Post-Campaign ACET for Phase 3 of the Childhood Vaccination Campaign

Final Report

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Ce rapport est également disponible en français.

Post-Campaign ACET for Phase 3 of the Childhood Vaccination Campaign

Final Report

This report presents the methodology of an online survey conducted by Leger Marketing Inc. on behalf of Public Health Agency of Canada. The research was conducted with 1,005 Canadian adults, including parents of children under the age of six, women who are pregnant and women who are planning to become pregnant over the next year. The research was conducted between June 17 and June 30, 2019.

Cette publication est aussi disponible en français sous le titre : Évaluation post-campagne (OECP) pour la phase 3 de la campagne de vaccination des enfants.

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1. Summary

Leger is pleased to submit this report to Public Health Agency of Canada detailing the methodology of an online survey assessing ad recall for phase 3 of the Childhood Vaccination Campaign. The goal of this campaign was to raise awareness of the importance of childhood vaccination among vaccine hesitant Canadians of the following groups: parents of children under the age of six, women who are pregnant and women who are planning to become pregnant over the next year.

1.1   Background and Objectives

Immunization through vaccination is considered to be one of the greatest public health achievements of the 20th century, providing a cost-effective tool to control and eliminate life-threatening diseases that were once very common in Canada. Since the introduction of vaccines, the incidence of pertussis, measles and polio have been reduced by 87%, 99% and 100%, respectively. Yet, vaccine-preventable diseases (VPD) cases are still reported every year, primarily among infants and seniors who have not been vaccinated. Maintaining a high vaccine coverage is essential to maintaining low disease rates.

While the vast majority of Canadians are vaccinated, pockets of under- or un-vaccinated individuals exist across the country. Childhood vaccination coverage estimates in Canada have been relatively stable over time, but have generally been below the national coverage goals of 95% recently established under the federal-provincial-territorial Public Health Network. For instance, the vaccine coverage for measles in two year-old children was estimated at 89% in 2015.

To be successful in reducing the prevalence and incidence of VPD, vaccination programs rely on a high uptake level. In addition to direct protection for vaccinated individuals, high vaccination coverage rates induce indirect protection for the population at large, a term known as herd immunity, by limiting or eliminating the transmission of VPD. Achieving these thresholds (for example, a vaccination rate of 95% for measles), helps protect more susceptible segments of the community such as children who are too young to be vaccinated, cancer patients, and immuno-compromised individuals.

Vaccine hesitancy is one barrier to achieving optimal vaccine coverage rates. Vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite availability of vaccination services. It is determined by confidence in vaccine or the lack thereof, the convenience (easiness of access) and complacency.

According to the Continuum of Vaccine Acceptance (see Target Audience section), vaccine-hesitant individuals are represented in two key categories: late/selective

vaccinators and vaccine acceptors. Approximately 15-20% of the population falls into the former category as a result of doubts regarding the safety, effectiveness or importance of vaccines. Further compounding the problem is that a significant proportion of those who accept all vaccines (the latter category) may actually harbour concerns about vaccination. Although they may choose to follow the recommended vaccination schedule, they have doubts concerning their decision.

This makes both groups susceptible to opposing views from the anti-vaccination movement, personal stories on adverse reactions, media controversies, pseudo-science (e.g., retracted Lancet article linking autism with MMR vaccine), and other opinions contrary to the body of scientific evidence supporting vaccination, and the advice of national and global health authorities. Such concerns can undermine vaccine acceptance, increase hesitancy, and erode vaccination confidence. In fact, research has shown that even 5-10 minutes on an anti-vaccine website can dramatically alter one's perception and decrease acceptance of vaccines.

Such opinions are validated in the Public Health Agency of Canada 2015 Childhood National Immunization Coverage Survey, which identified that:

- The majority of respondent parents strongly agreed or somewhat agreed that childhood vaccines are safe (97%), effective (98%) and are important for children's health (98%).
- 66% of parents expressed concerns about the side effects of vaccines.
- 38% of parents agreed with the statement that a vaccine can cause the same disease it was meant to prevent.
- 15% of respondents agreed that alternative practices, such as homeopathy or chiropractors, can eliminate the need for vaccines.

In response to this public health priority, the Government of Canada implemented a two year advertising campaign to promote the importance, safety and effectiveness of vaccinations, with the goal of increasing vaccination rates. The first flight of the Childhood Vaccination Advertising Campaign ran from April to May 2018. The media mix was comprised of online ads on social media, search engines and websites. A second ad flight took place from August to December 2018 and included similar placements as the first flight complemented with television and movie theatre ads, ads in printed magazines, and posters in clinical waiting rooms. A baseline Advertising Campaign Evaluation Tool (ACET) was conducted in March 2018, and a post-campaign ACET took place in December 2018 to assess the first and second advertising waves.

A third wave of advertising launched in April 2019 was in market until late June 2019. A new ACET project was therefore needed to measure the impact of this latest ad flight.

The objectives of the research were as follows:

- Determine if people had seen the advertisements associated with the campaign;
- Determine where the ads had been seen;
- Measure recall of specific elements of the campaign;
- Identify attitudinal changes and actions taken as a result of the advertising campaign.

1.2   Application of results

The results of this research will allow Public Health Agency of Canada to assess the recall of the ad campaign based on feedback from the survey data and analysis.

1.3   Methodology—Quantitative research

Quantitative research was conducted through an online survey using Computer Aided Web Interviewing (CAWI) technology.

Fieldwork for the survey was conducted from June 17 to June 30, 2019. The national participation rate for the survey was 17.82%. Calculation of the Web survey's participation rate is presented in Appendix A. A pre-test of 30 interviews, in both official languages, was completed on June 11, 2019. More specifically, 20 interviews were conducted in French and 10 were conducted in English. Survey interviews lasted 7 minutes each on average.

A total sample of 1,005 Canadian adults were surveyed in all regions of the country.

No regional quotas were set but we ensured a minimum number in every region of the country. The following table shows the effective sample collected:

Table 1. Distribution by Region

Regions	Effective sample n
Atlantic	56
Québec	282
Ontario	397
Prairies (Saskatchewan + Manitoba)	68
Alberta	102
British Columbia + Yukon	100
TOTAL	1,005

The target audiences for the survey were vaccine-hesitant (VH) parents of children under the age of six, VH women who were pregnant and VH women who were planning to become pregnant over the next year. Quotas were set to ensure a minimum of the main target audiences of interest, namely pregnant women and women planning to become pregnant in the next year. A minimum quota of 75 in each of these two groups was set, while the remainder of respondents were parents of children under the age of six. To note, the objective of the study was to focus on women, so a maximum quota of 30% of men was set for the parents sample.

The following table shows the effective sample collected by Leger:

Table 2. Distribution by Target Audiences

Group	Effective sample n
Parents of children under the age of six	**726**
Women who are pregnant	**78**
Women who are planning to become pregnant over the next year	**201**
TOTAL	**1,005**

Based on data from Statistics Canada's 2016 national census, Leger weighted the results of the parents' sample of this survey by gender, age and region, whereas the sample of pregnant women or those who expect to become pregnant in the next year was weighted by region and age.

Since a sample drawn from an Internet panel is non-probabilistic in nature, the margin of error cannot be calculated for this survey. Survey data are weighted by age, gender and region to ensure that they replicate what the latest census would indicate is the composition of the adult population of Canada. Details regarding the weighting procedures and participation rate can be found in Appendix A.

Leger meets the strictest quantitative research guidelines. The questionnaire was prepared in accordance with the Standards for the Conduct of Government of Canada Public Opinion Research— Series A—fieldwork and data tabulation for online surveys.
The details of the methodology and more information on Leger's quality control mechanisms are presented in Appendix A.

The questionnaire is available in Appendix B.

1.3   Notes on the interpretation of the findings

The opinions and observations expressed in this document do not reflect those of the Public Health Agency of Canada. This report was compiled by Leger based on research conducted specifically for this project. This research is non-probabilistic; the results cannot be applied to the general population of Canada. The research was not designed with this objective in mind.

1.4   Declaration of political neutrality and contact information

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

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

Signed by:

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Appendix A—Detailed research methodology

A.1   Quantitative methodology

A.1.1   Methods

Research was conducted through an online survey using Computer Aided Web Interviewing (CAWI) technology.

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

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

The questionnaire is available in Appendix B.

A.1.2   Sampling Procedures

Computer Aided Web Interviewing (CAWI)

Leger conducted a panel-based Internet survey with a sample of Canadian adults. A total of 1,005 respondents participated in the survey. Participant selection was done randomly from *LegerWeb's* online panel.

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

Since an Internet sample (from the panel) is non-probabilistic in nature, the margin of error does not apply.

LegerWeb's Online Panel

For several years now, Leger had been conducting surveys via the Internet and this method is increasingly preferred because of the speed of operation, the flexibility it allows, especially when presenting visuals, and the reliability of results.

Our testing reveals that results obtained in Web surveys statistically match the results obtained in phone surveys. The validity of online surveys rests on three determining factors: 1) the validity of respondents, 2) the validity of responses and 3) the expertise of a team dedicated to online surveys.

The Validity of Respondents

Our online surveys are conducted with a panel of Internet users. Our panel has 400,000 Canadians and grows each month by 10,000 new panellists. This impressive panel allows us to conduct surveys with the public, but also with specific clienteles. For example, some segments of the population are more difficult to reach, such as people who travel a great deal, workers, young people, consumers of specific products, and so on. In addition, this volume provides close sample control and strict quality control measures.

To ensure high quality respondents for our online surveys, we have developed a proven sampling method. By cross tabulating data related to gender, age, language and region, we can establish a target group, minimize margins of error, and provide a better respect of quotas or eligibility criteria.

Internet users who make up our panel were recruited through complementary methods: telephone recruitment, e-mail invitations, links between sites and invitations using a reference system.

Data from our panel is secured though a private system accessed with a password that panellists receive when invited to answer an online survey.

To foster participation and increase response rates, each panellist invited to answer a questionnaire online has a chance to win a prize drawn each month.

Moreover, to guarantee respondent quality, the LegerWeb team manages the panel database on a continual basis.

The Validity of Responses

By answering an online survey, participants feel they represent an anonymous portion of a targeted group, providing reassurance regarding response confidentiality and validity. Also, the questionnaire must be designed with a minimum number of clicks and a reasonable number of questions because experience has shown that after a certain amount of time, respondents lose interest and no longer concern themselves with answering properly.

In addition, a pre-test with thirty Internet users is essential to catch any skip errors between questions, to respect screening criteria, and to check navigation fluidity from one question to the next, as well as interview duration. During the pre-test, panellists are invited to provide comments after having answered the questionnaire. This information is not only very useful, but may also be used to improve the questionnaire. Client representatives involved in the project participate in this validation process by testing the questionnaire online.

A process of elimination is applied to avoid keeping a questionnaire in which question fatigue ratios are detected at the end of the questionnaire.

The Expertise of a Team Dedicated to Online Surveys

The *LegerWeb* team includes about ten professionals and technicians who specialize in information technology and e-marketing and who ensure follow-up from 8h00 AM to 7h00 PM every day of the week. Most members of our team come from the fields of telephone polling or face-to-face interviews, and draw on their mastery of the art of the interview.

With its customer support, the *LegerWeb* team provides panellists with all the technical information and assistance they may need when answering an online survey.

The *LegerWeb* team works in close collaboration with the research and statistics teams and shares all pertinent information concerning a polling project. Constant communication allows us to proceed very quickly, to detect errors or problems as soon as they arise and to resolve them in record time.

Software developed by the *LegerWeb* team to conduct online surveys was designed to allow maximum flexibility, efficiency and security when administering the questionnaire. Furthermore, the team performs continuous monitoring of each online survey.

Leger uses the most recent innovations in the field of online surveys and acts in full knowledge of the limits and possibilities of research performed through online surveys.

Finally, it should be specified that Leger strives to develop its expertise in online polling by implementing the same quality standards and criteria from its renowned telephone surveys.

Also, for all our quantitative research projects, Leger has established quality control measures that are identical to the ISO process, in which all stages are verified, allowing us to verify previous stages as well. In practical terms, the quality assurance process is based on the following elements:

- Designating a project manager responsible for final product quality to avoid diluting responsibility internally;
- Scrupulously verifying how well client objectives match the final questionnaire, making sure that each dimension is found in the questionnaire;
- Verifying how each question is formulated, from the perspective of simplicity of expression and the unequivocal meaning of the syntax according to the specific idea to be covered during the interview;
- Verifying the the order of the questions to avoid effects of contamination, i.e., that the location of each question in the survey overall does not have undue effects on the following responses (generally by providing information indirectly to respondents, making the sample un-representative);
- Closely verifying the computerized version of the questionnaire with the reference questionnaire approved by the client;
- Before the pre-test, verifying programmed skips in the computerized system;
- Conducting a pre-test, which allows to verify comprehension of questions and concepts, possible ambiguities, and logical question skips, etc.;
- The highly vigilant *LegerWeb* team detects all questions with problems while on field;
- The use of software prevents data entry errors, non-established skips, etc. Logical validation is therefore done beforehand and not after the fact;
- Coding of open-ended questions is done with a first sample selection of responses on file and by setting up the codes, which are submitted to the client for approval.

We consider that the implementation of all these procedures is a guarantee of optimal quality when conducting online surveys.

Data Cleaning

Upon completion of data collection, Leger's data analysts and data processing department cleaned the data thoroughly, ensuring that:

- all closed-ended questions were within the allowable or logical range (allowable ranges would be confirmed with the client under all circumstances, whether or not it is obvious from the questionnaire);

- outliers were verified and, if necessary, excluded from the data;
- all skip patterns had been followed correctly;
- the data was complete (except where it is intentional and within client expectations); and
- information was consistent and logical across questions, with no contradictions in the data.

The data was checked and cleaned after the first night of field and at project completion. During analysis, all numbers were double-checked and any outliers were double-checked to ensure the data had been entered accurately.

A.1.3   Data Collection

Fieldwork for the survey was conducted from June 17 to June 30, 2019. The national participation rate for the survey was 17.82%. A pre-test of 30 interviews was completed on June 17, 2019. More specifically, 20 interviews were conducted in French and 10 were conducted in English. No changes were made to the questionnaire following the pre-test so the pre-test results are included in the final results. Survey interviews lasted 7 minutes each on average.

To achieve data reliability in all subgroups, a total sample of 1,005 Canadians were surveyed, in all regions of the country. Since a sample drawn from an Internet panel is non-probabilistic in nature, the margin of error cannot be calculated for this survey.

Based on data from Statistics Canada's 2016 national census, Leger weighted the results of the parents' sample of this survey by gender, age and region, whereas the sample of pregnant women or those who expect to become pregnant in the next year was weighted by region and age.

A.1.4   Participation Rate for the Web Survey

The overall participation rate for this study is 17.82%.

The following table provides the response dispositions and response rate calculation, as per the former Marketing Research and Intelligence Association's (MRIA) empirical method of calculating response rates for online surveys.

Table 3 summarizes the calculation of this study's participation rate. The calculation of the participation rate is as follows: Participation rate = Responding units / (Unresolved + In-scope non-responding units + Responding units).

Table 3. Participation Rate

Total email addresses used	**67,509**
Invalid cases	**8,656**
o invitations mistakenly sent to people who did not qualify for the study	8,656
o incomplete or missing email addresses	0
Unresolved (U)	**45,430**
o email invitations bounce back	449
o email invitations unanswered	44,981
In-scope non-responding units (IS)	**2,938**
o non-response from eligible respondents	25
o respondent refusals	2,913
o language problem	0
o selected respondent not available (illness; leave of absence; vacation; other)	0
o early break-offs	0
Responding units (R)	**10,485**
o completed surveys disqualified – quota filled	48
o completed surveys disqualified for other reasons	9,432
o completed surveys	1,005
Participation rate / response rate = R ÷ (U + IS + R)	**17.82%**

A.1.5   Non-Response Bias and Additional Socio-Demographic Analysis

A response rate of 17.82% may seem low for a national Web survey of 1,005 respondents. However, it was conducted over a short period of time (about two weeks) and with very specific target audiences. To have enough respondents, a large number of invitations were sent.

Indeed, because of the particularity of the target audiences and the low incidence rates, Léger had to invite an extremely large number of women aged 18 to 55 to find pregnant women or women wishing to become pregnant in the coming year. Since the status of pregnant women is not identified beforehand in the profile of the panelists, we were required to ask the question to a high number of women in order to identify them and to reach the quotas. This also explains the high number of screened out interviews.

Nevertheless, a basic comparison of the unweighted and weighted sample sizes was conducted to identify any potential non-response bias that could be introduced by lower response rates among specific demographic subgroups (see tables below).

A.1.6   Unweighted and Weighted Parents' Samples

The table below presents the geographic distribution of parents, before and after weighting. There were a few imbalances in geographical distribution in the unweighted sample. The weighting process has mainly adjusted the weights of Quebec, Ontario and British Columbia, which had been slightly under-represented in the sample.

Table 4. Parent's sample: Unweighted and weighted sample distribution by region

Province or territory	Unweighted	Weighted
Atlantic provinces	45	44
Quebec	138	194
Ontario	317	329
Prairies	61	60
Alberta	85	81
British Columbia	80	122

The tables below illustrate the demographic distribution of respondents by gender and age.

First, with respect to gender, we can see that the weighting adjusted the proportion of female respondents to male respondents, with women still slightly over-represented in surveys.

Table 5. Parent's sample: Unweighted and weighted sample distribution by gender

GENDER	Unweighted	Weighted
Male	225	444
Female	501	385

With respect to age, respondents between 25 and 34 years old was the target audience that was the hardest to reach, therefore this target audience is under-represented in the sample. Other target audiences were easier to reach and are well represented in the sample.

Table 6. Parent's sample: Unweighted and weighted sample distribution by age

AGE	Unweighted	Weighted
Between 18 and 24 years old	43	42
Between 25 and 34 years old	345	426
Between 35 and 44 years old	291	306
Between 45 and 54 years old	37	39
Between 55 and 64 years old	9	14
65 or older	1	2

A.1.7 Unweighted and Weighted Samples of Women who are Pregnant or Expect to be Pregnant in the Next Year

The table below presents the geographic distribution of women who are pregnant or expect to be pregnant, before and after weighting. There were almost no imbalances in geographical distribution in the unweighted sample. The weighting process has mainly adjusted the weight of Quebec, which had been slightly over-represented in the sample.

Table 7. Pregnant women's sample: Unweighted and weighted sample distribution by region

Province or territory	Unweighted	Weighted
Atlantic provinces	11	8
Quebec	144	50
Ontario	80	75
Prairies	7	4
Alberta	17	19
British Columbia	20	18

Respondents of all age groups are well represented in the sample. The table below presents the age group distribution of women who are pregnant or expect to be pregnant, before and after weighting. The weighting process has mainly reduced the weight of those women in the final sample as they were slightly over-represented.

Table 9. Pregnant women's sample: Unweighted and weighted sample distribution by age

AGE	Unweighted	Weighted
Between 18 and 24 years old	53	30
Between 25 and 34 years old	157	97
Between 35 and 44 years old	67	47
Between 45 and 54 years old	2	2

A.1.8 Weighting factors

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

The relatively small size of the weighting factors and differences in the responses of the various subgroups suggest that the quality of the data was not affected by the process.

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

We had three targets for this project: parents of children under 6 years of age, women pregnant and women expecting to become pregnant in the next year. We also eliminated respondents who had no doubts about vaccination.

Three different weightings were applied, one per profile: parent of a child under 6 years of age, women pregnant and women who expect to become pregnant. Since it was not possible to target respondents corresponding to the exact profiles sought for this study, we had to invite many panelists and validate their eligibility. We were therefore able to measure the incidence of these populations (parents, pregnant or expecting to become pregnant and those who have doubts about vaccination) from our initial sample.

The parent group was weighted by region and gender, the pregnant women group and women expecting to become pregnant by age group and region. We performed a representative weighting of these three groups according to their incidence in the population (before the elimination of respondents who do not doubt vaccines). Next, we weighted the survey respondents according to the profile of the population that have doubts about vaccination. Once the weighting was completed, we reallocated the weight of each of the three groups proportionately based on the incidence of each group, taking into consideration the element of doubts regarding vaccination.

Thus, some proportions (such as the male-female distribution) seem to be out of step with the actual population. This is because the profile of Canadians who are hesitant about vaccination is not equally distributed by gender, age groups, etc.

The following tables (table 10, 11, 12 and 13) illustrate the proportion allocated to each target audience in the sample.

Table 10. Weighting by parents, gender and region

PARENTS*GENDER*REGION	Weighting
Parents of children under the age of six AND Male AND Newfoundland, Prince Edward Island	0.0132
Parents of children under the age of six AND Male AND Nova Scotia	0.0057
Parents of children under the age of six AND Male AND New Brunswick	0.0099
Parents of children under the age of six AND Male AND Quebec	0.1189
Parents of children under the age of six AND Male AND Ontario	0.2101
Parents of children under the age of six AND Male AND Manitoba	0.0248

Parents of children under the age of six AND Male AND Saskatchewan	0.0185
Parents of children under the age of six AND Male AND Alberta	0.0470
Parents of children under the age of six AND Male AND British Columbia, Yukon, Nunavut	0.0878
Parents of children under the age of six AND Female AND Newfoundland, Prince Edward Island	0.0030
Parents of children under the age of six AND Female AND Nova Scotia	0.0081
Parents of children under the age of six AND Female AND New Brunswick	0.0127
Parents of children under the age of six AND Female AND Quebec	0.1147
Parents of children under the age of six AND Female AND Ontario	0.1868
Parents of children under the age of six AND Female AND Manitoba	0.0136
Parents of children under the age of six AND Female AND Saskatchewan	0.0151
Parents of children under the age of six AND Female AND Alberta	0.0510
Parents of children under the age of six AND Female AND British Columbia, Yukon, Nunavut	0.0591
Total	1

Table 11. Weighting by pregnant women, region and age

PREGNANT*REGION*AGE	Weighting
Pregnant women AND British Columbia, Yukon AND Between 18 and 24	0.0223
Pregnant women AND British Columbia, Yukon AND Between 25 and 34	0.0735
Pregnant women AND Alberta AND Between 18 and 24	0.0476
Pregnant women AND Alberta AND Between 25 and 34	0.0634
Pregnant women AND Alberta AND Between 35 and 54	0.0761
Pregnant women AND Manitoba, Saskatchewan AND Between 18 and 24	0.0238
Pregnant women AND Manitoba, Saskatchewan AND Between 25 and 34	0.0512
Pregnant women AND Ontario AND Between 18 and 24	0.0398
Pregnant women AND Ontario AND Between 25 and 34	0.3038
Pregnant women AND Ontario AND Between 35 and 54	0.0396
Pregnant women AND Quebec AND Between 18 and 24	0.0635
Pregnant women AND Quebec AND Between 25 and 34	0.1262
Pregnant women AND Quebec AND Between 35 and 54	0.0436

Pregnant women AND New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island AND Between 25 and 34	0.0256
Total	1

Table 12. Weighting by women who are planning to become pregnant, region and age

PLANNING TO BECOME PREGNANT*REGION*AGE	Weighting
Women who are planning to become pregnant AND British Columbia, Yukon AND Between 18 and 24	0.0156
Women who are planning to become pregnant AND British Columbia, Yukon AND Between 25 and 34	0.0945
Women who are planning to become pregnant AND Alberta AND Between 18 and 24	0.0112
Women who are planning to become pregnant AND Alberta AND Between 25 and 34	0.0445
Women who are planning to become pregnant AND Alberta AND Between 35 and 54	0.0356
Women who are planning to become pregnant AND Manitoba, Saskatchewan AND Between 18 and 24	0.0056
Women who are planning to become pregnant AND Manitoba, Saskatchewan AND Between 25 and 34	0.0060
Women who are planning to become pregnant AND Ontario AND Between 18 and 24	0.0419
Women who are planning to become pregnant AND Ontario AND Between 25 and 34	0.2274
Women who are planning to become pregnant AND Ontario AND Between 35 and 54	0.1667
Women who are planning to become pregnant AND Quebec AND Between 18 and 24	0.0921
Women who are planning to become pregnant AND Quebec AND Between 25 and 34	0.1284
Women who are planning to become pregnant AND Quebec AND Between 35 and 54	0.0754
Women who are planning to become pregnant AND New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island AND Between 25 and 34	0.0258
Women who are planning to become pregnant AND New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island AND Between 35 and 54	0.0295
Total	1

Table 13. Weighting by goup

GROUP	Weighting
Parents of children under the age of six doubtful about vaccines	1.141381
Pregnant women doubtful about vaccines	0.41481
Women who are planning to become pregnant doubtful about vaccines	0.716432

Appendix B— Questionnaire

Post-Campaign Survey
Childhood Vaccination Campaign ACET (2019)

INTRO
Thank you for taking the time to complete this survey dealing with current issues of interest to Canadians. Si vous préférez répondre au sondage en français, veuillez cliquer sur français [SWITCH TO FRENCH VERSION].

Your participation is voluntary and your responses will be kept entirely confidential. The survey takes about 10 minutes to complete.

Post-Campaign Survey
YEAR/MONTH (Drop down menus). What is your date of birth?

YEAR (1910 – 2001)

MONTH
January
February
March
April
May
June
July
August
September
October
November
December

RESP_GENDER_ca. What is your sex?
Male
Female

QMktSize_CA.   What are the first three digits of your postal code? (example: A8A)

SCREENER QUESTION TO IDENTIFY IF HAVE CHILDREN UNDER AGE 7 (SKEW FEMALE 70%)

S1. Are you the parent or legal guardian of a child age 6 years old or younger?
Yes (please enter number of children) [NUMERIC TEXT BOX]
No

[IF S1=YES, ASK S2. IF S1=NO AND FEMALE, SKIP TO S3]
[IF MALE AND S1=NO, TERMINATE]

S2. Please enter the age of your child(ren) below. If your child is under 1 years old, please enter 0
Child 1 [NUMERIC TEXT BOX, RANGE 0-6]
Child 2 [NUMERIC TEXT BOX, RANGE 0-6]
[INSERT CHILD BOXES FOR NUMBER OF CHILDREN AT S1]

SCREENER QUESTIONS TO IDENTIFY IF PREGNANT OR THINKING OF GETTING PREGNANT IN NEXT 12 MONTHS

[IF FEMALE AND S1=NO, ASK S3]
S3. Are you currently pregnant?
Yes
No

[ASK S4 IF S3=NO]
S4. Are you expecting to become pregnant within the next 12 months?
Yes
No

 [IF NO TO BOTH S3 AND S4 TERMINATE]

S5. Which of the following statements most accurately reflects your views on vaccines for your child(ren)?

I (will) accept all recommended vaccines and have no doubts or concerns [THANK AND TERMINATE]
I (will) accept all recommended vaccines but have doubts and concerns
I (will or have) refuse(d) or delay(ed) getting some vaccines
I have not decided yet about plans for vaccinating my child
I will or have refuse(d) all recommended vaccines [THANK AND TERMINATE]
Don't know/ [THANK AND TERMINATE]

GROUPING

RESPONDENTS SHOULD ONLY COUNT IN ONE GROUP

1.   Vaccine Hesitant Parents – S1=YES AND S5=2-4
2.   Pregnant and Vaccine Hesitant – S3=YES AND S5=2-4.
3.   Planning Pregnancy and Vaccine Hesitant – S4=YES AND S5=2-4

Thank you for taking the time to complete this survey dealing with current issues of interest to Canadians.

Your participation is voluntary and your responses will be kept entirely confidential. The survey takes about 10 minutes to complete.

CORE QUESTIONS

[MQB]

ASK ALL RESPONDENTS

Q1:

Over the past three weeks, have you seen, read or heard any advertising from the Government of Canada?

yes
no

[IF YES, CONTINUE, IF NO, SKIP TO T1A]

_____

Q2:

Think about the most recent ad from the Government of Canada that comes to mind. Where have you seen, read or heard this ad?

RANDOMIZE, ANCHOR OTHER, SELECT ALL THAT APPLY

o   cinema
o   Facebook
o   Internet website
o   magazines
o   newspaper (daily)
o   newspaper (weekly or community)
o   outdoor billboards

o   pamphlet or brochure in the mail
o   public transit (bus or subway)
o   radio
o   television
o   Twitter
o   YouTube
o   Instagram
o   LinkedIn
o   Poster in medical clinics/establishments
o   Mobile app
o   Other, specify _____

_____

Q3:
What do you remember about this ad?

_____

Q4:
How did you know that it was an ad from the Government of Canada?

CAMPAIGN SPECIFIC QUESTIONS

ASK ALL RESPONDENTS
T1A:
Over the past three weeks, have you seen, read or heard any Government of Canada advertising about routine childhood vaccinations?

Recommended childhood immunizations include routine vaccines to prevent tetanus, diphtheria, pertussis (whooping cough), polio and measles, mumps, rubella (MMR) as well as haemophilus influenza type B (Hib). They also include recommended vaccines to prevent chicken pox (varicella), but do not include vaccines you get to prevent flu or in advance of travelling.

Yes
No

[IF YES, CONTINUE, IF NO, SKIP TO T1D]

_____

T1B:

Where have you seen, read or heard this ad about routine childhood vaccinations?

RANDOMIZE, ANCHOR OTHER, SELECT ALL THAT APPLY

o   Cinema
o   Facebook
o   Internet website
o   magazines
o   newspaper (daily)
o   newspaper (weekly or community)
o   outdoor billboards
o   pamphlet or brochure in the mail
o   public transit (bus or subway)
o   radio
o   television
o   Twitter
o   YouTube
o   Instagram
o   LinkedIn
o   Poster in medical clinics/establishments
o   Mobile app
o   Other, specify _____

_____

T1C:
What do you remember about this ad?

_____

ASK ALL RESPONDENTS
T1D:
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 recommended childhood vaccinations?

1 Not at all
2
3 Moderately
4
5 Completely
Don't know

T1E:
In the past 12 months, have you looked for information about childhood vaccinations?

Yes
No
Don't recall
Don't know

T1F:
How much do you agree or disagree with each of the following statements? In general…

[COLUMNS]
Strongly agree
Somewhat agree
Somewhat disagree
Strongly disagree
Don't know
Prefer not to answer

[ROWS, RANDOMIZE]
…childhood vaccines are safe.
…childhood vaccines are effective.
…childhood vaccines are important for your child's health.

M1:
Have you heard about the recent measles cases in Canada?

Yes
No
Don't recall
Don't know

[ASK M2 IF M1= 1]
M2:
What impact, if any, have the recent measles cases had on your level of concern regarding:

[COLUMNS]
A lot less concerned now
Somewhat less concerned now
About the same as before
Somewhat more concerned now
A lot more concerned now
I do not recall
I don't know
I prefer not to answer

[ROWS, RANDOMIZE]
Children's vaccination
The risk of your child(ren) catching measles
Your own risk of catching measles

_____

T1H:
Here are some ads that have recently been broadcast on various media. Please make sure your sound is on and click next to see the ads.
[INSERT VIDEO, FACEBOOK AND DIGITAL ADS]

[CLICK TO GO TO THE NEXT PAGE]

Over the past few months, have you seen, read or heard any of these ads?
yes
no

[IF YES, CONTINUE, IF NO, SKIP TO T1J]

_____

T1I:
Where have you seen, read or heard these ads?

RANDOMIZE, ANCHOR OTHER, SELECT ALL THAT APPLY

o   cinema
o   Facebook
o   Internet website
o   magazines
o   newspaper (daily)
o   newspaper (weekly or community)
o   outdoor billboards
o   pamphlet or brochure in the mail
o   public transit (bus or subway)
o   radio
o   television
o   Twitter
o   YouTube
o   Instagram
o   LinkedIn
o   Poster in medical clinics/establishments
o   Mobile app
o   Other, specify _____

_____

T1J:
What do you think is the main point these ads are trying to get across?

_____

T1K:
Please indicate your level of agreement with the following statements about these ads?

RANDOMIZE STATEMENTS

1 Strongly Disagree
2
3
4
5 Strongly Agree

These ads catch my attention

These ads are relevant to me

These ads are difficult to follow

These ads do not favour one political party over another

These ads talk about an important topic

These ads provide new information

These ads clearly convey that the Government of Canada can provide answers to parents with questions on vaccination.

These ads made me more likely to think that childhood vaccination is important

These ads made me feel more comfortable about childhood vaccination

[ASK IF T1H=YES]

T1L:

Did you do any of the following as a result of seeing the ad(s)? Please select all that apply

Visited the Canada.ca/ChildhoodVaccines website

Discussed vaccination with my health professional

Discussed vaccination with a friend or family member

Shared the information

Decided to vaccinate my child

Looked for vaccination information online

Thought more about vaccinations for my child(ren)

Other, specify _____

I didn't do anything as a result of seeing the ad

DEMOGRAPHIC QUESTIONS

D1:

Which of the following categories best describes your current employment status? Are you…

SELECT ONE ONLY

o   working full-time (35 or more hours per week)
o   working part-time (less than 35 hours per week)
o   self-employed
o   unemployed, but looking for work
o   a student attending school full-time
o   retired
o   not in the workforce (Full-time homemaker or unemployed but not looking for work)
o   other employment status

_____

D2:

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

SELECT ONE ONLY

o   grade 8 or less
o   some high school
o   high school diploma or equivalent
o   registered Apprenticeship or other trades certificate or diploma
o   college, CEGEP or other non-university certificate or diploma
o   university certificate or diploma below bachelor's level
o   bachelor's degree
o   postgraduate degree above bachelor's level

_____

D3:

Which of the following categories best describes your total annual household income, including income from all household members, before taxes are deducted?

SELECT ONE ONLY

o   under $20,000
o   between $20,000 and $40,000
o   between $40,000 and $60,000
o   between $60,000 and $80,000
o   between $80,000 and $100,000
o   between $100,000 and $150,000
o $150,000 and above
o   prefer not to say

_____

D4:

Where were you born?

o   born in Canada
o   born outside Canada
                         ▢ Specify the country:

ASK IF D4=BORN OUTSIDE CANADA

D5:
In what year did you first move to Canada?

YYYY

ADMISSIBLE RANGE: 1900-2019

_____

D6:
What is the language you first learned at home as a child and still understand?
SELECT UP TO TWO
o   English
o   French
o   Other language, specify _____

_____

That concludes the survey. This survey was conducted on behalf of the Health Canada. In the coming months the report will be available from Library and Archives Canada. We thank you very much for taking the time to answer this survey, it is greatly appreciated.