not get their children vaccinated against COVID-19 (35% to 24%).
- Parents over 45 are more likely to say their children are vaccinated against COVID-19 (44%) compared with 21% of parents under 35.
- Refusal of the COVID-19 vaccine is more likely among those under 35 (35%) compared with 26% among those over 45.
- University-educated parents are more likely to have vaccinated their child(ren) against COVID-19 (40%) compared with parents with a college diploma (21%) and those with a high school level of education (9%).

Children Between the Ages of Five and 17 Years of Age

For parents with child(ren) aged five or older, 11% report that their child has received three doses of the COVID-19 vaccine. Four in ten (42%) say that their children have had two doses of the COVID-19 vaccine. One in ten parents (10%) report that their children have had one dose, although children between the ages of 13 and 17 are more likely to have had two or three doses, or not to have been vaccinated against COVID-19. One-quarter of parents (26%) report that they will not get their child(ren) vaccinated against COVID-19.

Table 11: Number of doses of the COVID-19 vaccine received among children aged 5 or older

| <i>Thinking about your child(ren) aged 5 or older, how many doses of a COVID-19 vaccine have they received? (Select all that apply)</i> <i>Base: Parents of children aged 5 or older</i> | Total | Children 5-6 years of age | Children 7-12 years of age | Children 13-17 years of age |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------|----------------------------|-----------------------------|
| <i>n=</i> | 662 | 485 | 408 | 124 |
| 3 doses | 11% | 11% | 10% | 13% |
| 2 doses | 42% | 40% | 46% | 46% |
| 1 dose | 10% | 12% | 10% | 6% |
| None, I will wait a bit before getting my child(ren) vaccinated | 9% | 9% | 6% | 5% |
| None, I will not get my child(ren) vaccinated against COVID- | 26% | 26% | 27% | 30% |
| Not sure | 2% | 2% | 1% | 0% |

- COVID-19 vaccine uptake at the level of two doses is highest in Quebec (50%) and the Atlantic provinces (51%) and lowest in British Columbia (33%) and the Prairies (36%).
- Men are more likely to say that their child(ren) will not be vaccinated against COVID-19 (32%) than women (21%).
- Nearly half (49%) of those under the age of 35 said that they would not get their child(ren) vaccinated against COVID-19. Conversely, almost half of the respondents older than 35 said their child(ren) had received two doses (47% of those between 35 to 44; 46% of respondents over 45).
- COVID-19 vaccine refusal is highest among parents with younger children. 38% of parents with children younger than two said they would not get their children vaccinated against COVID-19, which drops to 30% among parents with children aged two to five and 27% with parents with children older than six.

- One in five of those with a university degree said they would refuse to get their child(ren) vaccinated against COVID-19, which rises to 33% for parents with a college diploma and 26% for those with a high school diploma or less.

Among parents who say they will wait a bit longer before vaccinating their child against COVID-19, close to half (46%) feel that more information from clinical trials involving children, with data on safety and effectiveness, would make them more likely to vaccinate their children. More information about the potential long-term side effects of their children being infected with COVID-19 would also positively influence 33% of parents. Another 29% said they would feel more comfortable getting their children vaccinated against COVID-19 when they are older. About one in five would be positively influenced by:

- Assurance from their healthcare provider that the COVID-19 vaccine is safe for children (22%)
- More information on how COVID-19 vaccines work and build immunity in children (21%)
- International health organizations saying the COVID-19 vaccine is safe for children based on findings from testing around the world (21%)
- More information on the benefits of vaccinating children against COVID-19 (16%)

Table 12: Influencing Factors

| | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <i>Which of the following factors would make you more likely to vaccinate your child(ren) against COVID-19? (Select your top 3 choices)</i> | <i>n=375</i> |
| <i>Base: Parents who will wait before vaccinating against COVID-19 or are unsure</i> | |
| More information from clinical trials involving children who have received the COVID-19 vaccine, including data on safety and effectiveness. | 46% |
| More information on the potential long-term effects of my child(ren) being infected with COVID-19. | 33% |
| When my child(ren) is(are) older, I would feel more comfortable with them getting vaccinated. | 29% |
| Assurance from my health professional that the COVID-19 vaccines are safe for my child(ren). | 22% |
| More information on how COVID-19 vaccines work and build immunity in children. | 21% |
| International health organizations say the COVID-19 vaccine is safe for children based on findings from testing around the world. | 21% |
| More information on the benefits of vaccinating children against COVID-19. | 16% |
| Seeing or hearing about friends, family or others I know personally getting their child(ren) vaccinated against COVID-19. | 10% |
| If there is a COVID-19 outbreak in my community. | 9% |
| If there is a COVID-19 outbreak in my child(ren)'s school and/or daycare. | 7% |
| If there was another vaccine type available, since I have concerns about the new mRNA vaccines. | 5% |
| Waiting required amount of time to receive it (eligibility, tested positive for COVID-19 recently/within time frame to wait, waiting for other vaccine schedules to match up/timing of vaccines...) | 3% |
| Accessibility/scheduling (clinic/facility access, flexible timing/schedule to not miss work, facilities specifically for infants/children as not all are qualified to do so) | 3% |
| Other | 6% |
| Don't know | 5% |

- Parents under 35 (39%) are more likely than those 35 or older (29%) to see information on the potential long-term effects of their child being infected with COVID-19 as having a positive influence on their decision to vaccinate their children. Women are more likely (28% compared with 11% of men) to feel that a statement from the WHO about the safety of the COVID-19 vaccine for children would make a difference.
- Those born outside of Canada are more likely (33% compared with 18% among Canadian-born parents) to be positively influenced by more information on how COVID-19 vaccines work and build immunity in children.

Among parents who indicated they will not vaccinate their child against COVID-19, 36% said a main reason for this is because of concerns about possible side effects, 35% do not believe the COVID-19 vaccine is effective, and 34% believe their child is unlikely to get very sick if they do get COVID-19. The same proportion (35%) feel there is not enough information about safety and efficacy from clinical trials involving children who have received the vaccine.

One in four will not vaccinate their child because they believe that natural immunity is better than immunity from a vaccine (28%), they do not believe the COVID-19 vaccine is safe for their children (25%), and that there is not enough testing or research that has been done on children (23%). Another 14% similarly do not trust the newness of the vaccine.

Those expecting a child are much more likely to say there is not enough information from clinical trials involving children (54% compared with 31% among parents).

Table 13: Reasons for not choosing to vaccinate against COVID-19

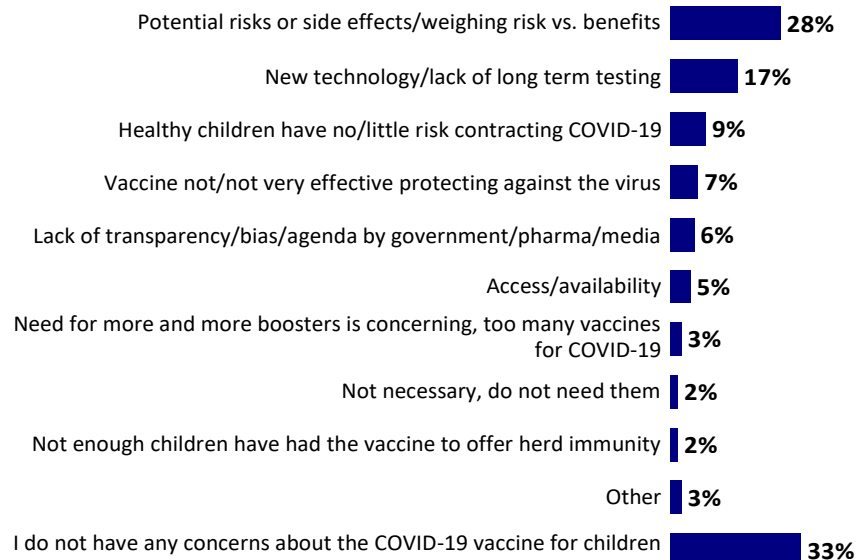
| | Total |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <i>What are the main reasons for not choosing to have the child(ren) vaccinated against COVID-19? (Select your top 3 choices)</i> <i>Base: Parents who will not vaccinate against COVID-19</i> | <i>n=312</i> |
| I have concerns about possible side effects of the COVID-19 vaccine on my child(ren). | 36% |
| There is not enough information from clinical trials involving children who have received the COVID-19 vaccine, including data on safety and effectiveness. | 35% |
| I do not believe the COVID-19 vaccine is effective. | 35% |
| If my child(ren) gets COVID-19, they are unlikely to get very sick. | 34% |
| I think "natural immunity" is better for children than immunity from vaccines. | 28% |
| I do not believe the COVID-19 vaccine is safe for my child(ren). | 25% |
| There is not enough testing or research that has been done on children. | 23% |
| I do not trust the newness of the vaccine. | 14% |
| I have concerns that the COVID-19 vaccine will make my child(ren) sick. | 7% |
| Distrust of information/dishonest claims/agenda/ biased information (from media/pharma/government) | 4% |
| I am wary of vaccinating my child(ren) in general. | 3% |
| My child is very anxious or fearful of vaccinations. | 1% |
| Other | 4% |
| Don't know | 4% |

- Men are more likely than women to say their children are unlikely to get very sick (41%) or have a natural immunity (35%).
- Parents under 35 are more likely than those 35 or older to say there is not enough testing done (34% compared with 17%).
- Parents with a high school level of education are more likely than parents with post-secondary education to say they are concerned about their child getting sick from the vaccine (20%) or are generally wary of vaccinating their child in general (14%).
- Insufficient clinical trials are a concern more often expressed by parents in Ontario (43%), as is the concern about effectiveness (44%) and safety (32%). Parents in BC are also more likely to express concerns about effectiveness (50%). Those in Quebec are more likely than others to believe their child is unlikely to get very sick if they get COVID-19.

Concerns Regarding COVID-19 Vaccination

When asked about pressing concerns about the COVID-19 vaccine for their children, 33% said that they have no concerns. The most frequently mentioned concern was a potential risks or side effects outweighing the benefits (28%). The second most frequently mentioned concern was the lack of long-term testing (17%), while 9% believe that healthy children have little to no risk of contracting COVID-19.

Chart 17: Potential concerns about COVID-19 vaccination



Q4. What is your most pressing concern, if any, about the COVID-19 vaccines for children? (Open response)

Base: All respondents (n=1228)

- Those who said they will not vaccinate their child or will wait before vaccinating their children against COVID-19 are much more likely than other parents to have concerns about the potential risk of side effects (49% of respondents who will not vaccinate and 38% who will wait) compared with parents who have vaccinated their children against COVID-19 (20%).
- These same respondents are also more likely to be concerned about the new technology and lack of long-term testing/other research (between 26% and 31% compared with less than 15% of parents who have already vaccinated their child against COVID-19).

- Lack of transparency is also much more likely to be a pressing concern for this segment of respondents (16% to 22% compared with 5% of parents who have already vaccinated their child against COVID-19).
- Lack of concern about the level of risk in contracting COVID-19 is also more likely among this segment of respondents 12% to 13% compared with 6% of parents who have already vaccinated their child against COVID-19).
- Respondents under 35 are more likely to cite the potential risks than those older than 35 (33% compared with 26%).
- Those with a university degree are less likely to note concern over potential risks or side effects (24%) compared with 35% of college-educated and 34% of those with high school.
- Individuals born outside of Canada are more likely to be concerned with potential risks or side effects (35% compared with 27% of other parents).

Delays in Regular Vaccinations Resulting from the Pandemic

One in five (19%) parents of children aged one or older report that one or more of their child(ren)'s regular vaccinations were missed as a result of the COVID-19 pandemic. This is higher among children six years of age or older (25%).

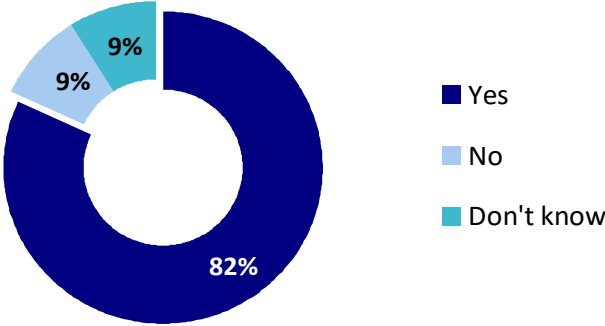
Table 14: Incidence of delays

| <i>Have any of your child(ren)'s regular childhood vaccinations been missed/delayed as a result of the COVID-19 pandemic?</i> | Total | Under 2 years of age | 2 to 3 years of age | 4 to 5 years of age | 6 years of age or older |
|-------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|----------------------------|----------------------------|--------------------------------|
| <i>Base: Parents of children aged 1 or older 0</i> | <i>n=1061</i> | <i>n=344</i> | <i>n=390</i> | <i>n=421</i> | <i>n=570</i> |
| Yes | 19% | 17% | 20% | 22% | 25% |
| No | 80% | 83% | 80% | 76% | 73% |
| Don't know | 2% | 1% | 1% | 2% | 2% |

- Parents who are between 35 and 44 are more likely to have had their child(ren)'s regular vaccinations missed or delayed (20%) compared with those under 35 (12%).

Among parents who reported a delay or missed vaccination as a result of the pandemic, 82% said they intend to catch up on their child(ren)'s regular vaccinations. Another 9% said they would not have their child(ren) catch up, and another 9% said they were unsure.

Chart 18: Catching up on delayed regular vaccinations



Q6. Do you intend to catch up on your child(ren)'s missed/delayed regular childhood vaccinations?

Base: Parents reporting delayed or missed vaccinations among children 1 or older (n=195)

- Over one in five (21%) parents in the Prairies said they do not intend to have their child(ren) catch up on their missed vaccinations, compared with 7% of those in British Columbia and Ontario.
- 75% of parents with a college level of education and 90% of those with a university education indicated they would reschedule vaccinations compared with 55% among those with a high school level of education.

Although a very small sample, among the 18 individuals who do not intend to catch up on missed or delayed vaccinations, the three most frequently cited reasons for not getting their children vaccinated are:

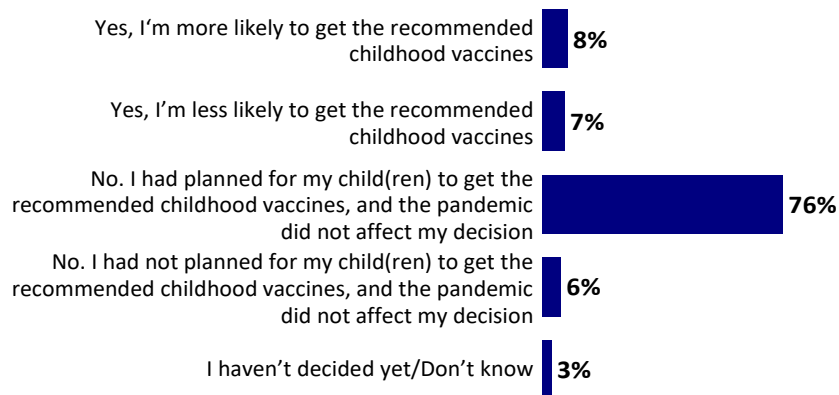
- Concerns about the long-term side effects of vaccines
- Concerns about the potential side effects of vaccines
- Distrust in the accuracy of the information

Impact of COVID-19 on Obtaining Recommended Childhood Vaccinations

The COVID-19 pandemic has had a relatively minor impact on parents' intentions to have their child(ren) receive recommended vaccines. While 7% are now less likely to have their children vaccinated as a result of the pandemic, 8% are more likely to do so. The pandemic did not impact vaccine intentions for three-quarters of respondents (76%), while 6% said they do not plan to get their children vaccinated and the pandemic did not affect their decision.

Parents are more likely to report no change in their intent to obtain recommended vaccinations for their children (79%), compared to expecting parents (65%).

Chart 19: Impact of the COVID-19 pandemic on plans for recommended childhood vaccinations



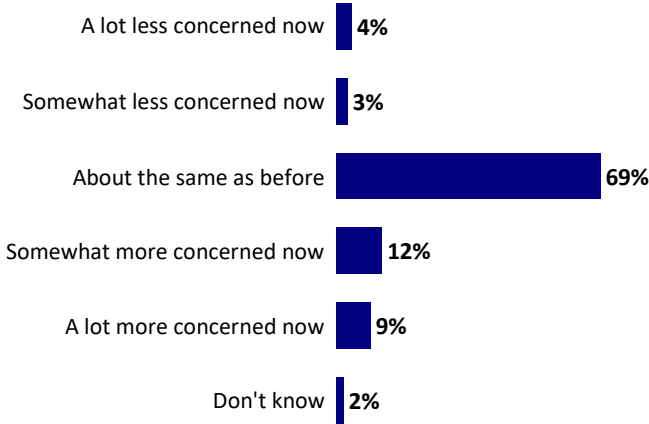
Q8: Has the COVID-19 pandemic affected your intentions for your children to receive their regular recommended childhood vaccinations?

Base: All respondents (n=1228)

- Those with a high school level of education are less likely to report no impact from the pandemic on their decision to get their children vaccinated (64%). This is compared with 74% among those with a college diploma and 80% among those with a university degree.

Although 7% of respondents indicated they are less concerned about regular recommended childhood vaccinations compared to before the pandemic - a lot less concerned (4%) or somewhat less concerned (3%) - 21% indicated they are more concerned - somewhat more concerned (12%) or a lot more concerned (9%). Just over two in three respondents (69%) said their concern is about the same as before the pandemic started.

Chart 20: Impact of the COVID-19 pandemic on concerns about recommend childhood vaccinations



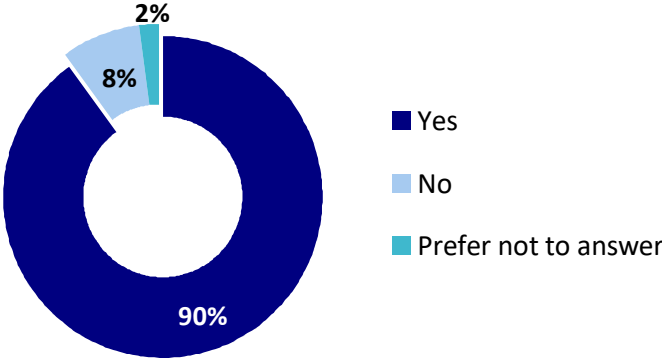
Q9: What impact, if any, has the recent COVID-19 pandemic had on your level of concern regarding regular recommended childhood vaccinations?

Base: All respondents (n=1228)

- Increased concern about vaccines is highest among respondents in the Prairies (27%) and lowest in Quebec (15%).

Nine in ten respondents (90%) are planning to, are currently or have previously breastfed or chest fed their children or fed them with human milk.

Chart 21: Use of Breastfeeding



Q2A. Are you planning, are you currently or did you previously breastfeed or chestfeed your child(ren) or feed them with human milk?

Base: All respondents (n=1228)

- There are few differences across demographic segments. However, those with a university level of education are more likely to say this was or is their intention (92%) compared with those with a high school level of education (79%).

APPENDICES

A. METHODOLOGICAL DETAILS

The following table presents a sample profile for the survey of 1228 parents and expecting parents with a comparison to the 2017 sample of 1029. This includes demographic characteristics related to employment, education, income, cultural attributes, language, age and region. Overall, the 2022 and 2017 samples look very similar across these sample characteristics, although the 2022 sample appears somewhat more educated and affluent, although household income would be expected to increase over the six years. The 2022 sample is also closer to the population for gender.

Table 15: Demographic Table

| | Total 2022 | Total 2017 |
|--------------------------------------------------|-----------------------|-----------------------|
| <i>Province (unweighted)</i> | <i>n=1228</i> | <i>n=1029</i> |
| Atlantic provinces | 7% | 9% |
| Quebec | 27% | 24% |
| Ontario | 35% | 34% |
| Prairies | 19% | 22% |
| British Columbia and Territories | 13% | 11% |
| <i>Gender</i> | <i>n=1228</i> | <i>n=1029</i> |
| Male | 44% | 38% |
| Female | 55% | 62% |
| <i>Number of children in home (parents only)</i> | <i>n=1228</i> | <i>n=833</i> |
| 1 | 31% | 35% |
| 2 | 41% | 38% |
| 3 | 19% | 14% |
| 4 | 6% | 5% |
| 5 or more | 3% | 3% |

| | Total 2022 | Total 2017 |
|--------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| <i>What are the ages of children in the home? (parents only)</i> | <i>n=1061</i> | <i>n=833</i> |
| Under 12 months | 18% | 14% |
| 1 | 15% | 17% |
| 2 | 19% | 20% |
| 3 | 19% | 21% |
| 4 | 21% | 23% |
| 5 | 20% | 23% |
| 6 | 27% | 29% |
| 7 or older | 49% | 29% |
| <i>Are you pregnant now or are you intending to become pregnant in the next 12 months (expecting parents only)</i> | <i>n=193</i> | <i>n=201</i> |
| Currently pregnant | 21% | 27% |
| Intending to be pregnant | 79% | 73% |
| <i>Is this your first pregnancy? (currently pregnant women)</i> | <i>n=41</i> | <i>n=56</i> |
| Yes | 76% | 61% |
| No | 24% | 39% |
| <i>What trimester are you currently in? (pregnant women)</i> | <i>n=41</i> | <i>n=56</i> |
| First (weeks 1-12) | 34% | 27% |
| Second (weeks 13-27) | 34% | 40% |
| Third (weeks 28 to birth) | 32% | 34% |
| <i>Who in your family makes/will make the decisions about healthcare for the child?</i> | <i>n=1228</i> | <i>n=1029</i> |
| I do/will | 15% | 17% |
| My spouse or partner | 1% | 1% |
| Both I and my spouse or partner do (jointly) | 84% | 82% |
| <i>Age</i> | <i>n=1228</i> | <i>n=1029</i> |
| Under 35 | 31% | 41% |
| 35 to 44 | 63% | 51% |
| 45 or older | 5% | 8% |

| | Total 2022 | Total 2017 |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| <i>Which category best describes your current employment status? Are you...?</i> | <i>n=1228</i> | <i>n=1029</i> |
| Working full-time (35 or more hours per week) | 72% | 62% |
| Working part-time (less than 35 hours per week) | 6% | 9% |
| Self-employed | 8% | 9% |
| Student attending full time school (not working) | 2% | 3% |
| Unemployed, but looking for work | 2% | 3% |
| Not in the workforce (e.g. unemployed, but not looking for work, a full-time homemaker or parent) | 8% | 10% |
| Parental/maternity leave | -- | 2% |
| Other | -- | 1% |
| <i>What is the highest level of formal education that you have completed to date?</i> | <i>n=1228</i> | <i>n=1029</i> |
| Grade 8 or less | 0% | 0% |
| Some high school | 1% | 2% |
| High school diploma or equivalent | 7% | 9% |
| Registered Apprenticeship or other trades certificate or diploma | 5% | 5% |
| College, CEGEP or other non-university certificate or diploma | 20% | 22% |
| University certificate or diploma below bachelors level | 6% | 5% |
| Bachelor's degree | 31% | 33% |
| Post graduate degree above bachelor's level | 30% | 23% |
| <i>What is your marital status</i> | <i>n=1228</i> | <i>n=1029</i> |
| Married or partnered/common law | 90% | 91% |
| Single | 6% | 5% |
| Divorced or separated | 3% | 3% |
| Widowed | 0% | 1% |
| <i>Which of the following categories best describes your total household income, for all persons in your household, before taxes?</i> | <i>n=1228</i> | <i>n=1029</i> |
| Under \$20,000 | 2% | 3% |
| \$20,000 to just under \$40,000 | 4% | 7% |
| \$40,000 to just under \$60,000 | 7% | 10% |
| \$60,000 to just under \$80,000 | 9% | 12% |

| | Total 2022 | Total 2017 |
|--------------------------------------------------|-----------------------|-----------------------|
| \$80,000 to just under \$100,000 | 12% | 13% |
| \$100,000 to just under \$120,000 | 14% | 13% |
| \$120,000 to just under \$150,000 | 15% | 10% |
| \$150,000 and above | 34% | 23% |
| Don't know / No response | 5% | 8% |
| <i>Were you born in Canada?</i> | <i>n=1228</i> | <i>n=1029</i> |
| Yes | 81% | 82% |
| No | 18% | 18% |
| <i>How many years have you lived in Canada?</i> | <i>n=221</i> | <i>n=175</i> |
| Less than 5 years | 21% | 21% |
| 5-9 years | 21% | 22% |
| 10-19 years | 26% | 27% |
| 20-29 years | 17% | 9% |
| 30 or more years | 14% | 20% |
| Don't know / No response | 0% | 1% |
| <i>What best describes your ethnic heritage?</i> | <i>n=1228</i> | <i>n=1029</i> |
| White/European | 78% | 83% |
| Black or African American | 5% | 5% |
| South Asian | 4% | 4% |
| Indigenous (First Nations, Inuk/Inuit, Métis) | 3% | 3% |
| East Asian | 2% | 3% |
| Hispanic, Latino, Spanish | 2% | 2% |
| Middle Eastern or North African | 2% | 2% |
| Other | 1% | 1% |
| Don't know / No response | 3% | 2% |

As in 2017, the sample was weighted to the population based on latest Census figures for region of the country. The 2017 and 2022 samples are very similar although the 2022 sample includes a higher proportion of men, and parents who are 35 to 44, with children in the home who are 7 or older (along with children 0-6). There is also a higher proportion who are employed full-time, and report household incomes of \$150,000 or greater and post-graduation degrees. Overall, relative to the population of all adults 18 years of age or older, the 2017 and 2022 samples include higher proportions with post-secondary education.

B. SURVEY QUESTIONNAIRE

WINTRO

Online

Thank you for agreeing to complete this survey. All your responses will be kept strictly confidential. A few reminders before beginning. Si vous préférez répondre au sondage en français, veuillez cliquer sur français.

Please rest assured that your answers are completely confidential (this means that no individual will be associated with the survey's results - rather, they will be rolled up into large categories to protect the confidentiality of each respondent) and that this survey is voluntary. It is being directed by EKOS Research, and administered according to the requirements of the *Privacy Act*. To view our privacy policy, [click here](#). This survey is registered with the Canadian Research Insights Council's (CRIC) Research Verification Service. [Click here](#) if you wish to verify its authenticity (project code 20220927-EK473).

INSTRUCTIONS

On each screen, after selecting your answer, click on the "Continue" or "Back" buttons at the bottom of the screen to move forward or backwards in the questionnaire.

If you leave the survey before completing it, you can return to the survey URL later, and you will be returned to the page where you left off. Your answers up to that point in the survey will be saved.

If you have any questions about how to complete the survey, please call EKOS at 1-866-211-8881 or email us at online@ekos.com. Thank you in advance for your participation.

PINTRO

Phone

Good morning/afternoon/evening, Bonjour, I'm calling from EKOS Research Associates. May I speak with _____?

We are conducting a survey with parents of young children and individuals who are pregnant or planning to become pregnant within the next year. The survey collects opinions about where and how you access health information and information related to children's vaccination(s). Please be assured that we are not selling or soliciting anything. Would you prefer to be interviewed in English or French?/Préférez-vous répondre en français ou en anglais?

Your participation in the survey is completely voluntary and your responses will be kept entirely confidential. It is being administered according to the requirements of the *Privacy Act*. Results will not be reported on an individual basis, but rolled into groups of 20 or more to preserve confidentiality. Your decision on whether or not to participate will not affect any dealings you may have with the Government of Canada. The survey is registered with Marketing Research and Intelligence Association's (MRIA) Research Registration System (IF ASKED: Visit <https://canadianresearchinsightscouncil.ca/rvs/home/?lang=en> if you wish to verify its authenticity (project code 20220927-EK473)).

INTRORF1

Phone

Would you be willing to complete the survey online as soon as possible?

IF YES: Please provide us with your email address.

IF NO: THANK AND TERMINATE

| | |
|------------------------|---|
| Yes (record email) : | 1 |
| No THANK AND TERMINATE | 2 |

INTRORF2

Phone

\ An invitation email has been sent, it should be received shortly. Please complete the survey as soon as possible. Thank you for your time and cooperation.

MUST ALWAYS CLICK "CONTINUE" TO RETURN TO INTRODUCTION 1

PRIV

Phone

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

QGENDR

What is your gender?

| | |
|--------------------------|----|
| Male | 1 |
| Female | 2 |
| Another gender | 3 |
| Don't know / No response | 99 |

QCHILD

Are you the parent or legal guardian of one or more children? If so, how many?

| | |
|-----------------------------------------|----|
| Yes (please enter number of children) : | 77 |
| No | 98 |
| No response | 99 |

QCHILDA [1,9]

<[AQCHILD = 1]How old is the child[ELSE]What are the ages of the children> in your home?

| | |
|-----------------------|----|
| Select all that apply | |
| Under 6 months | 10 |
| 6 12 months | 11 |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7-12 | 7 |

| | |
|-------------|----|
| 13-17 | 8 |
| No response | 99 |

PRG1

QCHILD = No (not a parent) or QCHILDA = all child 7 or older

<[QGENDR = 2,99]Are you, or is[ELSE]Is> there someone in your household who is pregnant or intending to become pregnant within the next year?

| | |
|-------------------------------------------------------|----|
| QGENDR = 2,99 | |
| Yes, I am | 1 |
| Yes, someone else in the household | 2 |
| No <[PHONE](THANK & TERMINATE)> | 3 |
| Don't know / No response <[PHONE](THANK & TERMINATE)> | 99 |

PRG2

Would it be possible to speak with/refer the survey to the person in your household who is currently pregnant or intending to become pregnant in the next year?

| | |
|-----------------------------------|---|
| Return to the start of the survey | 1 |
|-----------------------------------|---|

PRG3A

Are you pregnant now or are you intending to become pregnant in the next 12 months?

| | |
|--------------------------|---|
| Currently pregnant | 1 |
| Intending to be pregnant | 2 |

PRG3B

Is this your first pregnancy?

| | |
|--------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know / No response | 99 |

PRG3C

What trimester are you currently in?

| | |
|---------------------------|----|
| First (weeks 1-12) | 1 |
| Second (weeks 13-27) | 2 |
| Third (weeks 28 to birth) | 3 |
| Don't know / No response | 99 |

RESPTYPE

Calculation

| | |
|-------------------------------------|---|
| Parent of child with kid 6 or under | 1 |
| Pregnant person | 2 |
| Unknown | 9 |

QDECIDE

Who in your family <[RESPTYPE = 1]makes[RESPTYPE = 2]will make> the decisions about healthcare for the child?

| | |
|-----------------------------------------------------------------------------------------------|----|
| <[PHONE]You <[RESPTYPE = 1]do[RESPTYPE = 2]will>[ELSE]! <[RESPTYPE = 1]do[RESPTYPE = 2]will>> | 1 |
| <[PHONE]Your[ELSE]My> spouse or partner | 2 |
| <[PHONE]Your[ELSE]My> spouse or partner and <[PHONE]you[ELSE]I> (jointly) | 3 |
| Other (please specify) | 77 |

QDECIDEB

This survey is focused on information, concerns and decision-making about vaccines for children. Ideally, the survey should be completed by the person in the household who is primarily or jointly responsible for healthcare decisions for children in the household. Would it be possible for this person to complete the survey? <[ONLINE]You can forward the original invitation email to that person.

>

| | |
|------------------------------------------------------------------------------------------------------|---|
| Continue with primary decision-maker <[PHONE](ask if prefer to go back to introduction or continue)> | 1 |
| Return to the introduction | 2 |
| PHONE | |
| Make appointment for time to interview primary decision-maker | 7 |
| Cannot continue with primary decision-maker | 9 |

QA1 [1,13]

Thinking about the last time you had a question related to your health or your child(ren)'s health, where did you look for information and/or who did you talk to?

| | |
|-----------------------------------------------------------------------------------------------------------|----|
| <[PHONE]READ LIST AND TAKE ALL THAT APPLY> | |
| Healthcare provider (e.g., physician, nurse) | 1 |
| Pharmacist | 2 |
| School, caregiver or someone else in community | 3 |
| Family member/friend <[PHONE](ask if one of above - code above if they are professional in one of above)> | 4 |
| Internet | 5 |
| Printed resources (e.g. pamphlet, book, magazine, etc.) | 6 |
| Religious leader | 7 |
| Federal government (e.g. Government of Canada website, telephone, etc.) | 8 |
| Provincial and territorial government | 9 |
| Local public health authority | 10 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

QA2 [1,7]

Where on the Internet would you usually go to look for information related to your health or your child(ren)'s health?

<[PHONE]READ LIST AND TAKE ALL THAT APPLY>

| | |
|-------------------------------------|----|
| Online medical website (which one?) | 76 |
| Online parenting/pregnancy websites | 1 |
| Social media | 2 |
| Online chatrooms/forums/blogs | 3 |
| Government websites | 4 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

QA2A

When you search for health information, do you specifically look for Canadian sources of information?

| | |
|--------------------------|---|
| Yes | 1 |
| No | 2 |
| Don't know / No response | 9 |

QA2B [1,5]

When you use Google or another search engine when searching for health information, which links do you select?

<[PHONE]READ LIST AND TAKE ALL THAT APPLY>

| | |
|-------------------------------------------------------------------------------------|----|
| Top ranked results (those that appear as the first choices) | 1 |
| Familiar sources (e.g., parenting sites/networks, known brands, news outlets, etc.) | 2 |
| Medical associations | 3 |
| Government organizations | 4 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

ROTQA3

Half-sample calculation

| | |
|---|---|
| 1 | 1 |
| 2 | 2 |

QA3A

<[PHONE]On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how[ELSE]How> much trust do you put in each of the following to give you credible health information?

| | |
|--------------------------------------------|----|
| Friends and family | |
| No trust at all 1 | 1 |
| 2 | 2 |
| Moderate trust 3 | 3 |
| 4 | 4 |
| Complete trust 5 | 5 |
| Not applicable (Would not use that source) | 98 |
| Don't know/ No response | 99 |

QA3B

<[PHONE]On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how[ELSE]How> much trust do you put in each of the following to give you credible health information?

| | |
|----------------------------------------------------|----|
| Healthcare professional such as doctors and nurses | |
| No trust at all 1 | 1 |
| 2 | 2 |
| Moderate trust 3 | 3 |
| 4 | 4 |
| Complete trust 5 | 5 |
| Not applicable (Would not use that source) | 98 |
| Don't know/ No response | 99 |

QA3C

<[PHONE]On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how[ELSE]How> much trust do you put in each of the following to give you credible health information?

| | |
|----------------------------------------------------|----|
| Health Canada / the Public Health Agency of Canada | |
| No trust at all 1 | 1 |
| 2 | 2 |
| Moderate trust 3 | 3 |
| 4 | 4 |
| Complete trust 5 | 5 |
| Not applicable (Would not use that source) | 98 |
| Don't know/ No response | 99 |

QA3E

<[PHONE]On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how[ELSE]How> much trust do you put in each of the following to give you credible health information?

| | |
|---------------------------------------------|----|
| The media (television, radio and newspaper) | |
| No trust at all 1 | 1 |
| 2 | 2 |
| Moderate trust 3 | 3 |
| 4 | 4 |
| Complete trust 5 | 5 |
| Not applicable (Would not use that source) | 98 |
| Don't know/ No response | 99 |

QA3F

<[PHONE]On a scale from 1 to 5 where 1 is no trust at all, 5 is complete trust, and the midpoint 3 is moderate trust, how[ELSE]How> much trust do you put in each of the following to give you credible health information?

| | |
|--------------------------------------------|----|
| Social media | |
| No trust at all 1 | 1 |
| 2 | 2 |
| Moderate trust 3 | 3 |
| 4 | 4 |
| Complete trust 5 | 5 |
| Not applicable (Would not use that source) | 98 |
| Don't know/ No response | 99 |

Q2

If you have to place yourself in only **one category**, which of the following statements **most** accurately reflects your views on vaccines for your child(ren)?

| | |
|----------------------------------------------------------------------|----|
| <[PHONE]READ LIST> | |
| I refuse all recommended vaccines | 11 |
| I refuse or delay getting some vaccines | 12 |
| I accept all recommended vaccines but have many doubts and concerns | 13 |
| I accept all recommended vaccines but have minor doubts and concerns | 14 |
| I accept all recommended vaccines and have no doubts or concerns | 15 |
| Don't know / No response | 99 |

Q3A

<[PHONE]On a scale of 1 to 5 where 1 is not at all, 5 is very, and the midpoint 3 is moderately, how[ELSE]How> much or how little would you say that routine childhood vaccines are:

| | |
|-----------------------------------------------------|----|
| Effective in preventing potentially deadly diseases | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Very 5 | 5 |
| Don't know/ No response | 99 |

Q3B

<[PHONE]On a scale of 1 to 5 where 1 is not at all, 5 is very, and the midpoint 3 is moderately, how[ELSE]How> much or how little would you say that routine childhood vaccines are:

| | |
|-----------------------------------------------------------------|----|
| Safe, that is, unlikely to cause more than minimal side effects | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Very 5 | 5 |
| Don't know/ No response | 99 |

Q5C [1,17]

What are the main reasons you are concerned about vaccines for your child(ren)?

<[PHONE]DO NOT READ, TAKE ALL THAT APPLY>

| | |
|-------------------------------------------------------------|----|
| I don't believe in vaccines for personal reasons | 1 |
| I don't believe in vaccines for religious reasons | 2 |
| Vaccines cause side effects | 3 |
| Vaccines cause diseases they are supposed to prevent | 14 |
| Vaccines can cause allergic reactions | 11 |
| Vaccines are not effective at preventing disease | 4 |
| Vaccines are not necessary the body can take care of itself | 5 |
| Vaccines have not been tested enough | 6 |
| I don't trust the pharmaceutical industry | 7 |
| I don't trust the government | 8 |
| I think too many vaccines are needed | 9 |
| I think vaccines contain toxic ingredients | 10 |
| I think too many vaccines are offered in a short period | 12 |
| I believe vaccines may cause autism | 13 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

CHILDCALC

Calculation

| | |
|-----------------------------|---|
| More than one child aged <7 | 1 |
| One or no child aged <7 | 2 |

Q7

When did you start thinking about your <[CHILDCALC = 1]first child[ELSE]child>'s vaccination needs?

<[PHONE]PROMPT AS NEEDED>

| | |
|-------------------------------------------------------------------|----|
| Before the pregnancy | 1 |
| During the pregnancy | 2 |
| RESPTYPE = 1 or PRG3C = 2,3 | |
| After prenatal classes | 3 |
| RESPTYPE = 1 | |
| Soon after my child's birth | 4 |
| RESPTYPE = 1 | |
| Over the course of the first few check ups with my child's doctor | 5 |
| RESPTYPE = 1 | |
| Over the past few years | 6 |
| When it was time to follow the recommended immunization schedule | 8 |
| Have not yet really given it much thought | 7 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q8

Have you ever looked for information about childhood vaccines?

| | |
|--------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't recall | 3 |
| Don't know / No response | 99 |

Q8B

When did you start looking for information about childhood vaccines?

<[PHONE]PROMPT AS NEEDED>

| | |
|-------------------------------------------------------------------|----|
| Before the pregnancy | 1 |
| During the pregnancy generally | 2 |
| After prenatal classes | 3 |
| RESPTYPE = 1 | |
| Soon after my child's birth | 4 |
| RESPTYPE = 1 | |
| Over the course of the first few check ups with my child's doctor | 5 |
| When it was time to follow the recommended immunization schedule | 7 |
| In the past few years | 8 |
| Have not yet really given it much thought | 6 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q8C [1,12]

Where did you look or who did you talk to about vaccines?

| | |
|-------------------------------------------------------------------------------------------------------------------|----|
| <[PHONE]READ LIST AND TAKE ALL THAT APPLY> | |
| Healthcare provider (e.g. physician, nurse) | 1 |
| Pharmacist | 2 |
| School, caregiver or someone else in community | 3 |
| Family member/friend <[PHONE]> <i>(ask if one of above - code above if they are professional in one of above)</i> | 4 |
| Internet | 5 |
| Books | 6 |
| Federal government (e.g. Government of Canada website, telephone, etc.) | 7 |
| Provincial and territorial government | 8 |
| Local public health authority | 9 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q8D [1,10]

Where on the Internet did you go?

| | |
|--------------------------------------------|----|
| <[PHONE]READ LIST AND TAKE ALL THAT APPLY> | |
| Online medical website (which one?) | 76 |
| Online parenting/pregnancy websites | 2 |
| Social media | 50 |
| Online chatrooms/forums/blogs | 4 |
| Government websites | 5 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q8DSM [1,14]

Which social media sources do you use regularly?

| | |
|-------------------------------------|----|
| <[PHONE]PROMPT AS NEEDED> | |
| Facebook | 51 |
| Twitter | 52 |
| Instagram | 53 |
| Pinterest | 54 |
| LinkedIn | 55 |
| YouTube | 56 |
| TikTok | 57 |
| WhatsApp | 58 |
| Reddit | 59 |
| Telegram | 60 |
| Signal | 61 |
| Other social media (please specify) | 98 |
| Don't know / No response | 99 |

Q8E

Of the social media platforms or sites you use regularly, what do you typically use them for?

<[PHONE]READ LIST>

| | |
|---------------------------------------------------------------------|----|
| To find out what others are saying, and understand others' opinions | 1 |
| To search for information | 2 |
| To share my own opinions or thoughts | 3 |
| To ask for input or recommendations | 4 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q9

Do you feel you have enough information or resources available to make informed decisions about vaccines for your child?

| | |
|--------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know / No response | 99 |

Q9B [1,11]

Why do you feel you don't have enough information to make an informed choice?

<[PHONE]DO NOT READ LIST> Select all that apply

| | |
|-------------------------------------------------------------------------|----|
| When I search for the information, it just doesn't seem to be out there | 1 |
| I don't know where to look for the right information | 2 |
| I never really looked very hard for information | 3 |
| I don't have time to look before the appointments | 4 |
| The information is not from a credible, trustworthy source | 5 |
| The information does not cover what I want to know | 6 |
| The information is too hard to understand, confusing, or too technical | 7 |
| There is too much information out there / it is overwhelming | 8 |
| There is conflicting information about vaccines | 10 |
| The information I find is not in my language | 9 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

Q9B2

<[PHONE]On a scale of 1 to 5 where 1 is very easy, 5 is very difficult and the midpoint 3 is neither easy nor difficult, how[ELSE]How> easy or difficult has it been to make decisions about vaccinating your child?

| | |
|---------------------------------------|----|
| Very easy decisions 1 | 1 |
| Easy decisions 2 | 2 |
| Neither easy nor difficult 3 | 3 |
| Difficult decisions 4 | 4 |
| Very difficult decisions 5 | 5 |
| Have not really thought much about it | 98 |
| Don't know / No response | 99 |

Q9B3 [1,3]

Why do you say that?

| | |
|---------------------------------------------------|----|
| Please specify (try to be as specific as you can) | 77 |
| Don't know / No response | 99 |

ROTQ10

Half-sample calculation

| | |
|---|---|
| 1 | 1 |
| 2 | 2 |

Q9CA

What information or resources would you like to have available? <[PHONE]>I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>Understanding the risks of my child contracting the diseases that childhood vaccines protect against

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CB

What information or resources would you like to have available? <[PHONE]>I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>Understanding how severe the diseases and/or their symptoms could be

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CC

What information or resources would you like to have available? <[PHONE]>I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>Understanding the risks of side effects of the vaccine, and the likelihood of my child getting them

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CD

What information or resources would you like to have available? <[PHONE]>I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>Vaccination schedule: Which vaccine to get and when

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CH

What information or resources would you like to have available? <[PHONE]I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>What ingredients are in vaccines

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CI

What information or resources would you like to have available? <[PHONE]I'm going to read through the list and ask you to give me a "yes" or "no" for each one.

>How vaccines are tested

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q9CJ [0,1]

Other (please specify)

| | |
|-------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know/ No response | 99 |

Q10

Half sample

If you had one question that you would like to have answered about vaccines for your child, what would that question be?

<[PHONE]READ LIST>

Information on side effects from getting the vaccine (e.g. fever, muscle aches, etc.)1

Statistics and information on incidents related to a vaccine (e.g. How many people are more negatively effected?) 2

Explanations/understanding more the scheduling/timing of vaccines (e.g. Why does it have to be those ages? Is it okay to get all those vaccines at the same time? Why so many of them during a short period of time?) 3

Statistics and information on efficacy of a vaccine. (e.g. How much does it prevent the illness?) 4

The need for the vaccine. (e.g. How necessary is it? What are the consequences if you choose not to vaccinate your child?) 5

More information on the ingredients of a vaccine. (e.g. What is in them? Why use certain ingredients/amounts of?) 6

Other (specify) 77

I don't have any questions / No response 99

PREQ12

<[PHONE]On a scale of 1 to 5 where 1 is not at all, 5 is completely, and the midpoint 3 is moderately, how[ELSE]How> much do you trust each of the following remedies for preventing or treating an illness in children?

Q12A

| | |
|-------------------------|----|
| Antibiotics | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q12B

| | |
|-------------------------------------------------------------------------------------------|----|
| Homeopathic remedies (oral droplets to relieve ailments such as teething and colic, etc.) | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q12C

| | |
|--------------------------|----|
| Vitamins and supplements | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q12D

| | |
|------------------------------------------------------|----|
| Over the counter medications (pain medication, etc.) | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q12E

| | |
|-----------------------------------------------------------------------|----|
| Holistic medicine (massage therapy, chiropractice, acupuncture, etc.) | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q12F

| | |
|------------------------------------------|----|
| Healthy lifestyle (diet, exercise, etc.) | |
| Not at all 1 | 1 |
| 2 | 2 |
| Moderately 3 | 3 |
| 4 | 4 |
| Completely 5 | 5 |
| Don't know/ No response | 99 |

Q2_A

Are you planning, are you currently or did you previously breastfeed or chestfeed your child(ren) or feed them with human milk?

| | |
|----------------------|---|
| Yes | 1 |
| No | 2 |
| Prefer not to answer | 9 |

ROTQ13***Half-sample calculation***

| | |
|---|---|
| 1 | 1 |
| 2 | 2 |

Q13 [1,3]***Half sample***

Do you recall a single message about childhood vaccines that stood out for you, and that shaped your thinking?

| | |
|--------------------------|----|
| Yes (what was it?) | 77 |
| No | 2 |
| Don't know / No response | 99 |

Q14 [1,2]

If you were feeling uncomfortable or worried about the decision to vaccinate your child, who would you turn to, other than your spouse/partner?

| | |
|-------------------------------|----|
| Select up to 2 | |
| Another parent | 1 |
| A family member | 2 |
| A healthcare provider | 3 |
| Government | 4 |
| Teachers or caregivers | 5 |
| Someone else (please specify) | 77 |
| Don't know / No response | 99 |

PREQ15

If you were to decide today on vaccines for your child, which of the following statements would influence your decision? <[PHONE](read list) Would this statement make a difference in your decision or make no difference? (If difference:) Would it make you more inclined to vaccinate or less inclined?>

Q15A

Getting my child vaccinated also protects those children who are too young or too sick to be vaccinated themselves.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15B

Vaccines give infants and young children the best protection from more than a dozen serious diseases.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15C

The recommended immunization schedule is designed to protect infants and children by providing immunity early in life, before they are exposed to life-threatening diseases.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15D

Serious reactions from vaccines are rare.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15E

Scientific studies and reviews show no relationship between vaccines and autism.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15F

Vaccines are very safe and undergo comprehensive clinical trials and government review process before being approved for use in Canada.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15G

There is no cure for most vaccine preventable diseases. Vaccination is our best protection.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15H

Hearing your doctor say "I strongly recommend this vaccine. I did it for my own family and kids".

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15J

The head of every pediatric hospital in Canada recommends routine vaccination for children.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q15K

The Public Health Agency of Canada recommends routine vaccination for children.

| | |
|--------------------------|----|
| Less likely to vaccinate | 1 |
| Would make no difference | 3 |
| More likely to vaccinate | 5 |
| Don't know/ No response | 99 |

Q11

Thinking about the last year or two, would you say you are more concerned, less concerned, or feel about the same about vaccines now as you did then?

<[PHONE]PROMPT AS NEEDED>

| | |
|------------------------------------------|----|
| A lot less concerned now | 1 |
| Somewhat less concerned now | 2 |
| About the same as before | 3 |
| Somewhat more concerned now | 4 |
| A lot more concerned now | 5 |
| Do not recall / Don't know / No response | 99 |

Q2_1

Thinking about when your child(ren) is(are) 6 months of age will you vaccinate them against COVID-19?

| | |
|---------------------------------------------------------------------------------|---|
| Yes | 1 |
| No, I will wait a bit before getting my child(ren) vaccinated against COVID-19. | 2 |
| No, I will not get my child(ren) vaccinated against COVID-19. | 3 |
| Not sure | 9 |

Q2_2

Thinking about your child(ren) between the ages of 6 months and under 5, have they received one or more doses of a COVID-19 vaccine?

| | |
|---------------------------------------------------------------------------------|---|
| Yes | 1 |
| No, I will wait a bit before getting my child(ren) vaccinated against COVID-19. | 2 |
| No, I will not get my child(ren) vaccinated against COVID-19. | 3 |
| Not sure | 9 |

Q2_3

Thinking about your child(ren) aged 5 or older, how many doses of a COVID-19 vaccine have they received?

| | |
|-----------------------------------------------------------------------------------|---|
| 1 dose | 1 |
| 2 doses | 2 |
| 3 doses | 3 |
| 4 doses | 4 |
| None, I will wait a bit before getting my child(ren) vaccinated against COVID-19. | 5 |
| None, I will not get my child(ren) vaccinated against COVID-19. | 6 |
| Not sure | 9 |

Q3_1 [1,3]

“No, I will wait a bit before getting my child(ren) vaccinated against COVID-19” or “Not sure” in Q2.1 and Q2.2, or “None. I will wait a bit before getting my child(ren) vaccinated against COVID-19” in Q2.3

Which of the following factors would make you more likely to vaccinate your child(ren) against COVID-19? Select your top 3 choices.

<[PHONE]READ LIST AND TAKE UP TO 3[ELSE]Please choose your top three reasons.>

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------|---|
| Assurance from my health professional that the COVID-19 vaccines are safe for my child(ren). | 1 |
| More information on the potential long-term effects of my child(ren) being infected with COVID-19. | 2 |
| More information from clinical trials involving children who have received the COVID-19 vaccine, including data on safety and effectiveness. | 3 |
| More information on the benefits of vaccinating children against COVID-19. | 4 |
| More information on how COVID-19 vaccines work and build immunity in children. | 5 |
| International health organizations say the COVID-19 vaccine is safe for children based on findings from testing around the world. | 6 |
| Seeing or hearing about friends, family or others I know personally getting their child(ren) vaccinated against COVID-19. | 7 |

| | |
|-------------------------------------------------------------------------------------------------|----|
| When my child(ren) is(are) older, I would feel more comfortable with them getting vaccinated. | 8 |
| If there was another vaccine type available, since I have concerns about the new mRNA vaccines. | 9 |
| If there is a COVID-19 outbreak in my child(ren)'s school and/or daycare. | 10 |
| If there is a COVID-19 outbreak in my community. | 11 |
| Other, please specify: | 77 |
| Don't know | 99 |

Q3_2 [1,3]

“No. I will not get my child(ren) vaccinated against COVID-19” in Q2.1 and Q2.2 and “None. I will not get my child(ren) vaccinated against COVID-19” in Q2.3

What are the main reasons for not choosing to have the child(ren) vaccinated against COVID-19?

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <[PHONE]READ LIST AND TAKE UP TO 3[ELSE]Please choose your top three reasons.> | |
| I have concerns about possible side effects of the COVID-19 vaccine on my child(ren). | 1 |
| I have concerns that the COVID-19 vaccine will make my child(ren) sick. | 2 |
| I do not trust the newness of the vaccine. | 3 |
| There is not enough information from clinical trials involving children who have received the COVID-19 vaccine, including data on safety and effectiveness. | 4 |
| There is not enough testing or research that has been done on children. | 5 |
| I do not believe the COVID-19 vaccine is safe for my child(ren). | 6 |
| If my child(ren) gets COVID-19, they are unlikely to get very sick. | 7 |
| I think "natural immunity" is better for children than immunity from vaccines. | 8 |
| I do not believe the COVID-19 vaccine is effective. | 9 |
| My child is very anxious or fearful of vaccinations. | 10 |
| I am wary of vaccinating my child(ren) in general. | 11 |
| Other, please specify: | 77 |
| Don't know | 99 |

Q4 [1,3]

What is your most pressing concern, if any, about the COVID-19 vaccines for children?

| | |
|---------------------------------------------------------------------|----|
| Please specify: | 77 |
| I do not have any concerns about the COVID-19 vaccine for children. | 99 |

Q5

Have any of your child(ren)'s regular childhood vaccinations been missed/delayed as a result of the COVID-19 pandemic?

| | |
|------------|---|
| Yes | 1 |
| No | 2 |
| Don't know | 9 |

Q6

"Yes" in Q5

Do you intend to catch up on your child(ren)'s missed/delayed regular childhood vaccinations?

| | |
|------------|---|
| Yes | 1 |
| No | 2 |
| Don't know | 9 |

Q7_A [1,3]

"No" in Q6

Why do you not plan for your child(ren) to get the recommended childhood vaccines?

<[PHONE]READ LIST AND TAKE UP TO 3[ELSE]Please choose your top three reasons.>

| | |
|------------------------------------------------------------------------------------------------|----|
| I am concerned about the potential side effects from vaccines | 1 |
| I am concerned about the long-term side effects of vaccines | 2 |
| I believe that children have strong immune systems and do not need vaccines | 3 |
| I do not think the diseases vaccines protect against are common in Canada | 4 |
| I do not think the diseases vaccines protect against are serious enough to warrant vaccination | 5 |
| I do not want my child(ren) to receive any more vaccines | 6 |
| I had not planned for my child(ren) to get the recommended childhood vaccines | 7 |
| I do not believe that vaccines work | 8 |
| Other, please specify: | 77 |
| Don't know | 99 |

Q8_A

Has the COVID-19 pandemic affected your intentions for your children to receive their regular recommended childhood vaccinations?

<[PHONE]READ LIST>

| | |
|--------------------------------------------------------------------------------------------------------------------------------|---|
| Yes, I'm more likely to get the recommended childhood vaccines | 1 |
| Yes, I'm less likely to get the recommended childhood vaccines | 2 |
| No. I had planned for my child(ren) to get the recommended childhood vaccines, and the pandemic did not affect my decision | 3 |
| No. I had not planned for my child(ren) to get the recommended childhood vaccines, and the pandemic did not affect my decision | 4 |
| I haven't decided yet/Don't know | 9 |

Q9_A

What impact, if any, has the recent COVID-19 pandemic had on your level of concern regarding regular recommended childhood vaccinations?

<[PHONE]PROMPT AS NEEDED>

| | |
|-----------------------------|----|
| A lot less concerned now | 1 |
| Somewhat less concerned now | 2 |
| About the same as before | 3 |
| Somewhat more concerned now | 4 |
| A lot more concerned now | 5 |
| I don't know | 99 |

QDEMO

These last questions are for statistical purposes and all your answers are completely confidential.

QAGE

In what year were you born?

| | |
|--------------------------|----|
| Record year: | 77 |
| Don't know / No response | 99 |

QAGE2

In which of the following age categories do you belong?

| | |
|--------------------------|----|
| 18 to 24 | 1 |
| 25 to 34 | 2 |
| 35 to 44 | 3 |
| 45 to 54 | 4 |
| 55 to 64 | 5 |
| 65 or older | 6 |
| Don't know / No response | 99 |

QEMP

Which categories best describes your current employment status? Are you...?

| | |
|---------------------------------------------------------------------------------------------------|----|
| Working full-time (35 or more hours per week) | 1 |
| Working part-time (less than 35 hours per week) | 2 |
| Self-employed | 3 |
| Student attending full time school (not working) | 4 |
| Unemployed, but looking for work | 5 |
| Not in the workforce (e.g. unemployed, but not looking for work, a full-time homemaker or parent) | 6 |
| Other (please specify) | 77 |
| Don't know / No response | 99 |

QEDUC

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

| | |
|------------------------------------------------------------------|----|
| Grade 8 or less | 1 |
| Some high school | 2 |
| High school diploma or equivalent | 3 |
| Registered Apprenticeship or other trades certificate or diploma | 4 |
| College, CEGEP or other non-university certificate or diploma | 5 |
| University certificate or diploma below bachelors level | 6 |
| Bachelor's degree | 7 |
| Post graduate degree above bachelor's level | 8 |
| Don't know / No response | 99 |

QMARITAL

What is your marital status?

| | |
|---------------------------------|----|
| Married or partnered/common law | 1 |
| Single | 2 |
| Divorced or separated | 3 |
| Widowed | 4 |
| Don't know / No response | 99 |

QINCOME

Which of the following categories best describes your total household income, for all persons in your household, before taxes?

| | |
|-----------------------------------|----|
| 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 \$120,000 | 6 |
| \$120,000 to just under \$150,000 | 7 |
| \$150,000 and above | 8 |
| Don't know / No response | 99 |

QBORN

Were you born in Canada?

| | |
|--------------------------|----|
| Yes | 1 |
| No | 2 |
| Don't know / No response | 99 |

QBORN B

How many years have you lived in Canada?

| | |
|--------------------------|----|
| Less than 5 years | 1 |
| 5-9 years | 2 |
| 10-19 years | 3 |
| 20-29 years | 4 |
| 30 or more years | 5 |
| Don't know / No response | 99 |

QETHNIC [1,15]

What best describes your ethnic heritage?

Select all that apply

| | |
|-----------------------------------------------|----|
| Black | 1 |
| East Asian | 2 |
| Indigenous (First Nations, Inuk/Inuit, Métis) | 3 |
| Latin American | 4 |
| Middle Eastern | 5 |
| South Asian | 6 |
| Southeast Asian | 7 |
| White | 8 |
| Other (please specify) | 77 |
| None of the above | 98 |
| Prefer not to answer | 99 |

QPOSTC

What are the first 3 digits of your postal code?

| | |
|------------------|---|
| Please specify : | 1 |
| No response | 9 |

THNK

Thank you for taking the time to complete this survey, it is greatly appreciated.

THNK2

Screened out

In light of your responses, you would not be eligible to continue with this study. Thank you for taking the time to assist us.