ENVIRONICS RESEARCH

Survey of Healthcare Providers' Views and Experiences with Vaccine Hesitancy Final Report

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Executive summary

Background and objectives

The Public Health Agency of Canada (PHAC) identified the need for public opinion research to understand healthcare providers' (HCP) perspectives of, and experiences with, vaccine delay/refusal at a time when the number of Canadians who are delaying/refusing immunization is increasing. The research was needed to understand how HCPs communicate with patients about vaccination, how the rate of hesitancy is changing over time and what tools and resources HCPs are aware of/utilize.

Specifically, the aims of the research are to:

- Assess HCPs' knowledge, attitudes and beliefs on: vaccine effectiveness & safety;
- Assess HCPs' experience with vaccine hesitancy and parental concerns;
- Assess what documents, tools or other resources HCP currently use to find information on vaccines and messages/strategies to encourage hesitant patients to accept vaccines;
- Identify HCPs' awareness, use and perception of PHAC products on immunization; and
- Determine whether HCPs have unmet needs for addressing vaccine hesitancy.

Methodology

To address the research objectives, an online survey was conducted with 2,004 healthcare providers who provide vaccines or advice on vaccines. Five separate groups of healthcare providers were surveyed between November 21, 2017 – January 25, 2018:

- General practitioners, family doctors (n=535);
- Midwives (n=297);
- Nurses (n=493);
- Pharmacists (n=601); and
- Specialists (Obstetrician/Gynecologists & Paediatricians n=78)

The online survey was conducted using the mdBriefCase online panel of healthcare providers and the mailing list of the Canadian Association of Midwives (CAM). Respondents to the survey were each paid a \$25 incentive for their participation. Sampling targets were used with the aim of capturing a roughly representative sample of each profession within each region of the country. The sample was randomly drawn from a large and diverse opt-in panel of HCPs; however, because it is not a probability sample, the results cannot be extrapolated to the actual HCP population and no margin of sampling error can be calculated. Due to disparities in how each type of HCP provides vaccines and the regulatory/professional frameworks for doing so for different types of HCPs in different regions in Canada, no direct statistical comparisons are made between professions and no attempt is made to provide an 'overall' measure for HCPs in Canada.

Cost of research

The cost of this research was \$138,312.00 (HST included).



Key findings

The following presents the key findings of the research, first in terms of the overall themes, followed by a brief summary of each individual healthcare profession.

HCP's experience with patient vaccine hesitancy

- The scope of each health professions' focus on vaccination varies, which is evident in how long they have been administering or providing advice on vaccines, how often they do so, and the patient types they see. Family physicians and nurses tend to manage vaccines for patients of all types and ages while midwives, specialists and pharmacists work with more narrowly defined patient types. Family physicians, nurses and specialists have generally been involved with vaccination for longer and do it more frequently than midwives and pharmacists.
- HCPs appear to be encountering vaccine hesitancy in their practices on a regular basis. The consensus is
 that patients express reluctance "some of the time", with a small proportion of HCP respondents who
 say it happens more often than that. HCP experiences with outright refusals or requests for alternative
 schedules are much rarer.
- There are mixed views about whether there has been a shift in the frequency of vaccine reluctance, refusals, alternative schedule requests and patients mentioning incorrect vaccine information over the past five years, but the largest proportion within each HCP type (roughly 50 percent or more) have not perceived any change. The exception is specialists, who are most likely to feel these occurrences have increased. Similarly, HCP respondents generally believe that patient expressions of support for vaccination and their knowledge of the topic, have remained the same compared to five years ago.
- In the past year, HCPs heard a wide variety of reasons from patients as to why they did not want themselves or their family members vaccinated. The main reasons revolve around vaccine safety, including concerns about specific vaccine ingredients, concerns about possible long-term effects and knowing someone who had an adverse reaction to a vaccine. HCP respondents most often encountered patient reluctance around the MMR/MMVR, varicella, HPV, rotavirus and herpes zoster vaccines.
- HCP respondents are widely concerned about patient vaccine reluctance, with at least eight in ten or more who say it is at least somewhat of an issue facing public health.

HCP's knowledge/attitudes/beliefs about vaccine effectiveness & safety

- There is a broad and strong consensus among HCPs that vaccines in use in Canada are safe and effective, that they trust the recommendations of the National Advisory Committee on Immunization (NACI) and that the vaccine regulatory system in Canada is working effectively. Most HCP respondents also strongly disagree with negatively-worded statements about vaccines, including concerns that the HPV vaccine could lead to unprotected sex and about the lower effectiveness and safety of administering multiple vaccines at a single visit.
- Just over one in ten family physicians, nurses, pharmacist and specialists say there is at least one vaccine they are reluctant to recommend. Reported vaccine reluctance is higher among midwives (34%).
- As would be expected, each HCP type describes themselves as most comfortable understanding and
 applying vaccine recommendations among the patient groups with which they have the most
 experience; this means that family physicians and nurses are more comfortable with a broader range of



patients than are specialists, pharmacists and midwives. All HCP types are least comfortable with vaccine recommendations for immunocompromised patients.

Preparedness for patient communications

- In general, HCP respondents consider themselves at least somewhat prepared to personally address patients' vaccine concerns, although only a minority feel very prepared.
- The messages that HCPs feel have been most effective in helping vaccine hesitant patients become more comfortable with vaccinations fall into three broad themes: providing information, research and evidence; reinforcing the effectiveness of the vaccines (e.g., disease prevention and other benefits); and, addressing safety concerns. Relatively few say they have effectively used messages focused on dispelling existing myths.
- HCP respondents' degree of comfort providing vaccine advice to patients where language barriers exist is mixed: half or fewer describe themselves as at least somewhat comfortable in this role. There does appear to be a gap in vaccine resources for patients who do not speak Canada's official languages. While most HCPs outside midwives believe they have adequate access to information resources that help them address patient concerns about vaccination, only a minority of each HCP type say they have adequate access to resources to support patients who speak a language other than English or French.

Information sources

- Of the options presented, the Canadian Immunization Guide (CIG) is universally preferred by all HCP types for updating their own vaccine knowledge, followed closely by statements from NACI (provincial/territorial protocols and guidance documents were not provided as an option). Medical journals, conferences and professional association newsletters are also commonly used, but the extent varies by HCP group. There is room to grow the use of CIG's email updates, which are currently used by only a small subset of HCP respondents. The main barrier is a lack of awareness of this subscription service.
- Aside from the CIG, the next most widely known and used PHAC product is 'A Parent's Guide to Vaccination' among nurses and midwives specifically. Frequency of use of other PHAC resources is low.
- HCPs typically display printed health promotional materials in waiting and exam rooms, while nurses
 and midwives are among the most likely to give them directly to patients. When it comes to vaccine
 information specifically, printed resources are more widely used than digital ones, although the former
 tend to be used with patients, while the latter are more commonly for HCPs own information. A
 majority of HCPs outside midwives do send patients home with printed materials about vaccination.
- HCP respondents' suggestions for how PHAC can assist them in addressing patient vaccine reluctance
 revolve around three key themes: raising the profile of the issue, educating and informing the public and
 providing access to printed materials.



With these broad findings in mind, the following paragraphs highlight unique aspects of the experiences and opinions of each HCP type.

Family physicians

Family physicians have the broadest scope in terms of the patients they see and the vaccines they provide; they are the most likely to be providing vaccines and/or advice at least a few times a week (78%). While half say that patient vaccine hesitancy is unchanged from five years ago, the remainder are twice as likely to say this behaviour has increased (33%) than decreased (17%). Notably, they are not as likely as nurses, pharmacists and specialists to feel they have adequate access to information resources to help them address patient vaccine concerns. Family physicians are also least likely to use social media to learn and/or share information about health issues including vaccination.

Nurses

Like family physicians, nurses see a diverse group of patients and are almost as frequently engaged in providing vaccines and/or advice. Their experiences with patient vaccine hesitancy and their own personal beliefs about vaccine safety and efficacy also generally mirror those of family physicians. Where nurses stand out is in their greater use of both printed and digital informational materials, including being by far the most likely to send home printed materials about vaccination with patients. They are most likely to know about PHAC resources and to make use of them, to subscribe to CIG email updates and to be familiar with the *CANImmunize* app. Finally, they are more likely than others to say they have adequate resources for patients where there is a language barrier (although only 36% say they do).

Pharmacists

As a group, pharmacists report a more limited scope for administering vaccines (mostly adults, seniors, and to a lesser extent, children), have been doing so for less time than most other HCPs and do it less frequently (and in Quebec, pharmacists are not allowed to vaccinate). Perhaps for this reason, relatively few (27%) feel very prepared to handle patient concerns (although this is on par with family physicians). Pharmacists have a positive view of vaccine safety, efficacy and regulation, but are less likely than other HCP types to strongly disagree with negative statements about vaccines (e.g., that administering multiple vaccines at a single visit could reduce their efficacy or overwhelm the immune system). They are not, however, any more reluctant to recommend vaccines. Pharmacists are relatively more likely to use digital vaccine resources, especially online resources or web portals. Given their typical workspace, they are less likely to hang general health promotional posters in their office, clinic or waiting room or to give such materials to a patient.

Specialists

For this study, specialists included obstetricians/gynaecologists and paediatricians. Thus, their practice with respect to vaccines is focused on pregnant women, infants and children. With the caveat that low numbers of specialists responded to the survey (n=78), they are the most likely to report that patient vaccine reluctance (55%, n=42) and mentions of incorrect vaccine information (52%, n=40) are happening more often than five years ago; substantial minorities also perceive more outright refusals and alternative schedule requests than before. Likely as a result, they are far more likely than others to see vaccine reluctance as a significant public health issue. At the same time, specialists are among the most likely to feel very prepared to address patient vaccine concerns (on par with nurses).



Midwives

Midwives administer and/or provide advice on vaccines almost exclusively for pregnant women and infants, and the frequency with which they do this is the lowest of the HCP types. They are more likely to report experiencing patient vaccine hesitation in all its forms, including reluctance, refusal and requesting an alternative schedule. They are the most likely to report hearing patient concerns about the long-term effects of vaccines, specific ingredients (such as mercury) and to say their patients are reluctant about *all* infant vaccines (50%). It is possible that they may attract more vaccine hesitant patients (parents).

Midwives are consistently less likely to hold positive views about vaccines (and most likely to say they are not sure about safety, efficacy etc). They are also most likely to have concerns about administering multiple vaccines at a single visit and to be themselves reluctant to recommend at least one vaccine (most often citing the adult HPV or infant varicella vaccines). Midwives are the least likely of all HCPs to say they are 'very prepared' to address patient vaccine concerns. They are also the least likely to feel they have adequate information resources to help them address patient concerns about vaccines.

Political neutrality statement and contact information

I hereby certify as a Senior Officer of Environics Research 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 contain any reference to electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leader.

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Introduction

Background

The benefits of immunization are well-established, and although these benefits have been promoted by governments, public healthcare organizations and healthcare representatives for a long time now, some Canadians delay or refuse to get immunized. Recent research even suggests that the number of Canadians who are delaying or refusing immunization is increasing.

Healthcare providers are an important agent in the uptake of immunization. As authorities on an important personal issue, they are also opinion leaders. Evidence from the 2013 Childhood National Immunization Coverage Survey (cNICS) indicates that HCPs are the most trusted source of immunization information for Canadians.

Budget 2016 committed \$25 million over five years (\$5M annually), starting in 2016-17, to PHAC to increase immunization coverage rates. This survey of HCPs will facilitate evaluation of key PHAC published resources (i.e.: National Advisory Committee on Immunization statements, the Canadian Immunization Guide) and their role in building capacity in HCPs to address vaccine hesitancy. The survey of HCPs will also inform the direction of the Centre for Immunization and Respiratory Infectious Diseases (CIRID) programs by providing relevant information on the views/needs of HCPs in addressing concerns of their vaccine hesitant patients, and on immunization more generally. The Agency will use the survey results to advise program activity and to establish a baseline for measuring program effectiveness through a future survey.

Research rationale and objectives

PHAC identified a need to build on existing research to better understand healthcare providers' perspectives of, and experiences with, vaccine delay/refusal. This research will help PHAC to answer questions, such as: how do HCPs communicate with their patients about immunization? Do HCPs see hesitancy among patients increasing or decreasing? What resources, tools, and tactics are HCPs using to address vaccine hesitancy? Are HCPs aware of all of the tools and resources available to them? What tools or resources do HCPs find effective? Do HCP's know about or use PHAC resources and tools? This research will also facilitate evaluation of key PHAC published resources and their role in building capacity in HCPs to address vaccine hesitancy.

The research supports commitments announced in Budget 2016 to update the national immunization coverage goals & disease reduction targets, improve Canada's ability to identify under- and un-immunized Canadians and develop a focused program to improve vaccine access/uptake. It also helps PHAC improve immunization initiatives and the resources that HCPs use. In particular, the research findings will be used to help PHAC develop and disseminate resources for HCPs and Canadians to help them make an informed decision about immunization. Survey questions on HCPs' experience of vaccine hesitancy, knowledge, attitudes and beliefs will help the Agency understand and answer the questions and concerns that Canadians and healthcare providers have about immunization. Overall, this research will help direct program activities designed to increase immunization uptake in Canada.



More specifically, the aims of the research are to:

- Assess HCPs' knowledge, attitudes and beliefs on: vaccine effectiveness & safety;
- Assess HCPs' experience with vaccine hesitancy and parental concerns (e.g. how much of an issue
 encountering vaccine-hesitant patients is in their practice, whether they feel they know how to address
 it and their comfort level in doing so, how they are currently dealing with vaccine hesitancy and
 identifying the main reasons provided by patients for their vaccine hesitancy);
- Assess what documents, tools or other resources HCP currently use to find information on vaccines and messages/strategies to encourage hesitant patients to accept vaccines;
- Identify HCPs' awareness, use and perception of PHAC products on immunization; and
- Determine whether HCPs have unmet needs for addressing vaccine hesitancy (e.g. if there is a need for guidance/advice resources or training on how to communicate with patients/parents about vaccines).

The results of this research will be used to:

- Assess and understand vaccine hesitancy beliefs;
- Assess and understand HCPs typical interactions with hesitancy;
- Determine resources they use to address it;
- Identify resources and tools that would help HCPs address vaccine hesitancy; and
- Inform program planning and resource development for subsequent immunization campaigns and program delivery in Canada.

Methodology

The results of this research are based on an online survey conducted with a total of 2,004 healthcare providers who administer and/or provide advice about vaccines to patients. Five separate types of healthcare providers were surveyed between November 21, 2017 and January 25, 2018:

- Family physicians (n=535);
- Midwives (n=297);
- Nurses (n=493);
- Specialists (Obstetricians/Gynecologists & Paediatricians n=78); and
- Pharmacists (n=601).

Survey respondents for all HCP types except midwives were gathered using a proprietary, 'opt-in' panel. Because the samples used in online panel surveys are based on self-selection and not a probability sample, no formal estimates of sampling error can be calculated.



Sample design and weighting

The sample was designed to achieve completed surveys with 2,000 Canadian HCPs. Survey respondents were screened to ensure that they administer and/or provide advice about vaccines to patients. The eligibility rate among HCPs who started the survey is 80 percent or more for each HCP type; the table below summarizes the eligibility rate.

Figure 36: Rate of administering/providing vaccine advice by HCP group

| Health Care Provider Group | Started Survey | administe | not er/provide ut vaccines | Administer/provide advice about vaccines | |
|--|-------------------|------------|----------------------------------|--|-------|
| | | Proportion | Count | Proportion | Count |
| Family Physicians | 549 | 3% | 14 | 97% | 535 |
| Midwives | 345 | 14% | 48 | 86% | 297 |
| Nurses | 588 | 16% | 95 | 84% | 493 |
| Pharmacists | 755 | 20% | 154 | 80% | 601 |
| Specialists (obstetricians/gynecologists and paediatricians) | 89 | 12% | 11 | 88% | 78 |
| Total | 2,326 | 14% | 322 | 86% | 2,004 |

A random sample of family physicians, nurses, specialists and pharmacists were invited to participate through the mdBriefCase online panel of healthcare providers. Quotas were set by region within each health profession to ensure the final sample is representative of the distribution of HCPs across the country.

The sample of midwives is based on the mailing list of the Canadian Association of Midwives (CAM). No regional or other quotas were set for this target audience.

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The table below summarizes the actual number of completed surveys by region within each health profession. In most cases, the regional distribution of respondents in each profession closely matches population statistics drawn from the 2016 CIHI Health Workforce Survey and the CAM website. As a result, minimal weighting factors were used to ensure the data matched the population distribution. Since no population estimates exist for HCPs who provide vaccines or vaccine advice, the weighting targets are based upon the overall universe of HCP types (regardless of whether they provide vaccines/advice).

The only segment that was not weighted is pharmacists in Quebec since they do not currently provide vaccines. Instead, their unweighted distribution in the data was maintained (four percent) and the remaining regions were redistributed proportionately to the number of pharmacists outside of Quebec.

| Figure 37: Unweighted and weighted HCP group counts by region | | | | | | | | |
|---|----------------------|----------|--------|-------------|-------------|--|--|--|
| Region (Unweighted) | Family Physicians | Midwives | Nurses | Pharmacists | Specialists | | | |
| Atlantic | 38 | 6 | 34 | 27 | 3 | | | |
| Quebec | 35 | 24 | 113 | 22 | 16 | | | |
| Ontario | 325 | 175 | 207 | 406 | 41 | | | |
| Manitoba/Saskatchewan | 38 | 11 | 47 | 38 | 4 | | | |
| Alberta | 45 | 21 | 47 | 51 | 7 | | | |
| BC/Territories | 54 | 60 | 45 | 57 | 7 | | | |
| Region (Weighted) | Family Physicians | Midwives | Nurses | Pharmacists | Specialists | | | |
| Atlantic | 38 | 2 | 43 | 57 | 5 | | | |
| Quebec | 124 | 38 | 118 | 22 | 18 | | | |
| Ontario | 194 | 157 | 170 | 274 | 30 | | | |
| Manitoba/Saskatchewan | 33 | 17 | 39 | 57 | 5 | | | |
| Alberta | 67 | 21 | 61 | 94 | 11 | | | |

Figure 37: Unweighted and weighted HCP group counts by region

Questionnaire design and pre-testing

BC/Territories

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PHAC developed a draft questionnaire, which was revised and finalized based on recommendations from Environics. It was designed to meet all of the research objectives set out for this project and adhere to Federal Government standards for public opinion research. The final study questionnaire is included as Appendix B.

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Prior to finalizing the survey for field, a pre-test (soft launch) was conducted in English and French on November 21, 2017 with a total of 43 respondents. The pre-test assessed the questionnaire in terms of question wording and sequencing, respondent sensitivity to specific questions and to the survey overall and to determine the survey length; standard Government of Canada pre-testing questions were also asked. Following the pre-test, three questions were removed to reduce the questionnaire length. Since there were no other substantive changes, all of the pre-test interviews were kept as part of the final sample.



Fieldwork

The survey was programmed by Environics in a secure, fully featured web-based survey environment. To maintain respondent confidentiality, invitations to the survey were managed by mdBriefCase (including a unique URL survey link for each respondent) and the Canadian Association of Midwives (including an open link that was valid for all midwives). Data collection for the mdBriefCase sample took place between November 21, 2017 and January 25, 2018, and for the CAM sample between December 15, 2017 and January 25, 2018. All respondents to the survey were paid a \$25 incentive for their participation. The average length of time to complete the survey was 21 minutes.

All respondents were offered the opportunity to complete the surveys in their official language of choice. All research work was conducted in accordance with the Standards for the Conduct of Government of Canada Public Opinion Research – Online Surveys and the standards set by the Marketing Research and Intelligence Association (MRIA), as well as applicable federal legislation (Personal Information Protection and Electronic Documents Act, or PIPEDA). Both the research design and the questionnaire were also submitted for review to the Health Canada/PHAC Research Ethics Board (REB). The survey was registered with the MRIA's research registration system, which permits the public to verify the legitimacy of a survey, inform themselves about the industry and/or register a complaint.

A total of 31,063 survey invitations were sent to health care professionals. Overall, 2,326 responded to this email invitation and clicked on the survey link, resulting in a seven percent contact rate. Respondents who do not administer vaccines or provide advice are removed in the calculation of the overall participation rate, which was 6%. The contact rate was highest for midwives; it ranged from 3-8% for the HCP types sourced from the mdBriefCase panel.

| # of respondents | Family Physicians | Nurses | Pharmacists | Specialists (obstetricians/ gynecologists & paediatricians) | mdBriefCase (Total) | Midwives | Total |
|--------------------------------|----------------------|--------|-------------|--|------------------------|----------|---------|
| (A) Sent an email invite | 9,007 | 6,954 | 10,580 | 2,302 | 29,563* | 1,500 | 31,063* |
| (B) Started Survey | 549 | 588 | 755 | 89 | 1,981 | 345 | 2,326 |
| (C) Contact Rate (B / A) | 6% | 8% | 7% | 4% | 7% | 23% | 7% |
| (D) Not qualified | 14 | 95 | 154 | 11 | 274 | 48 | 322 |
| (E) Completed Survey | 535 | 493 | 601 | 78 | 1,707 | 297 | 2,004 |
| (F) Participation Rate (E / A) | 6% | 7% | 6% | 3% | 6% | 20% | 6% |

^{*}Some respondents within the mdBriefCase panel had profession information that could not be classified or was unknown. These cases (720 in total) have been included in the total invites number but not within each profession type. Although the proportion of respondents without profession information is very small (2%), the contact/participation rates for each profession (outside of midwives) may be slightly lower than reported here.

Two rounds of reminder emails were sent throughout the fieldwork period to attempt to reach those who had been sent an initial invite but had not yet completed the survey. This was done to maximize the contact rate and minimize the effects of nonresponse bias.



Limitations of the methodological approach

The mdBriefCase panel contains more than 100,000 HCPs and includes a significant proportion of the total population of each healthcare profession within Canada. In most cases, the panel also appears to be regionally representative of each healthcare profession.

We believe that this research provides a broad and solid understanding of the attitudes and opinions of HCPs. However, there are some limitations that should be taken into consideration when interpreting the results.

- As described earlier, the mdBriefCase sample was randomly drawn from an opt-in panel and thus is not a probability sample. For this reason, the results cannot be extrapolated to the total population of these healthcare professions and no margin of sampling error can be calculated.
- While every attempt was made to include specialists, relatively few participated in the survey (n=78) in comparison to other HCP types. Specialists are known to be a more difficult audience to attract for surveys. This is often due to significant other time commitments, and thus a higher incentive may have been required to garner their participation. The results for this group should be viewed in the context of their limited sample size.
- The contact rate among all HCPs excluding midwives was seven percent; among midwives it was 23 percent. These contact rates are typical for public opinion research studies conducted with an online panel of potential respondents. It should be noted that the mdBriefCase panel is typically used to provide Continuing Medical Education (CME) and to date, has not been used to conduct such in-depth survey research (21-minute average interview length). This may have impacted the level of participation from panellists.
- Respondents were informed up front in the survey invitation about the topic of the survey and that the
 survey was being conducted on behalf of the Public Health Agency of Canada. This may introduce bias into
 the sample towards pro-vaccine HCPs, since HCPs who hold a less socially desirable opinion may have
 chosen not to participate. It is also possible that bias was introduced because HCPs who are less positive
 toward vaccines may be less likely to say they administer/provide advice about them and therefore less
 likely to have taken part in the survey.
- Weighting was applied to the sample that corrected for regional imbalances within each profession. The
 weighting targets used are based on CIHI estimates and CAM statistics for each profession across the
 country, but this survey was conducted with only the subgroup of HCPs who administer vaccines or provide
 vaccine advice. As the proportion of each HCP profession who do vaccinate/provide advice may vary from
 province to province (dependable estimates in this respect are not available), the weighting may have
 introduced a bias.

About The Report

This report begins with an executive summary outlining key findings and conclusions, followed by a detailed analysis of the survey data.

Due to disparities in how each type of HCPs provide vaccines and the regulatory/professional frameworks for doing so for different types of HCPs in different regions in Canada, no direct statistical comparisons are made between professions and no attempt is made to provide an 'overall' measure for HCPs in Canada.

Provided under a separate cover is a detailed set of "banner tables" presenting the results for all questions by HCP type (profession). These tables are referenced by the survey question given underneath each table or graph. A detailed description of the methodology used to conduct this research is presented in *Appendix A*.



Sample sizes are provided for every question in the report, including where a subset of all respondents was asked to provide a response. A description of what proportion of the entire data set is represented in the data displayed is given below each table/graph.

In this report, results are expressed as percentages unless otherwise noted. Results may not add to 100% due to rounding or multiple responses. Net results cited in the text may not exactly match individual results shown in the charts due to rounding. In cases where fewer than 20 responses are provided for a given question within a HCP group, the results are suppressed to protect anonymity.



Detailed findings

Section 1: Administering and providing advice on vaccines

Length of time and frequency of providing vaccines

Most of the HCPs surveyed have been providing vaccines for many years; how frequently they do so varies considerably.

A majority of family physicians and specialists report administering or providing advice about vaccines for more than 15 years. Three quarters of nurses say they have done so for at least six years, while three-quarters of midwives have done so for between one and 15 years. Reflecting relatively recent changes in professional duties, the majority of pharmacists have been doing so for five years or less (in most provinces, pharmacists only began vaccinating less than 10 years ago and in Quebec they are not currently allowed).

Figure 1: Length of time administering vaccines/providing advice on vaccines

| Length of time | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--------------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Less than 1 year | 1% | 6% | 4% | 5% | 2% |
| 1 to 5 years | 18% | 39% | 21% | 60% | 14% |
| 6 to 15 years | 24% | 37% | 40% | 22% | 25% |
| More than 15 years | 57% | 18% | 35% | 13% | 59% |

Q2. For approximately how many years have you been administering vaccines or providing advice to your patients on vaccines? Base: All respondents

There are also distinctions in how often HCP respondents administer or provide vaccine advice. Approximately three in ten family physicians, nurses and specialists do so on a daily basis, with majorities doing so at least a few times a week. Midwives and pharmacists administer or provide vaccine advice less often, with majorities in each profession who say they do so once a week or less often.

Figure 2: Frequency of administering/providing advice on vaccines

| Frequency | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|-----------------------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Daily | 33% | 1% | 28% | 15% | 30% |
| A few times a week | 45% | 25% | 35% | 32% | 28% |
| About once a week | 12% | 35% | 11% | 20% | 21% |
| Less often than once a week | 10% | 40% | 25% | 33% | 22% |

Q3. How often do you administer vaccines or provide advice about vaccines? Base: All respondents



Patient types

Family physicians and nurses have the broadest patient roster for vaccines, while specialists, pharmacists and midwives are more specialized.

A majority of family physicians report providing vaccines/advice to patients of every type, although most commonly adults and seniors. Similarly, a majority of nurses say the same, albeit with fewer providing vaccines/advice to each type of patient than do family physicians. Specialists (which include obstetricians/gynecologists and paediatricians) are more likely to provide vaccines/advice to infants and children than to other patient types, while midwives are most likely to do this for pregnant women and infants. Pharmacists tend to provide vaccines/advice mostly to adults and seniors.

Figure 3: Patient types to whom HCPs administer/provide advice on vaccines

| Patient types | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---------------------------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Infants/young children (0-6yrs) | 75% | 81% | 57% | 14% | 72% |
| Children (7-17yrs) | 78% | 1% | 62% | 60% | 66% |
| Adults (18-64yrs) | 92% | 28% | 90% | 95% | 37% |
| Seniors (65yrs+) | 94% | 1% | 79% | 90% | 11% |
| Pregnant women | 61% | 86% | 51% | 45% | 25% |
| Other | 9% | 2% | 9% | 4% | 3% |

Q4. To whom do you administer vaccines and/or provide advice on vaccines? Base: All respondents



Section 2: Patients' perceptions about vaccines

Patient reluctance/concern about vaccines

HCPs typically report that vaccine reluctance happens some of the time, but outright refusals or requests for alternative schedules are rarer.

HCP respondents report that it is relatively common for patients to express reluctance about vaccines some of the time (ranging between 62% and 73% by HCP type) or more often. Having a patient refuse a vaccine or request an alternative schedule happens less commonly, with a majority of HCP respondents reporting that this occurs 'rarely' or 'never.' An exception is midwives, who are more likely to say their patients refuse a vaccine or request an alternative schedule 'some of the time' than do other HCPs.

Figure 4: How often patients are reluctant/refuse/request alternative schedule

| | Frequency | Express Reluctance | Refuse a Vaccine | Request an Alternative Schedule |
|------------------------------|------------------------|-----------------------|---------------------|---------------------------------------|
| Family Blandstone | Every/Most of the time | 9% | 2% | 3% |
| Family Physicians (n=535) | Some of the time | 62% | 36% | 34% |
| (11-333) | Rarely/Never | 29% | 62% | 63% |
| | Every/Most of the time | 19% | 2% | 10% |
| Midwives (n=297) | Some of the time | 70% | 54% | 68% |
| (11–297) | Rarely/Never | 11% | 44% | 22% |
| | Every/Most of the time | 6% | 1% | 2% |
| Nurses (n=493) | Some of the time | 63% | 39% | 33% |
| (11–435) | Rarely/Never | 30% | 60% | 65% |
| Discount to | Every/Most of the time | 6% | 3% | 3% |
| Pharmacists (n=601) | Some of the time | 66% | 41% | 30% |
| (11-001) | Rarely/Never | 28% | 57% | 67% |
| Constalling | Every/Most of the time | 5% | 0% | 1% |
| Specialists (n=78) | Some of the time | 73% | 20% | 34% |
| (11-76) | Rarely/Never | 23% | 80% | 64% |

Q5. When you recommend a vaccine or vaccines to patients, how often do they...? Base: All respondents



Patient attitudes & behaviours compared to five years ago

HCPs feel that patient vaccine reluctance/concern and mentions of incorrect vaccine information are largely the same as five years ago; specialists are most likely to feel they are seeing more of these things. Similarly, HCPs generally believe that patient expressions of support for vaccination and their knowledge of the topic has remained the same.

HCP respondents have mixed views about the change in frequency of vaccine reluctance, refusal and alternative schedule requests over the past five years. In general, HCPs are most likely to say that the frequency of these behaviours has not changed; the remainder are divided about whether they are encountering these behaviours more or less often. Small numbers of Specialists are more likely than others to say that reluctance, refusal and alternative schedule requests are happening more often; otherwise, there is no clear pattern in the results.

Figure 5: Are patients reluctant/refuse/request alternative schedule more than five years ago?

| | Sample size | Frequency | Express Reluctance | Refuse a Vaccine | Request an Alternative Schedule | | | | | | | |
|-------------------|----------------|----------------|-----------------------|------------------|---------------------------------|-----|--|--|------------|-----|-----|-----|
| | | More often | 33% | 26% | 14% | | | | | | | |
| Family Physicians | (425) | About the same | 49% | 53% | 58% | | | | | | | |
| | | Less often | 17% | 20% | 18% | | | | | | | |
| | | More often | 20% | 12% | 21% | | | | | | | |
| Midwives | (163) | About the same | 58% | 54% | 51% | | | | | | | |
| | | Less often | 23% | 29% | 21% | | | | | | | |
| | | More often | 29% | 21% | 17% | | | | | | | |
| Nurses | (365) | About the same | 53% | 52% | 48% | | | | | | | |
| | | | Less often | 18% | 24% | 24% | | | | | | |
| | | More often | 24% | 14% | 5% | | | | | | | |
| Pharmacists | (195) | About the same | 38% | 49% | 56% | | | | | | | |
| | | | | | | | | | Less often | 36% | 29% | 19% |
| | | More often | 55% | 42% | 32% | | | | | | | |
| Specialists | (66) | About the same | 37% | 38% | 42% | | | | | | | |
| | | Less often | 9% | 20% | 10% | | | | | | | |

Q6A-C. Compared to five years ago, do you find the following has been happening more often, less often, or with about the same frequency? Base: Respondents with more than five years experience administering/providing advice about vaccines.

Note: The 'Not Sure' category has been removed for clarity (results range from 0-3% for reluctance / 0-8% for refusal / 7-21% for alternative schedules).



There is also no clear consensus among HCP respondents about how often patients express strong support for vaccines compared to five years ago. Roughly half of each HCP type feels it is happening with the same frequency as before; the balance of pharmacists, nurses and midwives feel it is happening more often, while the balance of family physicians and specialists say it is happening less often.

Majorities of each HCP (with the exception of pharmacists) say that the extent to which patients seem knowledgeable about vaccines is about the same as five years ago, and most of the remainder in each case (and particularly for pharmacists) find it has been happening more often.

When asked how often patients are mentioning incorrect information compared to five years ago, it is most common for HCP respondents to say it is happening with the same frequency. Of the remainder, family physicians, nurses and specialists tend to say it is happening more often than less. It is worth noting that responses to this question are dependent on the beliefs of the HCP respondent themselves; their perception of 'incorrect information' may differ from that of the larger healthcare community.

Figure 6: Are patients expressing support/knowledgeable/mentioning incorrect information more than five years ago?

| | Sample size | Frequency | Expresses strong support | Seems knowledgeable | Mentions incorrect information |
|----------------------|----------------|----------------|--------------------------|------------------------|--------------------------------|
| | | More often | 14% | 29% | 33% |
| Family Physicians | (425) | About the same | 60% | 57% | 45% |
| i ilysicians | | Less often | 20% | 11% | 18% |
| | | More often | 27% | 23% | 14% |
| Midwives | (163) | About the same | 49% | 63% | 48% |
| | | Less often | 21% | 12% | 28% |
| | | More often | 26% | 28% | 29% |
| Nurses | (365) | About the same | 59% | 59% | 54% |
| | | Less often | 13% | 11% | 14% |
| | | More often | 31% | 41% | 25% |
| Pharmacists | (195) | About the same | 54% | 46% | 41% |
| | | Less often | 10% | 8% | 25% |
| | | More often | 22% | 23% | 52% |
| Specialists | (66) | About the same | 49% | 53% | 39% |
| | | Less often | 24% | 18% | 6% |

Q6D-F. Compared to five years ago, do you find the following has been happening more often, less often, or with about the same frequency? Base: Respondents with more than five years experience administering/providing advice about vaccines.

Note: The 'Not Sure' category has been removed for clarity (results range from 2-6% for expressing strong support / 1-7% for seeming knowledgeable / 3-10% for mentioning incorrect information).



Reasons for patient reluctance/concern about vaccines

Patient reasons for vaccine reluctance differ by HCP but are commonly issues about vaccine safety.

HCP respondents were shown a list of possible reasons why patients may not want themselves or their family members vaccinated, and asked which, if any, they have heard in the last year. In interpreting this data, it is important to consider the role of confirmation bias (both the possibility that a patient's/parent's beliefs may be a reflection of, or influenced by, the HCP respondent's beliefs or that HCPs will better recall parental concerns consistent with their own beliefs).

The top parental concerns reported by all HCP types are those related to vaccine safety, and particularly:

- Worried about specific ingredients in vaccines (e.g., mercury, thimerosal);
- Worried about possible long-term effects; and
- Know or heard of someone who had an adverse reaction to a vaccine

Significant proportions of each HCP type have also heard reasons related to under-estimating the threat of disease, lack of trust in institutions, and belief in alternative therapies. A small number of HCPs wrote in patient concerns about a specific connection to autism (as an 'other' mention); however, other HCPs may have chosen to categorize these concerns as 'heard of adverse reaction' or 'worried about possible long-term effects.' Thus, no conclusions about the extent of autism concerns can be drawn from these findings.

Midwives and specialists (who are among the most likely to administer/provide advice about infant vaccines) are more likely than others to hear patients say it is better to wait until the child is older or that too many injections are being given at one time. (This is an example of where a HCP's own set of beliefs may influence parental concerns and/or factor into how the HCP responds to this question).

Relative to other HCP types, pharmacists are more likely to hear about logistical concerns and accessibility, such as difficulties getting to the clinic and getting time off work.

Figure 7: Patient reasons selected for vaccine concern/refusal

| Reasons selected | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Concerns about vaccine safety | | | | | |
| Know or heard of someone who had an adverse reaction to a vaccine | 67% | 59% | 62% | 62% | 70% |
| Worried about specific ingredients in vaccines (e.g., mercury, thimerosal) | 62% | 84% | 61% | 54% | 69% |
| Worried about possible long-term effects | 57% | 75% | 51% | 39% | 69% |
| Worried that the vaccine will actually cause the illness it is meant to prevent | 53% | 30% | 58% | 58% | 42% |
| Think there are too many injections being given at one time | 44% | 66% | 47% | 17% | 63% |
| Worried about immediate side effects (i.e. adverse events following immunization) | 44% | 42% | 42% | 41% | 61% |



| Reasons selected | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Fear of needles/Find needles too painful | 41% | 18% | 42% | 49% | 42% |
| Think it is better to wait until child is older | 39% | 69% | 33% | 9% | 59% |
| Think there are too many antigens in vaccines | 22% | 27% | 21% | 10% | 43% |
| Under-estimating threat of disease | | | | | |
| Believe that the disease is not a big concern ("I had it when I was a kid and I'm OK") | 55% | 45% | 52% | 50% | 62% |
| Believe the vaccine is not needed anymore (as the disease is gone or almost gone) | 37% | 28% | 40% | 31% | 49% |
| Lack of trust in institutions | | | | | |
| Conspiracy theories (pharmaceutical companies and/or government) | 51% | 58% | 55% | 50% | 64% |
| Distrust of healthcare professionals | 21% | 29% | 11% | 12% | 31% |
| Beliefs in alternatives to vaccines | | | | | |
| Believe natural immunity is enough | 49% | 46% | 43% | 42% | 60% |
| Believe alternate therapies are a better choice (e.g., homeopathy) | 35% | 45% | 34% | 23% | 45% |
| Believe if other children are vaccinated their own children do not need to be | 22% | 20% | 24% | 15% | 25% |
| Concerns about vaccine effectiveness | | | | | |
| Concerned vaccines don't protect against the disease | 41% | 34% | 41% | 49% | 39% |
| Other (shown on screen) | | | | | |
| Find it difficult to get the vaccine (e.g. time off work, transportation to clinic, too busy) | 15% | 5% | 19% | 23% | 19% |
| Religious beliefs do not allow for/discourage vaccination | 11% | 13% | 12% | 8% | 16% |
| Other mentions (written in) | | | | | |
| Connection to autism | 2% | 2% | 2% | 1% | 7% |
| Financial concerns / costs | 2% | 1% | 1% | 2% | 0% |
| Weakened immune system | 1% | 1% | 1% | 0% | 0% |
| Other | 2% | 7% | 2% | 1% | 3% |
| None | 2% | 1% | 2% | 1% | 0% |

Q7. In the last year, what reason(s), if any, have patients provided as to why they do not want themselves or their family members vaccinated? Base: All respondents



Vaccine reluctance/concern by vaccine type

Patients who have concerns mostly mention the MMR/MMVR, varicella, HPV, rotavirus and herpes zoster vaccines.

HCP respondents who provide vaccines/advice for each of type of patient were asked which vaccines (if any) patients were reluctant to receive.

Infant vaccines. Family physicians, specialists and nurses were most likely to identify MMR, MMRV, varicella and rotavirus as the infant vaccines about which patients express reluctance. Substantial minorities of family physicians and specialists mentioned that patients were reluctant about all infant vaccines.

Half of all midwives involved in infant vaccines mentioned their patients were reluctant about all infant vaccines; varicella and the MMR vaccines were the two most commonly mentioned by name. A relatively small proportion of pharmacists provide vaccines/advice to infants and among this group, a wide variety of vaccines were mentioned but at relatively low levels.

Figure 8: Vaccine that patients are reluctant to receive (infant vaccines)

| Infant vaccines | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample size | (442) | (242) | (282) | (92) | (58) |
| Measles, Mumps, Rubella (MMR) | 36% | 14% | 34% | 10% | 41% |
| Measles, Mumps, Rubella, Varicella (MMRV) | 25% | 8% | 26% | 5% | 35% |
| Varicella (chickenpox) | 25% | 21% | 39% | 13% | 34% |
| Rotavirus | 14% | 7% | 26% | 2% | 24% |
| Diphtheria, tetanus, pertussis, polio, haemophilus influenzae type B (DTaP-IPV- Hib) | 8% | 9% | 8% | 7% | 20% |
| Pneumococcal | 6% | 3% | 8% | 8% | 10% |
| Diphtheria, tetanus, pertussis, hepatitis B, polio, haemophilus influenzae type (DTaP-HB-IPV-Hib) | 5% | 8% | 7% | 5% | 15% |
| Hepatitis A & B (HAHB) | 3% | 1% | 2% | 5% | 3% |
| Meningococcal | 3% | 4% | 6% | 5% | 14% |
| Hepatitis A (HA) | 2% | 1% | 4% | 4% | 3% |
| Hepatitis B (HB) | 2% | 6% | 8% | 3% | 7% |
| All infant vaccines | 26% | 50% | 17% | 16% | 33% |
| None/no patients identified specific vaccines they are reluctant to receive | 5% | 8% | 6% | 13% | 7% |
| Not sure/Not applicable | 3% | 8% | 3% | 8% | 0% |

Q8. In the last year, which of the following specific vaccines, if any, did patients say that they are reluctant to receive (for themselves or for their family members)? Base: HCPs who administer/provide advice on infant vaccines.



Child/adolescent vaccines. Across all HCP types, the HPV vaccine is the children/adolescent vaccine that patients seem most reluctant about. The MMR, MMVR and varicella vaccines are also among the more common causes of reluctance. Midwives do not commonly provide vaccines/advice to this group and thus the base size is too small to report their experiences.

Figure 9: Vaccine that patients are reluctant to receive (children/adolescent vaccines)

| Children and adolescent vaccines | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample size | (448) | (BTS) | (308) | (363) | (56) |
| Human papillomavirus (HPV) | 52% | | 66% | 35% | 60% |
| Measles, Mumps, Rubella (MMR) | 21% | | 20% | 8% | 27% |
| Measles, Mumps, Rubella, Varicella, (MMRV) | 17% | | 14% | 5% | 22% |
| Varicella (chickenpox) | 17% | | 25% | 12% | 21% |
| Tetanus, diphtheria, pertussis (Tdap) | 6% | | 5% | 5% | 11% |
| Meningococcal | 6% | | 8% | 6% | 11% |
| Diphtheria, tetanus, pertussis, polio (DTaP-IPV) / Tetanus, diphtheria, pertussis, polio (Tdap-IPV) | 4% | | 5% | 3% | 10% |
| Hepatitis B (HB) | 3% | | 7% | 5% | 8% |
| Hepatitis A (HA) | 2% | | 3% | 6% | 2% |
| Hepatitis A & B (HAHB) | 2% | | 5% | 9% | 5% |
| All children's/adolescent vaccines | 13% | | 9% | 5% | 11% |
| None/no patients identified specific vaccines they are reluctant to receive | 6% | | 7% | 13% | 4% |
| Not sure/Not applicable | 3% | | 2% | 8% | 0% |

Q8. In the last year, which of the following specific vaccines, if any, did patients say that they are reluctant to receive (for themselves or for their family members)? Base: HCPs who administer/provide advice on children/adolescent vaccines.

BTS indicates base size too small to report



Adult vaccines. The top adult vaccines about which HCP respondents consistently hear reluctance include herpes zoster (shingles), HPV and pneumococcal vaccines. The exception is midwives, who hear concerns primarily about HPV and Tdap (a new NACI recommendation for pregnancy) vaccines.

Figure 10: Vaccine that patients are reluctant to receive (adult vaccines)

| Adult vaccines | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample size | (527) | (278) | (476) | (597) | (33) |
| Herpes zoster (shingles) | 42% | 5% | 28% | 48% | 29% |
| Human papillomavirus (HPV) | 42% | 20% | 29% | 26% | 46% |
| Pneumococcal | 28% | 2% | 23% | 25% | 13% |
| Tetanus, diphtheria, pertussis (Tdap) | 11% | 17% | 15% | 6% | 18% |
| Tetanus, diphtheria (Td) | 10% | 1% | 11% | 5% | 2% |
| Hepatitis A & B (HAHB) | 8% | 1% | 8% | 13% | 7% |
| Meningococcal | 6% | 2% | 6% | 8% | 10% |
| Hepatitis A (HA) | 5% | 1% | 4% | 6% | 0% |
| Hepatitis B (HB) | 5% | 3% | 8% | 6% | 0% |
| All adult vaccines | 6% | 9% | 8% | 3% | 6% |
| None/no patients identified specific vaccines they are reluctant to receive | 7% | 11% | 10% | 17% | 7% |
| Not sure/Not applicable | 4% | 13% | 4% | 10% | 6% |

Q8. In the last year, which of the following specific vaccines, if any, did patients say that they are reluctant to receive (for themselves or for their family members)? Base: HCPs who administer/provide advice on adult vaccines.



The large majority of HCP respondents believe that patient reluctance/concern about vaccines is at least somewhat of an issue facing public health; few say it is not a very big issue or not an issue at all. Specialists are the most likely to see this as a significant public health issue (53%) while among other types of HCPs, this proportion ranges between 36-38%.

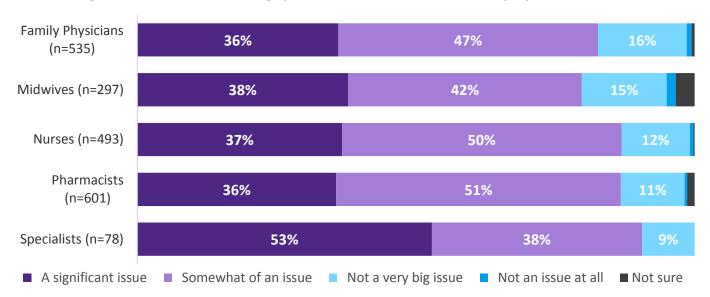


Figure 11: HCP views on how significant vaccine reluctance/concern is for public health

Q37. Overall, to what extent do you think patient reluctance/concern about vaccination is an issue facing public health today? Base: All respondents



HCP preparation for patient's concerns

In general, HCPs consider themselves at least somewhat prepared to address patients' vaccine concerns, although only a minority feel very prepared.

The large majority of HCP respondents of all types say they are at least somewhat prepared with the knowledge/skills necessary to address patient concerns about vaccines (ranging from 81 to 96 percent). Specialists (43%) and nurses (40%) are the most likely to say they are very prepared, while family physicians (28%), pharmacists (27%) and midwives (14%) are less so.

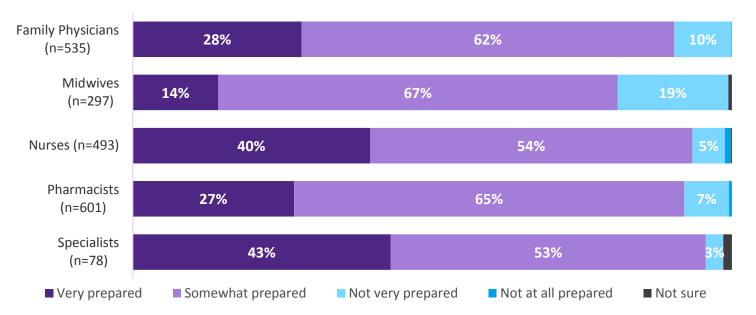


Figure 12: Preparation level to address patient's vaccine concerns

Q9. In general, to what extent do you feel prepared with the knowledge and skills necessary to address patients who have concerns about vaccines? Base: All respondents



Section 3: Personal perceptions about vaccines

HCP attitudes about vaccine safety/efficacy/concerns

Agreement is high among HCPs that the vaccines in use in Canada are safe and effective, although midwives are less certain.

HCP respondents were asked their level of agreement with seven positively-worded statements about vaccination. A broad consensus emerges among family physicians, nurses, pharmacists and specialists that the vaccines in use in Canada are safe and effective, and that they trust the recommendations of the NACI and the regulatory system for vaccines in Canada. Large majorities also agree it is important to inform patients about all vaccines recommended for their age/condition (even if not publicly funded) and to give vaccines at the recommended times (according to the provincial or territorial schedule). Very few disagree with any of these statements (ranging from 1-5%, except for midwives).

Midwives are consistently less likely to strongly agree with these statements than the other HCP groups, and in turn, are more likely to either disagree or to say they are not sure about the statements. Despite this, midwives' overall agreement (strongly and somewhat agree combined) with all these statements outweighs disagreement.

Figure 13: Level of agreement with positive statements about vaccine efficacy/safety/regulation

| % Response | | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|-----------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | <u>Response</u> | (535) | (297) | (493) | (601) | (78) |
| | Strongly Agree | 80% | 54% | 82% | 82% | 84% |
| Vaccines in use in Canada are safe | Agree (Net) | 99% | 89% | 99% | 98% | 96% |
| Vaccines in use in Canada are sale | Disagree (Net) | 1% | 5% | - | 1% | 2% |
| | Not sure | - | 6% | 1% | - | 2% |
| the state of the | Strongly Agree | 79% | 40% | 79% | 79% | 83% |
| I trust the recommendations of the | Agree (Net) | 99% | 77% | 99% | 97% | 95% |
| National Advisory Committee on Immunization | Disagree (Net) | 1% | 11% | 1% | 2% | 2% |
| immunization | Not sure | 1% | 13% | 1% | 1% | 3% |
| | Strongly Agree | 71% | 60% | 75% | 72% | 78% |
| In general, vaccines in use in Canada are | Agree (Net) | 99% | 92% | 98% | 98% | 98% |
| effective | Disagree (Net) | 1% | 3% | 1% | 1% | 2% |
| | Not sure | - | 5% | 1% | - | ı |
| I have at the at the averaging are made to a | Strongly Agree | 70% | 43% | 75% | 71% | 75% |
| I trust that the vaccine regulatory | Agree (Net) | 98% | 81% | 98% | 97% | 93% |
| system in Canada is safe and working | Disagree (Net) | 1% | 8% | 1% | 3% | 5% |
| effectively | Not sure | 2% | 11% | 1% | 1% | 2% |
| | Strongly Agree | 69% | 47% | 67% | 65% | 80% |
| Vaccines are as safe as or safer than | Agree (Net) | 94% | 77% | 94% | 94% | 94% |
| other prescription medications | Disagree (Net) | 2% | 13% | 3% | 5% | 3% |
| | Not sure | 4% | 10% | 3% | 1% | 3% |
| It is important to inform patients about | Strongly Agree | 68% | 50% | 75% | 75% | 61% |



| all vaccines recommended for their | Agree (Net) | 97% | 83% | 97% | 97% | 95% |
|---|----------------|-----|-----|-----|-----|-----|
| age/condition, even if not publicly | Disagree (Net) | 2% | 9% | 1% | 2% | 4% |
| funded | Not sure | 1% | 8% | 2% | 1% | 1% |
| | Strongly Agree | 66% | 26% | 73% | 70% | 75% |
| It is important to give vaccines at the | Agree (Net) | 98% | 71% | 98% | 98% | 97% |
| recommended times (according to the provincial or territorial schedule) | Disagree (Net) | 2% | 21% | 2% | 2% | 3% |
| provincial of territorial schedule) | Not sure | | 8% | _ | | |

Q10. To what extent do you agree or disagree with the following statements... Base: All respondents

HCP respondents were also asked about their level of agreement with four negatively-worded statements. HCPs of every type *strongly disagree* with the notion that providing the HPV vaccine to adolescents could increase their likelihood of engaging in unprotected sexual activity.

Similarly, a majority *strongly disagree* that the practice of administering multiple vaccines at a single visit could overwhelm the immune system or reduce vaccine efficacy. The exception is midwives, who are less likely to strongly disagree with these two statements (due mainly to a larger proportion who say they are not sure).

In general, HCP respondents disagree overall (strongly and somewhat combined) with the idea that the pharmaceutical industry pushes certain vaccines for profit only (ranging from 56% to 62%). Midwives are again the exception (40% disagree overall, with a higher than average proportion who did not provide an opinion).

Figure 14: Level of agreement with negative statements about vaccine efficacy/safety/regulation

| 3 | • | | | " | , , , | |
|--|-------------------|----------------------|----------|--------|-------------|-------------|
| % Response | | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
| Sample Size | <u>Response</u> | (535) | (297) | (493) | (601) | (78) |
| Administering the HPV vaccine to | Agree (net) | 6% | 8% | 7% | 13% | 8% |
| adolescents could increase their | Strongly disagree | 73% | 72% | 76% | 62% | 68% |
| likelihood of engaging in unprotected | Disagree (net) | 92% | 84% | 91% | 82% | 86% |
| sexual activity | Not sure | 2% | 9% | 2% | 5% | 6% |
| | Agree (net) | 7% | 29% | 11% | 15% | 14% |
| Administering multiple vaccines at a | Strongly disagree | 67% | 30% | 63% | 54% | 72% |
| single visit could overwhelm the | Disagree (net) | 88% | 51% | 84% | 80% | 78% |
| immune system | Not sure | 5% | 21% | 5% | 5% | 7% |
| | Agree (net) | 7% | 6% | 5% | 14% | 8% |
| Administering multiple vaccines at a | Strongly disagree | 65% | 41% | 70% | 55% | 74% |
| single visit could reduce their efficacy | Disagree (net) | 88% | 59% | 88% | 82% | 84% |
| | Not sure | 5% | 35% | 6% | 4% | 8% |
| | Agree (net) | 33% | 36% | 27% | 33% | 26% |
| The pharmaceutical industry pushes | Strongly disagree | 23% | 20% | 31% | 27% | 30% |
| certain vaccines for profit only | Disagree (net) | 56% | 40% | 62% | 59% | 57% |
| | Not sure | 11% | 24% | 11% | 9% | 17% |

Q10. To what extent do you agree or disagree with the following statements... Base: All respondents



HCP reluctance to recommend vaccines

A small proportion of HCPs say they are reluctant to recommend any vaccines.

Just over one in ten family physicians, nurses, pharmacists and specialists said they, themselves, are reluctant to administer at least one vaccine. This proportion is higher among midwives at one in three (34%).

Figure 15: Whether HCPs are reluctant to recommend any vaccines

| Reluctance to recommend vaccines | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Yes, reluctant to recommend at least one vaccine | 14% | 34% | 13% | 13% | 12% |
| Not Reluctant to recommend ANY vaccines | 77% | 47% | 80% | 69% | 73% |
| Not sure/Not applicable | 9% | 18% | 7% | 18% | 15% |

Q11. Are there any vaccines you are reluctant to recommend? Base: All respondents

HCPs who indicated they were reluctant to recommend at least one vaccine were asked which vaccine(s) this applied to and the reasons for their reluctance. Due to small sample sizes, these results have been analyzed qualitatively. The data suggests that HCP respondents are most likely to be reluctant about herpes zoster (adults) citing the level of effectiveness and expense of Zostavax vaccine, while welcoming the new Shingrix vaccine. Varicella was also discussed given the perceived lack of severity of this disease and the lifelong immunity to chickenpox after having the disease. Rotavirus (infants) was mentioned given the expense and perceived lack of necessity in an industrialized country. HPV vaccines (adults and children/adolescents) continue to be discussed for a variety of reasons, and this is thought to be because the vaccine is relatively new.



HCP understanding of recommendations

Family physicians and nurses are the most comfortable making vaccine recommendations for a broad range of patient types; midwives, pharmacists and specialists are more comfortable with their traditional patient types.

Family physicians and nurses said they are very comfortable understanding and applying recommendations for vaccines among most patient types, including infants, children, adults, seniors and individuals with chronic diseases. Specialists are most comfortable with vaccine recommendations for infants and children, pharmacists with adults and seniors, and midwives with infants and pregnant women.

In most cases, the remainder of HCPs say they are *somewhat* comfortable (rather than uncomfortable) with this role. The exceptions are the substantial minority of midwives (ranging from 40% for adults to 66% for seniors) and pharmacists (from 34% for adults to 40% for seniors) who say they are unsure how comfortable they would be for specific patient types.

HCP respondents are least comfortable in vaccine recommendations for individuals who are immunocompromised. Nearly two-thirds of family physicians and nurses (64% each) say they would be at least somewhat comfortable in this situation, while half of pharmacists and specialists say the same. A majority of midwives (62%) are unsure how comfortable they would be advising this patient type.

Figure 16: Very comfortable understanding and applying vaccine recommendations among patient groups

| % Very comfortable | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---------------------------------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Infants/young children (0-6yrs) | 66% | 47% | 54% | 13% | 73% |
| Children (7-17yrs) | 65% | 4% | 55% | 22% | 65% |
| Adults (18-64yrs) | 70% | 15% | 72% | 51% | 22% |
| Seniors (65+) | 70% | 3% | 65% | 54% | 15% |
| Pregnant women | 41% | 51% | 35% | 15% | 23% |
| Individuals with chronic diseases | 57% | 4% | 56% | 34% | 34% |
| Individuals who are immunocompromised | 26% | 1% | 25% | 11% | 18% |

Q14. How comfortable are you in understanding and applying recommendations for vaccination among the following groups? Base: All respondents



Minimum information requirements

HCPs prefer to wait for official guidance in the form of National Advisory Committee on Immunization recommendations or provincial/territorial scheduling before deciding to recommend a new vaccine.

HCP respondents were asked what minimum information they need to recommend a new vaccine before guidance is issued by the National Advisory Committee on Immunization (NACI). There is no consensus among HCPs, but they are most likely to say they would prefer to wait for the NACI recommendations or for the vaccine to be listed in their provincial/territorial schedule before recommending it.

Some family physicians and pharmacists would rely on their own reading of the scientific literature or input from colleagues. Midwives, nurses and specialists are more likely to consult with colleagues over relying on their own reading of the literature.

Figure 17: Minimum information requirements to recommend

| Minimum information needed | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Prefer to wait for recommendations from the NACI in the Canadian Immunization Guide | 41% | 27% | 36% | 46% | 33% |
| Prefer to wait until the vaccine is listed in my provincial/territorial immunization schedule or manual | 22% | 28% | 24% | 16% | 11% |
| Consult with colleagues, such as immunization experts or my local public health department | 19% | 24% | 26% | 14% | 36% |
| My own reading of the scientific literature and/or the product monograph | 14% | 5% | 9% | 20% | 12% |
| Other | 2% | 4% | 3% | 1% | 1% |
| Not sure | 2% | 12% | 2% | 3% | 6% |

Q27. When a new vaccine becomes available, but before there is guidance issued by the National Advisory Committee on Immunization in the Canadian Immunization Guide, what is the <u>minimum information</u> you need to recommend it? Base: All respondents



Section 4: Communicating with Patients

Messaging and providing advice to vaccine reluctant patients

Providing research/evidence and risk vs. benefit analyses are the messages that HCPs feel have been most effective with vaccine hesitant patients.

HCP respondents were asked about messages they had found to be particularly effective in helping vaccine hesitant patients become more comfortable with vaccinations. The messages fell into three broad categories: reinforcing the effectiveness of vaccines, addressing the concerns raised by patients and providing information.

Generally speaking, providing information, research and evidence about vaccines was the most common approach suggested by HCPs along with providing a risk vs. benefit analysis. Reinforcing the effectiveness and benefits of vaccines, both in general (they save lives) and at preventing specific diseases, were also common approaches. Relatively few HCPs use messages directed at dispelling existing myths.

Figure 18: Effective messages used by HCPs with vaccine reluctant patients (top mentions)

| Message | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Provide information (Any) | 47% | 44% | 48% | 43% | 54% |
| Provide information / research / evidence | 18% | 26% | 28% | 16% | 19% |
| Provide information: risk vs. benefit | 18% | 16% | 18% | 17% | 23% |
| Provide information: personal stories / individual examples | 14% | 6% | 7% | 7% | 16% |
| Provide information: discuss herd immunity / herd health | 3% | 10% | 6% | 10% | 3% |
| Reinforce effectiveness (Any) | 28% | 20% | 26% | 26% | 27% |
| Reinforce effectiveness: prevents diseases / specific diseases | 15% | 7% | 16% | 15% | 18% |
| Reinforce effectiveness: benefits / vaccines save lives | 13% | 6% | 9% | 9% | 9% |
| Reinforce effectiveness: protects the vulnerable (e.g. elderly, children) | 3% | 10% | 5% | 5% | 5% |
| Address concerns (Any) | 19% | 20% | 21% | 15% | 20% |
| Address concerns: reinforce safety of vaccines | 9% | 8% | 8% | 7% | 9% |
| Address concerns / answer questions | 6% | 9% | 11% | 5% | 11% |
| Address concerns: dispel myths | 3% | 4% | 2% | 2% | - |

Q16. Do you have a particularly effective message that really helps vaccine hesitant patients become more comfortable with vaccinations? Base: All respondents **NOTE**: Only options with at least 4% responses among a given HCP group are included.



Comfort administering/providing advice where a language barrier exists

HCPs are not very comfortable administering or providing advice on vaccines where language barriers exist

HCP respondents have mixed opinions about their comfort level administering or providing advice on vaccines where language barriers exist. Half or fewer or each HCP type said they are at least somewhat comfortable doing so. Nurses and family physicians reported the highest levels of comfort, while midwives and pharmacists are less comfortable. This may be explained by the typical length of time that pharmacists and midwives report having administered vaccines (these two groups are the least experienced).

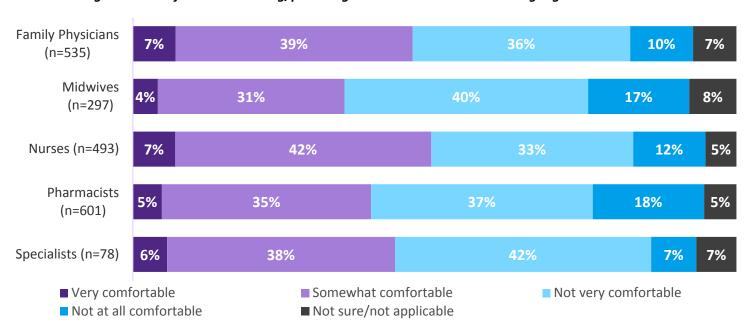


Figure 19: Comfort administering/providing advice on vaccines where language barriers exist

Q17. How comfortable are you in administering or providing advice on vaccines where language barriers exist? Base: All respondents



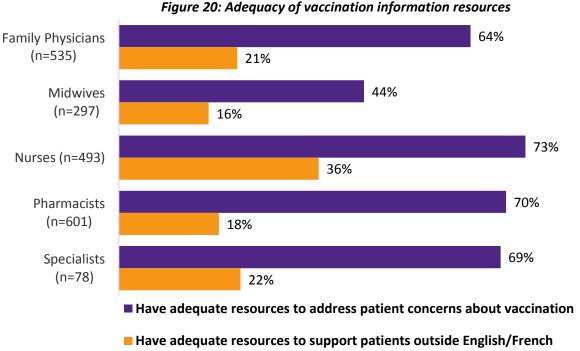
Section 5: Vaccination information resources

HCP vaccine information resource adequacy

There is a perceived lack of resources for HCPs to support patients who don't speak English or French.

Majorities of family physicians, nurses, pharmacists and specialists feel that they have adequate information resources to help them address patient concerns about vaccines. Midwives were the least likely to agree that they had adequate resources, with fewer than half (44%) saying they do.

HCP respondents were considerably less likely to say they have adequate access to resources to support patients in languages other than English or French. Nurses reported the highest access (at 36%) but only around one in five of the other HCP types said they had adequate resources in non-official languages.



Q19. Do you feel that you have adequate access to information resources that help you address patient concerns about vaccination / to support patients who do not speak English or French? Base: All respondents



Preferred source for updating own knowledge

Of the list provided, the Canadian Immunization Guide is the preferred source for all HCP types for updating their own vaccine knowledge.

HCP respondents were asked where they prefer to get information to update their own vaccination/immunization knowledge, from a list provided (note that this list did not include provincial/territorial guidance documents such as the Protocole d'immunisation du Québec, which may subsequently be reflected in the 'other resources' category).

The most commonly preferred source among each HCP group is the Canadian Immunization Guide. Statements from the National Advisory Committee on Immunization (NACI) are also preferred by a majority of each HCP group outside of midwives (of whom only 40% prefer it). Medical journals are a preferred source among a majority of family physicians, midwives and specialists. Social media was mentioned by a very small minority of HCP respondents (2-5%).

Conferences are a particular preference among specialists. Nurses are less likely to prefer professional association newsletters than other HCP groups, but more likely to prefer webinars.

Figure 21: Preferred information resources for HCPs

| Information Preference | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| The Canadian Immunization Guide | 79% | 70% | 83% | 87% | 83% |
| Statements from the National Advisory Committee on Immunization (NACI) | 68% | 40% | 66% | 71% | 76% |
| Medical journals | 59% | 57% | 39% | 43% | 68% |
| Conferences | 56% | 28% | 47% | 37% | 63% |
| Professional association newsletter | 31% | 46% | 26% | 50% | 55% |
| Webinars | 22% | 22% | 47% | 39% | 19% |
| Other resources | 12% | 15% | 22% | 10% | 6% |

Q20. In general, where do you prefer to get information to update your own vaccination/immunization knowledge? Base: All respondents. **NOTE**: Only options with greater than 5% responses among a given HCP group are included.



Awareness and use of PHAC resources

There is widespread awareness and use of the Canadian Immunization Guide; awareness and use of other resources is lower. Relatively few HCPs subscribe to CIG email updates, and the main barrier appears to be a lack of awareness of this service.

Respondents were shown thumbnail images of PHAC resources and asked if they had ever used or were aware of them.

Awareness. Awareness of existing PHAC resources varies. The Canadian Immunization Guide is the most well-known resource among each group of HCPs, with the great majority aware of it. The PHAC resource "A Parent's Guide to Vaccination" is reasonably well known among nurses and midwives, whereas less than half of family physicians, pharmacists and specialists are aware of it.

Fewer than half of each HCP type are aware of the Canada Communicable Disease Report (CCDR) Journal and the new PHAC products, "Not just for kids. An Adult Guide to Vaccination" and the "Teens, meet Vaccines" guide. Awareness of all three of these tools is higher among nurses.

Figure 22: Awareness of PHAC resources among HCPs

| % Aware of this resource | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Canadian Immunization Guide (CIG) | 88% | 77% | 89% | 91% | 89% |
| A Parent's Guide to Vaccination | 42% | 61% | 62% | 44% | 46% |
| The Canada Communicable Disease Report journal (CCDR) | 32% | 24% | 45% | 39% | 26% |
| Not just for kids. An Adult Guide to Vaccination | 29% | 19% | 41% | 33% | 18% |
| Teens, meet Vaccines (guide) | 19% | 13% | 30% | 21% | 22% |

Q21. Please indicate if/how you use each of the following PHAC resources for your own knowledge and/or in explaining vaccines to patients. Base: All respondents



Ever used. A majority of all HCP types report having used the Canadian Immunization Guide (CIG) (based on the thumbnail image); this tool is more widely used by pharmacists, nurses and family physicians. The CIG is more commonly used for keeping HCP's own knowledge up to date than to explain vaccines to patients.

The resource "A Parent's Guide to Vaccination" is most commonly used by midwives and nurses, primarily to explain vaccines to patients.

Relatively few HCP respondents have used the Canada Communicable Disease Report Journal, "Not just for kids. An Adult Guide to Vaccination," or "Teens, meet Vaccines", but all three are most widely used by nurses.

Figure 23: Usage of PHAC resources among HCPs

| | 3 3 3 | | • | | | |
|---------------------------------|--|----------------------|----------|--------|-------------|-------------|
| Resource | Usage (% among all respondents) | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
| | Sample Size | (535) | (297) | (493) | (601) | (78) |
| Canadian | % Ever Use | 73% | 56% | 78% | 79% | 64% |
| Immunization | % Use to explain vaccines to patients | 20% | 19% | 33% | 35% | 27% |
| Guide (CIG) | % For own knowledge/staying up to date | 65% | 46% | 68% | 69% | 50% |
| | % Ever Use | 23% | 44% | 39% | 24% | 27% |
| A Parent's Guide to Vaccination | % Use to explain vaccines to patients | 17% | 35% | 34% | 18% | 23% |
| to vaccination | % For own knowledge/staying up to date | 9% | 16% | 13% | 12% | 5% |
| | % Ever Use | 16% | 14% | 25% | 20% | 10% |
| The CCDR Journal | To explain vaccines to patients | 3% | 2% | 7% | 7% | 0% |
| Journal | Own knowledge/staying up to date | 14% | 13% | 21% | 17% | 10% |
| Not just for kids. | % Ever Use | 15% | 8% | 23% | 18% | 7% |
| An Adult Guide | % Use to explain vaccines to patients | 10% | 4% | 17% | 13% | 4% |
| to Vaccination | % For own knowledge/staying up to date | 7% | 5% | 11% | 12% | 3% |
| _ | % Ever Use | 9% | 4% | 15% | 11% | 10% |
| Teens, meet Vaccines (guide) | To explain vaccines to patients | 6% | 2% | 12% | 7% | 9% |
| vaccines (guide) | Own knowledge/staying up to date | 4% | 2% | 7% | 7% | 2% |

Q21. Please indicate if/how you use each of the following PHAC resources for your own knowledge and/or in explaining vaccines to patients. Base: All respondents



Frequency of use. Frequency of use of each of these resources varies considerably, when measured among HCP respondents who have ever used them. The CIG is one of the most *frequently* used resources on a monthly basis. Although relatively few family physicians make use of most of the PHAC resources outside the CIG, those who do use them make frequent use of the "Teens, meet Vaccines" guide and the "Not just for kids. An Adult Guide to Vaccination" products (just under half use each at least monthly).

Figure 24: Frequency of use of PHAC resources among HCPs

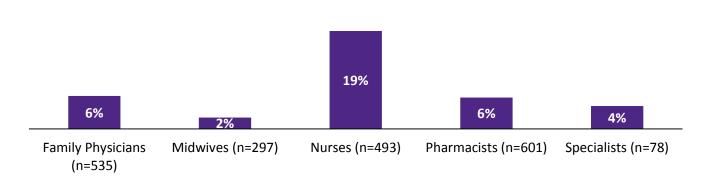
| Resource | Usage (% among all respondents) | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|----------------------------------|--------------------------------------|----------------------|----------|--------|-------------|-------------|
| Canadian | Sample size | (320) | (134) | (263) | (372) | (42) |
| Immunization Guide (CIG) | % Use this resource at least monthly | 46% | 21% | 57% | 49% | 43% |
| A Parent's Guide | Sample size | (81) | (110) | (122) | (87) | (BTS) |
| to Vaccination | % Use this resource at least monthly | 33% | 44% | 45% | 20% | |
| CCDR | Sample size | (68) | (36) | (98) | (96) | (BTS) |
| CCDK | % Use this resource at least monthly | 21% | 8% | 31% | 25% | |
| Not just for kids. | Sample size | (79) | (25) | (92) | (88) | (BTS) |
| An Adult Guide to Vaccination | % Use this resource at least monthly | 46% | 15% | 40% | 27% | |
| Teens, meet | Sample size | (55) | (BTS) | (76) | (70) | (BTS) |
| Vaccines (guide) | % Use this resource at least monthly | 47% | | 29% | 24% | |

Q22. How often do you use <resource>? Base: Respondents who have ever used the resource at Q21 (where respondents use more than two of the listed resources, they were asked about only two of them, assigned randomly). **BTS** indicates base size too small to report.



Subscribe to CIG email updates. Although a majority of each group of HCPs report using the Canadian Immunization Guide, only a small fraction subscribes to the email updates. Nurses are most likely to do so (19%).

Figure 25: Subscription to the CIG email updates among HCPs



Q25. Are you subscribed to receive email updates on the Canadian Immunization Guide? Base: All respondents



HCP respondents who do not currently subscribe to the CIG email updates were asked the main reasons why they do not (from a list provided). The top reason given is that they were unaware of the service, cited by roughly four in five non-subscribers. Relatively few give other reasons, such as not having time to read the emails/getting too much email already, that they have sufficient vaccine information or that they do plan to subscribe but just have not done so yet.

Figure 26: Reasons for not subscribing to the CIG email updates

| Reason for not subscribing | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample size | (439) | (276) | (374) | (517) | (64) |
| I was unaware of it before today | 86% | 78% | 74% | 79% | 82% |
| Don't have enough time to read it/I get too much email | 14% | 21% | 13% | 14% | 12% |
| I have enough information about vaccines/vaccination | 5% | 4% | 8% | 5% | 12% |
| Plan to subscribe but have not yet | 4% | 5% | 9% | 10% | 6% |
| I prefer other sources of information about vaccines/vaccination | 4% | 5% | 7% | 3% | 3% |
| I am not interested | 2% | 6% | 3% | 2% | 4% |
| Other | 2% | 7% | 8% | 3% | 1% |

Q26. What would you say are the main reasons you do not subscribe to this email update? Base: Respondents who do not subscribe to CIG email updates.



PHAC website and social media

Website. HCP respondents use PHAC's Immunization website for a range of purposes (asked open-ended, without providing response options). The most common theme is that HCPs are trying to locate specific information (e.g. to look up recommendations/the immunization schedule or to verify information). Some HCPs also use it to stay up to date on the most current information. Most of the HCP types use the website in broadly similar ways.

Social media. Very few HCP respondents in any group are aware that PHAC's Chief Public Health Officer has a Twitter account. Fewer than 10% of any profession indicated awareness.

Figure 27: How HCPs use the PHAC website

| Reason | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Look up recommendations / information about appropriate vaccines | 25% | 18% | 25% | 36% | 20% |
| Access current information / update myself / stay up to date | 22% | 26% | 30% | 25% | 19% |
| Verify information / confirm information | 20% | 14% | 16% | 18% | 16% |
| Access immunization information | 19% | 18% | 22% | 21% | 15% |
| Access the immunization schedule / confirm the child immunization schedule | 16% | 12% | 12% | 19% | 11% |
| Educate myself / answer my questions | 13% | 13% | 14% | 11% | 18% |
| Research / as a reference / as a resource | 12% | 23% | 23% | 17% | 11% |
| Access the Canadian Immunization Guide / CIG | 5% | 1% | 5% | 5% | 1% |
| Other | 2% | 3% | 2% | 1% | 4% |
| DK / NA | 15% | 13% | 11% | 7% | 24% |

Q35. Please finish the following sentence: I use the Public Health Agency of Canada's Immunization website to...? Base: All respondents



Use of health promotion resources and posters

HCPs typically display printed health promotional material in waiting and exam rooms; nurses and midwives are among the most likely to give them directly to patients during an office appointment or home visit. Around three-quarters or more of each HCP type say they hang health promotion or education materials in their office, clinic or waiting room.

Respondents were asked about the printed health promotion resources they use in their practice (from a list provided). A large majority of HCP respondents from each group use pamphlets, posters and fact sheets (on any topic, and not specifically vaccine-related). These resources are used in a variety of ways by the different HCP types. Family physicians, nurses and specialists are most likely to display or provide them in the waiting room. Providing them to patients during an office appointment is the most common way for midwives and nurses to use these materials, although this practice is common for a majority of each of the HCP groups outside of pharmacists. Family physicians, nurses and specialists also commonly display these materials in interview/exam rooms. Likely due to how their work is structured, nurses and midwives are relatively more likely than the other HCPs to provide printed materials to patients during group sessions or patient home visits. A minority of HCP respondents say they do not use printed health promotion resources in their practice.

Figure 28: Use of printed health promotion materials in HCP practices

| Ways of using printed promotion resources | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Displayed/provided in waiting room | 60% | 60% | 64% | 58% | 66% |
| Given to patient during office appointment | 55% | 70% | 66% | 29% | 51% |
| Displayed in interview/exam room | 47% | 34% | 58% | 20% | 48% |
| During group education sessions (e.g., prenatal class) | 9% | 19% | 23% | 9% | 3% |
| Given to patient during home visits | 3% | 34% | 22% | 5% | 1% |
| I don't use printed resources | 12% | 12% | 6% | 17% | 7% |
| Not sure/Not applicable | 4% | 2% | 4% | 9% | 7% |

Q30. This question is about the health promotion resources you use in your practice, and not just those related to vaccine information. In which of the following ways do you use printed health promotion resources (e.g. posters, pamphlets, fact sheets, or infographics) in your practice? Base: All respondents



Most HCP respondents hang health promotion or educational posters in their office, clinics and waiting rooms. This is true of a large majority of every HCP group, although the practice is least common among pharmacists (72%).

81% 83% 81% 72%

Figure 29: Hang health promotion/educational posters in office/clinic/waiting room

Family Physicians Midwives (n=297) Nurses (n=493) Pharmacists (n=601) Specialists (n=78) (n=535)

Q31. Do you hang any health promotion or educational posters in your office/clinic/waiting room? Base: All respondents



Vaccine information formats

HCPs tend to use printed vaccine materials more than digital ones. When they do use them, printed materials tend to be directed towards patients while digital tools are more commonly used for HCPs themselves. The majority of HCP types, except midwives, say they send printed vaccine materials home with patients.

Printed resources. The majority of all HCP types use printed vaccine information materials, most often for their patients or for both their patients and themselves (less commonly just for themselves). Posters, fact sheets and booklets/pamphlets are all used more often than infographs, which the majority of these HCP groups say they have not used. Midwives are less likely than other HCP types to make use of posters about vaccine information.

Figure 30: Vaccine information usage: Printed materials

| Printed Resources | Usage | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|----------------------|---------------------------------|----------------------|----------|--------|-------------|-------------|
| | Sample Size | (535) | (297) | (493) | (601) | (78) |
| | For myself only | 4% | 1% | 4% | 3% | 1% |
| Doctors | For my patients only | 42% | 32% | 40% | 43% | 44% |
| Posters | For both myself and my patients | 27% | 11% | 33% | 26% | 25% |
| | Not sure/Not applicable | 27% | 56% | 22% | 29% | 30% |
| | For myself only | 13% | 14% | 6% | 12% | 7% |
| Foot Charts | For my patients only | 26% | 16% | 24% | 21% | 27% |
| Fact Sheets | For both myself and my patients | 39% | 43% | 59% | 52% | 42% |
| | Not sure/Not applicable | 22% | 27% | 11% | 14% | 23% |
| | For myself only | 8% | 7% | 7% | 8% | 11% |
| Booklets or | For my patients only | 26% | 21% | 23% | 26% | 24% |
| pamphlets | For both myself and my patients | 43% | 48% | 55% | 49% | 43% |
| | Not sure/Not applicable | 23% | 24% | 15% | 16% | 22% |
| | For myself only | 8% | 6% | 14% | 11% | 5% |
| Infogranha | For my patients only | 9% | 7% | 8% | 10% | 6% |
| Infographs | For both myself and my patients | 17% | 18% | 23% | 19% | 13% |
| | Not sure/Not applicable | 66% | 69% | 55% | 60% | 75% |

Q32. Now thinking specifically about <u>vaccine information</u>, which of the following format(s) do you use for yourself or to provide vaccine information to your patients? Base: All respondents



Digital formats. In general, there is less reported use of digital tools compared to printed ones. The exception is online/digital resources/web portals, which are used by a majority of all HCP groups. Short videos, mobile applications and videos/films/documentaries are used by a minority of HCP respondents; nurses and pharmacists are most likely to report using them.

Notably, these digital tools are much more commonly used for the HCP themselves than are printed tools.

Figure 31: Vaccine information usage: Digital materials

| Digital Resources | Usage | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|----------------------|---------------------------------|----------------------|----------|--------|-------------|-------------|
| | Sample Size | (535) | (297) | (493) | (601) | (78) |
| Online | For myself only | 31% | 18% | 34% | 49% | 17% |
| resources / web | For my patients only | 3% | 4% | 3% | 4% | 16% |
| portals / digital | For both myself and my patients | 35% | 47% | 39% | 27% | 31% |
| resources | Not sure/Not applicable | 31% | 31% | 23% | 20% | 37% |
| | For myself only | 14% | 7% | 26% | 26% | 10% |
| Chart Walasa | For my patients only | 4% | 3% | 5% | 5% | 7% |
| Short Videos | For both myself and my patients | 9% | 11% | 14% | 12% | 8% |
| | Not sure/Not applicable | 72% | 79% | 55% | 56% | 74% |
| | For myself only | 10% | 5% | 11% | 18% | 7% |
| Mobile | For my patients only | 4% | 4% | 10% | 2% | 4% |
| Applications | For both myself and my patients | 13% | 8% | 16% | 13% | 10% |
| | Not sure/Not applicable | 73% | 83% | 63% | 67% | 79% |
| | For myself only | 12% | 10% | 27% | 26% | 10% |
| Videos / Films / | For my patients only | 4% | 1% | 2% | 2% | 5% |
| Documentaries | For both myself and my patients | 8% | 10% | 9% | 8% | 4% |
| | Not sure/Not applicable | 76% | 79% | 62% | 64% | 81% |

Q32. Now thinking specifically about <u>vaccine information</u>, which of the following format(s) do you use for yourself or to provide vaccine information to your patients? Base: All respondents

Relatively few HCP respondents in any group are aware of the free mobile vaccine app CANImmunize, offered by the Ottawa Hospital Research Institute. It is best known by nurses (36% aware).

Figure 32: Awareness of CANImmunize

| % Aware | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|-------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| CANImmunize | 16% | 9% | 36% | 19% | 27% |

Q29. Before today, did you know about the free mobile vaccine tracking app called CANImmunize (formerly ImmunizeCA)? Base: All respondents



Sending patients home with printed material about vaccination. Outside of midwives, a majority of HCP respondents regularly provide printed materials to patients to take home with information about vaccinations (such as pamphlets and fact sheets). A large majority of nurses (77%) say they do this often or sometimes, while around six in ten family physicians, pharmacists and specialists and less than half (45%) of midwives report doing so. Few HCPs in any group say they never send patients home with printed information about vaccines.

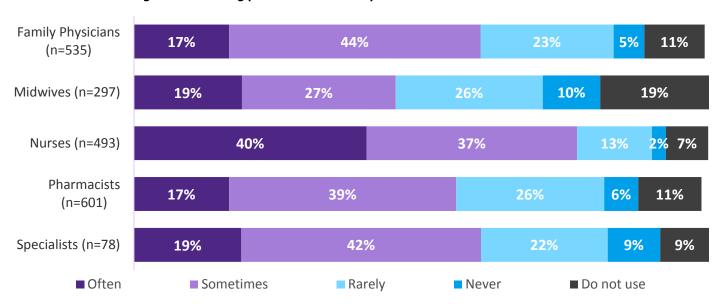


Figure 33: Sending patients home with printed material about vaccinations

Q33. How often do you send patients home with print material about vaccinations such as pamphlets or fact sheets? Base: All respondents



Social media usage by immunizers

Relatively few HCPs use social media to learn or share information about health topics such as vaccination.

Use of social media platforms to learn and share information about vaccination and other health topics is not widespread. Fewer than three in ten of any HCP type say they do so; this is more common among nurses, midwives and pharmacists. The most common platform is Facebook, while very few use Twitter or other social media platforms.

Figure 34: Social media usage to share health information

| Usage | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|---------------|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Use any (net) | 14% | 28% | 25% | 27% | 15% |
| Facebook | 10% | 24% | 20% | 21% | 9% |

Q34. What social media platform(s), if any, do you use to learn and/or share information about vaccination or other health topics? Base: All respondents



Suggestions for PHAC on how to assist HCPs

HCPs' suggestions for how PHAC can assist them in addressing patient vaccine reluctance revolve around three key themes: raising the profile of the issue, educating and informing the public, and providing access to materials.

HCP respondents were asked what PHAC can do to assist them in addressing patient reluctance about vaccinations (open-ended, without providing response options). Generally, the ideas fall into three categories. First, HCPs would like to see PHAC raise public awareness of the issue, possibly through advertising or a media campaign, or by providing social or traditional media content. A second suggestion is to educate and inform the public, by providing evidence, reinforcing the benefits of vaccines, and dispelling myths. Third, some HCPs would like printed materials or guides on the topic.

Figure 35: Suggestions for how PHAC can assist HCPs to address patient vaccine reluctance

| Suggestions | Family Physicians | Midwives | Nurses | Pharmacists | Specialists |
|--|----------------------|----------|--------|-------------|-------------|
| Sample Size | (535) | (297) | (493) | (601) | (78) |
| Provide more advertising / launch a media campaign | 12% | 2% | 5% | 13% | 8% |
| Provide education / public education | 11% | 14% | 16% | 14% | 13% |
| Provide information / science-based research / evidence / analysis | 11% | 16% | 12% | 7% | 12% |
| Provide printed materials / posters / pamphlets | 9% | 5% | 4% | 9% | 15% |
| Improve awareness / public awareness | 7% | 7% | 6% | 8% | 8% |
| Provide social media content | 7% | 4% | 9% | 7% | 6% |
| Address concerns - dispel myths | 6% | 6% | 8% | 6% | 7% |
| Address concerns / answer questions (general) | 5% | 15% | 5% | 3% | 8% |
| Reinforce effectiveness / benefits / vaccines save lives (general) | 4% | 6% | 5% | 5% | 5% |
| Provide radio / television content | 4% | 0% | 6% | 5% | 1% |
| Other | 5% | 7% | 4% | 4% | 4% |
| No / nothing / Don't know / No answer | 22% | 19% | 20% | 21% | 14% |

Q38. Based on your experience, do you have any suggestions on how the Public Health Agency of Canada can assist healthcare professionals in addressing patient reluctance about vaccination? Base: All respondents **NOTE**: Only suggestions mentioned by at least 5% of HCPs in any group are displayed.



Section 6: Conclusions

The research results indicate that Canadian healthcare professionals of all types are encountering patient reluctance around vaccines on a fairly regular basis; this appears to have translated into widespread concern about the impact on public health. HCPs are encountering the full gamut of patient concerns, including concerns about safety, lack of trust in institutions and under-estimating the threat of disease, nor are the concerns limited to only one or two vaccines. HCPs have not identified a single 'magic bullet' for addressing these concerns with patients, and their approach largely depends on the patient group and the specific concern raised.

HCPs are reasonably confident in their ability to address patient vaccine concerns, but there is room for improvement. They widely report using the Canadian Immunization Guide (CIG) to inform themselves, but few subscribe to the CIG email updates due to a lack of awareness. There is also lower awareness and use of other PHAC resources. Making HCPs more aware of these resources and promoting their usefulness for specific patient types would be of benefit by supporting HCPs and providing them with tools to help educate their patients. A perceived lack of vaccine-related resources in languages other than English and French is also a key gap worth addressing.

The different HCP types each have specific areas where they feel comfortable and have expertise with respect to vaccines. It will be challenging to build HCP's comfort level providing vaccines and advice to patient types outside their typical practice scope. Instead, the focus should be on providing supports of specific relevance to each of the health professions. This will ensure a multi-pronged approach to reaching the Canadian public at all ages and stages of life.



Appendix A: Survey questionnaire

Online Survey with Healthcare Professionals - English

E-MAIL INVITATION

Subject line: The Public Health Agency of Canada wants to hear from you about vaccination.

Dear [CONTACT],

You are invited to participate in an online survey about vaccination, an important issue facing healthcare professionals. The survey is being conducted by Environics Research, an independent research company, on behalf of the Public Health Agency of Canada.

Participants who qualify and complete the survey will receive a \$25 (CAD) Virtual Visa electronic Gift card!

The survey will take about 15 minutes to complete. You will be asked for your opinions about your experiences with vaccine practices. Your participation is voluntary and completely confidential. All your answers will remain anonymous and will be combined with responses from other participants. Please note that responses throughout the survey should NOT include personal information or information about specific cases.

If you don't have time to complete the survey in one sitting, you can return to it by clicking on the link below again. Once the survey period closes on [DATE], if you decide not to complete the entire survey, your answers will not be retained.

Please click on the following link to complete the survey in English: INSERT LINK

Please click on the following link to complete the survey in French: INSERT LINK

This survey is registered with the Marketing Research and Intelligence Association. Click here [POP-UP IN NEW BROWSER WINDOW*] to verify its authenticity.

* MRIA registration info opens in pop-up browser window

If you have any questions about the survey, please contact Sarah Roberton of Environics Research by phone (613-699-6884) or email (sarah.roberton@environics.ca) or Martine Dubuc of the Public Health Agency of Canada at phone (613-851-0281) or email (martine.dubuc2@canada.ca).

To learn more about vaccines in Canada, please visit Canada.ca/vaccines

SURVEY LANDING PAGE

Welcome and thank you for your interest in our survey.

- D1. In which province or territory do you practice?
 - 01 British Columbia
 - 02 Alberta
 - 03 Saskatchewan
 - 04 Manitoba
 - 05 Ontario
 - 06 Quebec
 - 07 New Brunswick
 - 08 Nova Scotia
 - 09 Newfoundland & Labrador
 - 10 Prince Edward Island
 - 11 Yukon
 - 12 Northwest Territories
 - 13 Nunavut
 - 98 Practising outside Canada THANK AND TERMINATE: "Thank you. We are only looking for professionals working in Canada at this time."
- D2. What is your **primary** profession?

SELECT ONE ONLY

- 01 Registered Nurse (RN)
- 02 Nurse Practitioner
- 03 Family Physician/General Practitioner
- 04 Obstetrician/Gynecologist
- 05 Paediatrician
- 06 Midwife (RM or AM)
- 07 Pharmacist
- 88 Other, please specify:

Section 1: Administering or Providing Advice on Vaccines

This survey will ask you about your day-to-day experience with your patients/clientele and vaccination. By vaccination, we mean **routine recommended vaccines**, such as DTaP-IPV and MMR for children, or pertussis and tetanus for adults. Please **exclude** travel vaccines and flu shots from your answers. Please ensure that your responses do NOT include personal information or information about specific cases.

1. Do you <u>administer</u> vaccines or <u>provide advice</u> on vaccines to patients? For the purposes of this survey, the term "patients" means your patients or clients. If a patient is a child, please think about their parents or caregivers.

01 Yes

02 No THANK AND TERMINATE: "Thank you. We are only looking for professionals who administer or provide advices on vaccines at this time."

- 2. IF Q1=01: For approximately how many years have you been administering vaccines or providing advice to your patients on vaccines?
- 01 Less than 1 year
- 02 1 to 5 years
- 03 6 to 15 years
- 04 More than 15 years
- 3. How often do you administer vaccines or provide advice about vaccines?
- 01 Daily
- 02 A few times a week
- 03 About once a week
- 04 Less often than once a week
- 4. To whom do you administer vaccines and/or provide advice on vaccines? CHECK ALL THAT APPLY
- 01 Infants/young children (0-6yrs)
- 02 Children (7-17yrs)
- 03 Adults (18-64yrs)
- 04 Seniors (65yrs+)
- 05 Pregnant women
- 99 Other (DO NOT SPECIFY)

Section 2: Vaccination Experience

- 5. When you recommend a vaccine or vaccines to patients, how often do they:
 - **RANDOMIZE**
 - a. Express reluctance, concern or hesitation about vaccination;
 - b. Refuse a vaccine altogether;
 - c. Request an alternate schedule (e.g. wishes to delay, "spread out" vaccines, or does not want to receive the recommended number of doses).

REPEAT SCALE FOR EACH OF ABOVE

- 01 Every time
- 02 Most of the time
- 03 Some of the time
- 04 Rarely
- 05 Never
- 6. ASK IF Q2>2: Compared to five years ago, do you find the following has been happening more often, less often, or with about the same frequency?

RANDOMIZE

- a. A patient expresses reluctance, concern or hesitation about vaccination
- b. A patient refuses a vaccine altogether
- c. A patient requests an alternate schedule (e.g. wishes to delay, "spread out" vaccines, or does not want to receive the recommended number of doses)
- d. A patient expresses strong support for vaccines
- e. A patient seems knowledgeable about vaccines/vaccination
- f. A patient mentions incorrect information about vaccines/vaccination

REPEAT SCALE FOR EACH OF ABOVE

- 01 More often
- 02 Less often
- 03 About the same
- 04 Not sure

7. In the last year, what reason(s), if any, have patients provided as to why they do not want themselves or their family members vaccinated?

ROTATE ORDER OF BLOCKS AND BATTERY ITEMS WITHIN EACH BLOCK. SHOW THE SECTION HEADINGS.

SELECT ALL THAT APPLY

7.1Under-estimating threat of disease

- 01 Believe the vaccine is not needed anymore (as the disease is gone or almost gone)
- 02 Believe that the disease is not a big concern ("I had it when I was a kid and I'm OK")

7.2 Concerns about vaccine safety

- 03 Think there are too many antigens in vaccines
- 04 Worried about specific ingredients in vaccines (e.g., mercury, thimerosal)
- 05 Think there are too many injections being given at one time
- 06 Think it is better to wait until child is older
- 07 Worried about immediate side effects (i.e. adverse events following immunization)
- 08 Worried about possible long term effects
- 09 Worried that the vaccine will actually cause the illness it is meant to prevent
- 10 Fear of needles/Find needles too painful
- 11 Know or heard of someone who had an adverse reaction to a vaccine

7.3 Concerns about vaccine effectiveness

12 Concerned vaccines don't protect against the disease

7.4 Beliefs in alternatives to vaccines

- 13 Believe alternate therapies are a better choice (e.g., homeopathy)
- 14 Believe natural immunity is enough
- 15 Believe if other children are vaccinated their own children do not need to be

7.5 Lack of trust in institutions

- 16 Conspiracy theories (pharmaceutical companies and/or government)
- 17 Distrust of healthcare professionals

7.6 Other

- 18 Religious beliefs do not allow for/discourage vaccination
- 19 Find it difficult to get the vaccine (e.g. time off work, transportation to clinic, too busy)
- 88 Other, please specify:
- 98 None
- 99 Not sure/Not applicable
- 7a. (IF >3 CODES SELECTED AT Q7) Of the reasons you identified in the previous question, which are the **top 3** reasons you hear most frequently from patients as to why they do not want themselves or their family members vaccinated?

PROGRAMMER NOTE: show the responses selected in Q7.

8. In the last year, which of the following specific vaccines, if any, did patients say that they are reluctant to receive (for themselves or for their family members)? SELECT ALL THAT APPLY

IF Q4= 01: Infant Vaccines

- 01 Diphtheria, tetanus, pertussis, polio, haemophilus influenzae type B (DTaP-IPV-Hib)
- 02 Diphtheria, tetanus, pertussis, hepatitis B, polio, haemophilus influenzae type (DTaP-HB-IPV-Hib)
- 03 Hepatitis A (HA)
- 04 Hepatitis B (HB)
- 05 Hepatitis A & B (HAHB)
- 06 Measles, Mumps, Rubella (MMR)
- 07 Measles, Mumps, Rubella, Varicella (MMRV)
- 08 Varicella (chickenpox)
- 09 Meningococcal
- 10 Pneumococcal
- 11 Rotavirus
- 75 All infant vaccines

IF Q4=02: Children's and Adolescent Vaccines

- 21 Diphtheria, tetanus, pertussis, polio (DTaP-IPV) / Tetanus, diphtheria, pertussis, polio (Tdap-IPV)
- 22 Tetanus, diphtheria, pertussis (Tdap)
- 23 Hepatitis A (HA)
- 24 Hepatitis B (HB)
- 25 Hepatitis A & B (HAHB)
- 26 Measles, Mumps, Rubella (MMR)
- 27 Measles, Mumps, Rubella, Varicella, (MMRV)
- 28 Varicella (chickenpox)
- 29 Meningococcal
- 30 Human papillomavirus (HPV)
- 76 All children's/adolescent vaccines

IF Q4=03/04/05: Adult Vaccines

- 31 Tetanus, diphtheria (Td)
- 32 Tetanus, diphtheria, pertussis (Tdap)
- 33 Hepatitis A (HA)
- 34 Hepatitis B (HB)
- 35 Hepatitis A & B (HAHB)
- 36 Meningococcal
- 37 Pneumococcal
- 38 Herpes zoster (shingles)
- 39 Human papillomavirus (HPV)
- 77 All adult vaccines
- 98 None/no patients identified specific vaccines they are reluctant to receive
- 99 Not sure/Not applicable

- 9. In general, to what extent do you feel prepared with the knowledge and skills necessary to address patients who have concerns about vaccines?
 - 01 Very prepared
 - 02 Somewhat prepared
 - 03 Not very prepared
 - 04 Not at all prepared
 - 99 Not sure

Section 3: Personal Perceptions about Vaccinations

10. To what extent do you agree or disagree with the following statements:

| Statement | Strongly agree (4) | Somewhat agree (3) | Somewhat disagree (2) | Strongly disagree (1) | Not sure (99) |
|----------------------------------|--------------------|--------------------|-----------------------|-----------------------|------------------|
| Vaccines in use in Canada are | agree (4) | agree (3) | uisagree (2) | uisagiee (1) | (33) |
| safe | | | | | |
| Vaccines are as safe as or safer | | | | | |
| than other prescription | | | | | |
| medications | | | | | |
| In general, vaccines in use in | | | | | |
| Canada are effective | | | | | |
| It is important to give vaccines | | | | | |
| at the recommended times | | | | | |
| (according to the provincial or | | | | | |
| territorial schedule) | | | | | |
| Administering multiple | | | | | |
| vaccines at a single visit could | | | | | |
| reduce their efficacy | | | | | |
| Administering multiple | | | | | |
| vaccines at a single visit could | | | | | |
| overwhelm the immune | | | | | |
| system | | | | | |
| I trust that the vaccine | | | | | |
| regulatory system in Canada is | | | | | |
| safe and working effectively | | | | | |
| The pharmaceutical industry | | | | | |
| pushes certain vaccines for | | | | | |
| profit only | | | | | |
| I trust the recommendations | | | | | |
| of the National Advisory | | | | | |
| Committee on Immunization | | | | | |
| Administering the HPV vaccine | | | | | |
| to adolescents could increase | | | | | |
| their likelihood of engaging in | | | | | |
| unprotected sexual activity | | | | | |
| It is important to inform | | | | | |
| patients about all vaccines | | | | | |
| recommended for their | | | | | |
| age/condition, even if not | | | | | |
| publicly funded | | | | | |

- 11. Are there any vaccines you are reluctant to recommend?
 - 01 Yes
 - 02 No (skip to question 14)
 - 99 Not sure/ Not applicable (skip to question 14)
- 12. IF Q11=01: Which vaccines are you reluctant to recommend? CHECK ALL THAT APPLY

IF Q4= 01: Infant Vaccines

- 01 Diphtheria, tetanus, pertussis, polio, haemophilus influenzae type B (DTaP-IPV-Hib)
- 02 Diphtheria, tetanus, pertussis, hepatitis B, polio, haemophilus influenzae type (DTaP-HB-IPV-Hib)
- 03 Hepatitis A (HA)
- 04 Hepatitis B (HB)
- 05 Hepatitis A & B (HAHB)
- 06 Measles, Mumps, Rubella (MMR)
- 07 Measles, Mumps, Rubella, Varicella (MMRV)
- 08 Varicella (chickenpox)
- 09 Meningococcal
- 10 Pneumococcal
- 11 Rotavirus
- 75 All infant vaccines

IF Q4=02: Children's and Adolescent Vaccines

- 21 Diphtheria, tetanus, pertussis, polio (DTaP-IPV) / Tetanus, diphtheria, pertussis, polio (Tdap-IPV)
- 22 Tetanus, diphtheria, pertussis (Tdap)
- 23 Hepatitis A (HA)
- 24 Hepatitis B (HB)
- 25 Hepatitis A & B (HAHB)
- 26 Measles, Mumps, Rubella (MMR)
- 27 Measles, Mumps, Rubella, Varicella, (MMRV)
- 28 Varicella (chickenpox)
- 29 Meningococcal
- 30 Human papillomavirus (HPV)
- 76 All children's/adolescent vaccines

IF Q4=03/04/05: Adult Vaccines

- 31 Tetanus, diphtheria (Td)
- 32 Tetanus, diphtheria, pertussis (Tdap)
- 33 Hepatitis A (HA)
- 34 Hepatitis B (HB)
- 35 Hepatitis A & B (HAHB)
- 36 Meningococcal
- 37 Pneumococcal
- 38 Herpes zoster (shingles)
- 39 Human papillomavirus (HPV)
- 77 All adult vaccines
- 99 Not sure

- 13. FOR EACH VACCINE AT Q12 TO A MAXIMUM OF THREE: What are the main reasons why you are reluctant to recommend [INSERT VACCINE NAME FROM Q12]? CHECK ALL THAT APPLY 01 Concerned about safety/potential side effects

 - 02 Concerned about vaccine effectiveness
 - 03 Do not believe they are needed (i.e. no longer see the disease it prevents)
 - 04 Not publicly funded
 - 05 Too expensive
 - 88 Other, please specify:
 - 99 Not sure
- 14. How comfortable are you in understanding and applying recommendations for vaccination among the following groups? (By recommendations, we mean those related to vaccines listed on your provincial/territorial schedule and/or in the Canadian Immunization Guide. Just a reminder that we are not referring to travel vaccines or influenza vaccines).

| Age group | Very comfortable (4) | Somewhat comfortable (3) | Not very comfortable (2) | Not at all comfortable (1) | Not sure/Not applicable (99) |
|-----------------------------|----------------------------|--------------------------|--------------------------|----------------------------|------------------------------------|
| a. Infants/young children | | | | | |
| (0-6yrs) | | | | | |
| b. Children (7-17yrs) | | | | | |
| c. Adults (18-64yrs) | | | | | |
| a. Seniors (65+) | | | | | |
| e. Pregnant women | | | | | |
| f. Individuals with chronic | | | | | |
| diseases (e.g. diabetes, | | | | | |
| asthma) | | | | | |
| g. Individuals who are | | | | | |
| immunocompromised (e.g. | | | | | |
| cancer, HIV) | | | | | |

Section 4: Communicating with Patients

The next few questions are about your experiences speaking with patients about vaccination.

- 15. <Question dropped>
- 16. Do you have a particularly effective message that really helps vaccine hesitant patients become more comfortable with vaccinations? If so, please provide details

 Note: please do not reveal any case or patient-specific details. OPEN TEXT BOX NON MANDATORY
- 17. How comfortable are you in administering or providing advice on vaccines where language barriers exist (i.e. you do not speak the language of your patient or their parent/caregiver)?
 - 01 Very Comfortable
 - 02 Somewhat comfortable
 - 03 Not very comfortable
 - 04 Not at all comfortable
 - 99 Not sure/ Not applicable
- 18. <Question dropped>

Section 5: Vaccination Information Resources

- 19. Do you feel that you have adequate access to information resources...? SHOWN IN GRID RANDOMIZE
 - a. that help you address patient concerns about vaccination
 - b. to support patients who do not speak English or French
 - 01 Yes
 - 02 No
 - 99 Not sure/Not applicable
- 20. In general, where do you prefer to get information to update your **own** vaccination/immunization knowledge? SELECT ALL THAT APPLY
 - 01 Medical journals
 - 02 Professional association newsletter
 - 03 The Canadian Immunization Guide
 - 04 Statements from the National Advisory Committee on Immunization (NACI)
 - **05 Conferences**
 - 06 Webinars
 - 07 Social media
 - 88 Other, please specify:

21. The following resources are published by the Public Health Agency of Canada. Please indicate if/how you use each of the following resources for your own knowledge and/or in explaining vaccines to patients. CHECK ALL THAT APPLY

| Resource (thumbnail images provided beside name of each resource) | I use to explain vaccines to patients (4) | I use for my own knowledge and for staying up to date (3) | I am aware of this resource but have never used [exclusive option] (2) | I am not aware of this resource [exclusive option] (1) | I'm not sure [exclusive option] (99) |
|---|---|---|--|--|--|
| a. Canadian Immunization Guide (CIG) | | | | | |
| b. A Parent's Guide to Vaccination | | | | | |
| c. Not just for kids. An Adult Guide to Vaccination | | | | | |
| d. Teens, meet Vaccines (guide) | | | | | |
| e. The Canada Communicable Disease Report journal (CCDR) | | | | | |

ASK Q22-24 SERIES FOR UP TO 2 RESOURCES USED (CODE 3-4) AT Q21 (RANDOM SELECTION):

| 22. | How often | do you use | [Q21 | RESOURCE]: | |
|-----|-----------|------------|------|------------|--|
|-----|-----------|------------|------|------------|--|

01 Daily

02 Weekly

03 Monthly

04 Less than a few times a year

- 23. What do you like about [Q21 RESOURCE]? OPEN TEXT BOX
- 24. How could [Q21 RESOURCE] be improved (i.e. what could be done differently that would make it more useful to you?) OPEN TEXT BOX

| 25. | Are you subscribed to receive email updates on the Canadian Immunization Guide? | | | | |
|-----|--|---|--|--|--|
| | 01 Yes | SKIP TO Q.27 | | | |
| | 02 No | | | | |
| | 99 Not sure | SKIP TO Q.27 | | | |
| | What would yo | ou say are the main reasons you do not subscribe to this email update? PPLY | | | |
| | 03 Plan to subs 04 I have enoug 05 I prefer othe 06 Don't have 6 | re of it before today cribe but have not yet gh information about vaccines/vaccination er sources of information about vaccines/vaccination enough time to read it/I get too much email ubscribed but did not find the information useful | | | |
| 27. | When a new vaccine becomes available, but before there is guidance issued by the National Advisory Committee on Immunization in the Canadian Immunization Guide, what is the minimum information you need to recommend it? SELECT ONE ONLY | | | | |
| | 01 In most case enough | es, my own reading of the scientific literature and/or the product monograph would be | | | |
| | 02 I prefer to co | onsult with colleagues, such as immunization experts or my local public health | | | |
| | 03 I prefer to w | rait until the vaccine is listed in my provincial/territorial immunization schedule or manual | | | |
| | 04 I prefer to w | rait for recommendations from the National Advisory Committee on Immunization in the inization Guide | | | |
| | 98 Other (speci | fy) | | | |
| | 99 Not sure | | | | |
| 28. | Before today, c Twitter accoun | lid you know that the Public Health Agency of Canada's Chief Public Health Officer has a t? | | | |
| | 01 Yes 02 No 99 Not sure | | | | |
| 29. | Before today, o ImmunizeCA)? | lid you know about the free mobile vaccine tracking app called CANImmunize (formerly | | | |
| | 01 Yes | | | | |

02 No 99 Not sure

Section 6: Preferred Format of Resources

- 30. This question is about the health promotion resources you use in your practice, and not just those related to vaccine information. In which of the following ways do you use **printed** health promotion resources (e.g. posters, pamphlets, fact sheets, or infographics) in your practice? SELECT ALL THAT APPLY
- 01 Displayed/provided in waiting room
- 02 Displayed in interview/exam room
- 03 Given to patient during office appointment
- 04 Given to patient during home visits
- 05 During group education sessions (e.g., prenatal class)
- 98 I don't use printed resources
- 99 Not sure/Not applicable
- 31. Do you hang any health promotion or educational posters in your office/clinic/waiting room?
- 01 Yes
- 02 No
- 32. Now thinking specifically about <u>vaccine information</u>, which of the following format(s) do you use for yourself or to provide vaccine information to your patients?

| | | For myself | For my | For both | Not sure / |
|-----|-----------------------------|------------|---------------|--------------|----------------|
| | | only (1) | patients only | myself and | Not applicable |
| | | | (2) | my | (99) |
| | | | | patients (3) | |
| Pri | nted resources | | | | |
| a. | Booklets or pamphlets | | | | |
| b. | Fact sheets | | | | |
| c. | Posters | | | | |
| d. | Infographs | | | | |
| Dig | ital resources | | | | |
| e. | Short videos | | | | |
| f. | Videos / Films / | | | | |
| | Documentaries | | | | |
| g. | Online resources / web | | | | |
| | portals / digital resources | | | | |
| h. | Mobile applications (e.g. | | | | |
| | CANImmunize) | | | | |

| 33. | [IF USE ANY PRINTED RESOURCES WITH PATIENTS, CODES 2 OR 3 AT 32a-d] How often do you ser | ıc |
|-----|---|----|
| | patients home with print material about vaccinations such as pamphlets or fact sheets? | |

- 01 Often
- 02 Sometimes
- 03 Rarely
- 04 Never
- 99 Not sure

| 3 | 4. What social media platform(s), if any, do you use to learn and/or share information about vaccination or other health topics? |
|---|--|
| | CHECK ALL THAT APPLY |
| | 01 Twitter |
| | 02 Facebook |
| | 03 LinkedIn |
| | 04 Instagram |
| | 88 Other, please specify: |
| | 99 I do not use any social media platforms for this purpose |
| | |
| | |

35. Please finish the following sentence:

I use the Public Health Agency of Canada's Immunization website to.... OPEN TEXT BOX - NON MANDATORY

36. <Question dropped>

Section 7: Final thoughts

- 37. Overall, to what extent do you think patient reluctance/concern about vaccination is an issue facing public health today?
- 01 A significant issue
- 02 Somewhat of an issue
- 03 Not a very big issue
- 04 Not an issue at all
- 99 Not sure
- 38. Based on your experience, do you have any suggestions on how the Public Health Agency of Canada can assist healthcare professionals in addressing patient reluctance about vaccination?

 OPEN TEXT BOX NON MANDATORY
- 39. Do you have any final comments about anything discussed in this survey?

 OPEN TEXT BOX (DO NOT CODE PROVIDE VERBATIMS ONLY) NON MANDATORY

Section 8: Respondent Characteristics

The following are questions to help us to group the results. Your responses will be anonymous and kept strictly confidential.

- D3. What type of setting best describes your *primary* place of practice? SELECT ONE ONLY
 - 01 Paediatric hospital setting
 - 02 Other hospital setting
 - 03 Family medicine clinic
 - 04 Public Health clinic/setting
 - 06 Long term care residence
 - 07 Homecare setting
 - 08 Pharmacy
 - 09 School setting
 - 88 Other (DO NOT SPECIFY)
- D4. Which of the following best describes the area where your primary place of practice is located?
 - 01 Large urban population centre (>100,000 individuals)
 - 02 Medium population centre (30,000 to 100,000 individuals)
 - 03 Small population centre (1000 to 29,999 individuals)
 - 04 Rural location
 - 05 First Nations community (on-reserve)

| D5. What are the first three digits of the postal code of your primary place of practice? |
|---|
| |
| 999 999 – Prefer not to answer |

D6. Would you consent to being contacted on occasion by the Public Health Agency of Canada to provide your views on the development of new or updated vaccination education and/or awareness products?

01 Yes 02 No

Thank you for taking the time to participate in this survey. Please click on the Submit button to register your answers. You will receive your incentive payment once the study is complete (January 2018) . SURVEY REDIRECTS TO http://environicsresearch.com/

Sondage auprès les professionnels de la santé - français

E-MAIL INVITATION

Objet: L'Agence de la santé publique du Canada veut vous entendre au sujet de la vaccination!

Madame [CONTACT], Monsieur [CONTACT],

Nous vous invitons à prendre part à un sondage en ligne portant sur la vaccination, un important enjeu touchant les professionnels de la santé. Ce sondage est mené par Environics Research, une société de recherche indépendante, pour le compte de l'Agence de la santé publique du Canada.

Les participants qui sont admissibles au sondage et y répondent en entier recevront une carte-cadeau électronique Visa de 25 \$ CA.

Le sondage durera environ 15 minutes et permettra de recueillir votre opinion au sujet de votre expérience des pratiques de vaccination. Votre participation est volontaire et entièrement confidentielle. Toutes vos réponses demeureront anonymes et seront combinées à celles des autres participants. Veuillez également noter que vous n'aurez PAS à inclure de renseignements personnels ou d'informations relatives à des cas précis dans vos réponses au sondage.

Si vous n'avez pas le temps de remplir le sondage en une seule séance, vous pourrez y retourner en cliquant sur le lien ci-dessous à nouveau. Si, à l'échéance de la période du sondage, le [DATE], vous n'avez toujours pas répondu au sondage en entier, vos réponses ne seront pas retenues.

Pour répondre à ce sondage en anglais, veuillez cliquer sur le lien suivant : INSERT LINK

Pour répondre à ce sondage en français, veuillez cliquer sur le lien suivant : INSERT LINK

Ce sondage est enregistré auprès de l'Association de la recherche et de l'intelligence marketing (ARIM). Veuillez cliquer ici [POP-UP IN NEW BROWSER WINDOW*] afin de vérifier son authenticité.

* MRIA registration info opens in pop-up browser window

Pour toute question au sujet de ce sondage, veuillez communiquer avec Sarah Roberton d'Environics Research, par téléphone (613 699-6884) ou par courriel (sarah.roberton@environics.ca) ou avec Martine Dubuc de l'Agence de la santé publique du Canada, par téléphone (613 851-0281) ou par courriel (martine.dubuc2@canada.ca).

Pour en apprendre davantage sur les vaccins au Canada, rendez-vous à l'adresse Canada.ca/vaccins.

SURVEY LANDING PAGE

Bienvenue et merci de l'intérêt que vous portez à ce sondage.

- D1. Dans quelle province ou quel territoire travaillez-vous?
 - 01 Colombie-Britannique
 - 02 Alberta
 - 03 Saskatchewan
 - 04 Manitoba
 - 05 Ontario
 - 06 Québec
 - 07 Nouveau-Brunswick
 - 08 Nouvelle-Écosse
 - 09 Terre-Neuve-et-Labrador
 - 10 Île-du-Prince-Édouard
 - 11 Yukon
 - 12 Territoires du Nord-Ouest
 - 13 Nunavut
 - 98 Je travaille à l'extérieur du Canada THANK AND TERMINATE : « Merci. Nous recherchons pour le moment des professionnels travaillant au Canada. »
- D2. Quelle est votre principale profession?

VEUILLEZ SÉLECTIONNER UNE SEULE RÉPONSE.

- 01 Infirmier(ère) autorisé(e)
- 02 Infirmier(ère) praticien(ne)
- 03 Médecin de famille ou omnipraticien(ne)
- 04 Obstétricien(ne) ou gynécologue
- 05 Pédiatre
- 06 Sage-femme (sage-femme autorisée ou sage-femme autochtone)
- 07 Pharmacien(ne)
- 88 Autre (veuillez préciser) :

Section 1: Administering or Providing Advice on Vaccines

Ce sondage porte sur ce que vous vivez quotidiennement avec vos patients ou vos clients en ce qui a trait à la vaccination. Par « vaccination », nous entendons l'administration des vaccins systématiquement recommandés, comme les vaccins dcaT-VPI et ROR pour les enfants, ou ceux contre la coqueluche et le tétanos pour les adultes. Veuillez exclure de vos réponses les vaccins de voyage et antigrippaux, et vous assurer qu'elles ne contiennent AUCUN renseignement personnel ou portant sur des cas précis.

- 1. <u>Administrez-vous</u> des vaccins ou <u>donnez-vous des conseils</u> sur les vaccins à vos patients? Pour les besoins de ce sondage, le terme « patients » désigne vos patients ou clients. Si un patient donné est un enfant, veuillez songer à ses parents ou à ses fournisseurs de soins.
 - 01 Oui
- 02 Non THANK AND TERMINATE: « Merci. Nous sommes à la recherche de professionnels qui administrent des vaccins ou donnent des conseils sur les vaccins pour le moment. »

- 2. IF Q1=01: Depuis environ combien d'années administrez-vous des vaccins ou donnez-vous des conseils sur les vaccins à vos patients?
 - 01 Moins de 1 an 02 1 à 5 ans 03 6 à 15 ans 04 Plus de 15 ans
- 3. À quelle fréquence administrez-vous des vaccins ou donnez-vous des conseils sur les vaccins?
 - 01 Tous les jours
 - 02 Quelques fois par semaine
 - 03 Environ une fois par semaine
 - 04 Moins d'une fois par semaine
- 4. À qui administrez-vous des vaccins ou donnez-vous des conseils sur les vaccins? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.
 - 01 Nourrissons et jeunes enfants (de 0 à 6 ans)
 - 02 Enfants (de 7 à 17 ans)
 - 03 Adultes (de 18 à 64 ans)
 - 04 Aînés (65 ans et plus)
 - 05 Femmes enceintes
 - 99 Autre (NE PAS PRÉCISER)

Section 2: Vaccination Experience

5. Pensez aux moments où vous recommandez un ou des vaccins à vos patients; à quelle fréquence est-ce que ces derniers...?

RANDOMIZE

- b. Expriment certaines réticences, préoccupations ou hésitations à l'égard de la vaccination
- c. Refusent catégoriquement un vaccin
- d. Demandent des modifications au calendrier prévu (p. ex., souhaitent retarder ou « étaler » les vaccins, ou ne veulent pas recevoir le nombre recommandé de doses)

REPEAT SCALE FOR EACH OF ABOVE

- 01 Toujours
- 02 La plupart du temps
- 03 Parfois
- 04 Rarement
- 05 Jamais
- 6. ASK IF Q2>2: Trouvez-vous que les situations ci-dessous se produisent plus souvent, moins souvent ou à peu près à la même fréquence qu'il y a cinq ans?

RANDOMIZE

- g. Un patient exprime certaines réticences, préoccupations ou hésitations à l'égard de la vaccination
- e. Un patient refuse catégoriquement un vaccin
- f. Un patient demande des modifications au calendrier prévu (p. ex., souhaite retarder ou « étaler » les vaccins, ou ne veut pas recevoir le nombre recommandé de doses)
- h. Un patient fait part de son appui ferme à l'égard des vaccins
- i. Un patient semble bien connaître les vaccins ou la vaccination
- j. Un patient mentionne des informations erronées sur les vaccins ou la vaccination

REPEAT SCALE FOR EACH OF ABOVE

- 01 Plus souvent
- 02 Moins souvent
- 03 À peu près à la même fréquence
- 04 Incertain(e)

- 7. Au cours de la dernière année, quelles raisons, s'il y a lieu, ont été fournies par les patients pour expliquer pourquoi ils refusent que des membres de leur famille ou eux-mêmes se fassent vacciner?

 ROTATE ORDER OF BLOCKS AND BATTERY ITEMS WITHIN EACH BLOCK. SHOW THE SECTION HEADINGS.

 VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.
- 7.1 Mauvaise estimation de la menace posée par la maladie
 - 01 Croient que le vaccin n'est plus nécessaire (puisque la maladie a disparu ou presque)
 - 02 Croient que la maladie n'est pas vraiment préoccupante (« Je l'ai eue lorsque j'étais enfant, et je me porte bien »)
- 7.2 Préoccupations au sujet de l'innocuité des vaccins
 - 03 Croient qu'il y a trop d'antigènes dans les vaccins
 - 04 S'inquiètent de certains ingrédients précis contenus dans les vaccins (p. ex., le mercure, le thimérosal)
 - 05 Estiment que trop d'injections sont administrées en même temps
 - 06 Croient qu'il est préférable d'attendre que l'enfant soit plus âgé
 - 07 S'inquiètent des effets secondaires immédiats (c.-à-d. des événements indésirables qui surviennent après la vaccination)
 - 08 S'inquiètent des effets à long terme possibles
 - 09 S'inquiètent du fait que le vaccin provoque la maladie qu'il doit prévenir
 - 10 Ont peur des aiguilles ou les trouvent trop douloureuses
 - 11 Connaissent ou ont entendu parler de quelqu'un ayant ressenti un effet indésirable à la suite de l'administration d'un vaccin
- 7.3 Préoccupations au sujet de l'efficacité des vaccins
 - 12 S'inquiètent du fait que les vaccins ne protègent pas des maladies
- 7.4 Croyance dans des solutions de rechange aux vaccins
 - 13 Croient que les traitements non conventionnels représentent un meilleur choix (p. ex., l'homéopathie)
 - 14 Croient que l'immunité naturelle est suffisante
 - 15 Croient que si les autres enfants sont vaccinés, leur propre enfant n'a pas à l'être
- 7.5 Méfiance à l'égard des institutions
 - 16 Croient aux théories du complot (sociétés pharmaceutiques ou gouvernement)
 - 17 Se méfient des professionnels de la santé
- 7.6 Autre
 - 18 Ont des croyances religieuses qui ne permettent pas ou qui découragent la vaccination
 - 19 Trouvent difficile le fait recevoir un vaccin (p. ex., doivent prendre congé du travail ou se rendre à la clinique, sont trop occupés)
- 88 Autre (veuillez préciser) :
- 98 Aucune
- 99 Incertain(e)/sans objet
- 7a. (IF >3 CODES SELECTED AT Q7) Parmi les raisons que vous avez indiquées à la question précédente, quelles sont les 3 les plus fréquemment mentionnées par vos patients pour expliquer pourquoi ils refusent que des membres de leur famille ou eux-mêmes se fassent vacciner?

 PROGRAMMER NOTE: show the responses selected in Q7.

8. Parmi les vaccins contre les affections suivantes, lesquels vos patients se sont-ils montrés réticents à recevoir, pour eux-mêmes ou pour des membres de leur famille, au cours de la dernière année? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.

IF Q4= 01: Infant Vaccines

- 01 Diphtérie, tétanos, coqueluche, poliomyélite et haemophilus influenzae de type b (DTCa-VPI-Hib)
- 02 Diphtérie, tétanos, coqueluche, hépatite B, poliomyélite et haemophilus influenzae de type b (DTCa-HB-VPI-Hib)
- 03 Hépatite A (HA)
- 04 Hépatite B (HB)
- 05 Hépatites A et B (HAHB)
- 06 Rougeole, oreillons, rubéole (ROR)
- 07 Rougeole, oreillons, rubéole, varicelle (RORV)
- 08 Varicelle (picote)
- 09 Méningococcie
- 10 Pneumococcie
- 11 Rotavirus
- 75 Tous les vaccins pour nourrissons

IF Q4=02: Children's and Adolescent Vaccines

- 21 Diphtérie, tétanos, coqueluche, poliomyélite (DTCa-VPI)/tétanos, diphtérie, coqueluche, poliomyélite (DTCa-VPI)
- 22 Tétanos, diphtérie, coqueluche (dcaT)
- 23 Hépatite A (HA)
- 24 Hépatite B (HB)
- 25 Hépatites A et B (HAHB)
- 26 Rougeole, oreillons, rubéole (ROR)
- 27 Rougeole, oreillons, rubéole, varicelle (RORV)
- 28 Varicelle (picote)
- 29 Méningococcie
- 30 Virus du papillome humain (VPH)
- 76 Tous les vaccins pour enfants ou adolescents

IF Q4=03/04/05: Adult Vaccines

- 31 Tétanos, diphtérie (dT)
- 32 Tétanos, diphtérie, coqueluche (dcaT)
- 33 Hépatite A (HA)
- 34 Hépatite B (HB)
- 35 Hépatites A et B (HAHB)
- 36 Méningococcie
- 37 Pneumococcie
- 38 Herpès zoster (zona)
- 39 Virus du papillome humain (VPH)
- 77 Tous les vaccins pour adultes
- 98 Aucun/aucun patient ne s'est montré réticent à recevoir un vaccin précis
- 99 Incertain(e)/sans objet

- 9. En général, dans quelle mesure avez-vous l'impression d'être préparé(e) à répondre, sur la base de vos connaissances et compétences, à vos patients qui expriment des préoccupations à l'égard des vaccins?
 - 01 Très préparé(e)
 - 02 Plutôt préparé(e)
 - 03 Pas très préparé(e)
 - 04 Pas du tout préparé(e)
 - 99 Incertain(e)

Section 3: Personal Perceptions about Vaccinations

10. Dans quelle mesure êtes-vous en accord ou en désaccord avec les énoncés suivants?

| Énoncés | Fortement en accord (4) | Plutôt en accord (3) | Plutôt en désaccord (2) | Fortement en désaccord | Incertain(e) (99) |
|---|----------------------------|----------------------|----------------------------|---------------------------|----------------------|
| | | | | (1) | |
| a. Les vaccins utilisés au Canada sont sécuritaires | | | | | |
| b. Les vaccins sont aussi sécuritaires, ou même plus sécuritaires, que d'autres médicaments d'ordonnance | | | | | |
| c. En général, les vaccins utilisés au Canada sont efficaces | | | | | |
| d. Il est important d'administrer les vaccins aux moments recommandés (selon le calendrier provincial ou territorial) | | | | | |
| e. L'administration de plusieurs vaccins au cours d'une même visite pourrait réduire leur efficacité | | | | | |
| f. L'administration de plusieurs vaccins au cours d'une même visite pourrait surcharger le système immunitaire | | | | | |
| g. Je suis convaincu(e) que le système de réglementation des vaccins au Canada est sécuritaire et efficace | | | | | |
| h. Le secteur pharmaceutique fait la promotion de certains vaccins dans un but de profit uniquement | | | | | |
| i. Je fais confiance aux recommandations du Comité consultatif national de l'immunisation | | | | | |
| j. L'administration du vaccin contre le VPH aux adolescents pourrait accroître la probabilité qu'ils se livrent à des activités sexuelles non protégées | | | | | |
| k. Il est important d'informer les patients à propos de tous les vaccins, même ceux qui ne sont pas remboursés par le régime public, recommandés pour leur âge et leur condition physique | | | | | |

- 11. Y a-t-il certains vaccins que vous êtes réticent(e) à recommander?
 - 01 Oui
 - 02 Non (skip to question 14)
 - 99 Incertain(e)/sans objet (skip to question 14)
- 12. IF Q11=01: Quels vaccins êtes-vous réticent(e) à recommander? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.

IF Q4= 01: Infant Vaccines

- 01 Diphtérie, tétanos, coqueluche, poliomyélite et haemophilus influenzae de type b (DTCa-VPI-Hib)
- 02 Diphtérie, tétanos, coqueluche, hépatite B, poliomyélite et haemophilus influenzae de type b (DTCa-HB-
- VPI-Hib)
- 03 Hépatite A (HA)
- 04 Hépatite B (HB)
- 05 Hépatites A et B (HAHB)
- 06 Rougeole, oreillons, rubéole (ROR)
- 07 Rougeole, oreillons, rubéole, varicelle (RORV)
- 08 Varicelle (picote)
- 09 Méningococcie
- 10 Pneumococcie
- 11 Rotavirus
- 75 Tous les vaccins pour nourrissons

IF Q4=02: Children's and Adolescent Vaccines

- 21 Diphtérie, tétanos, coqueluche, poliomyélite (DTCa-VPI)/tétanos, diphtérie, coqueluche, poliomyélite (DTCa-VPI)
- 22 Tétanos, diphtérie, coqueluche (dcaT)
- 23 Hépatite A (HA)
- 24 Hépatite B (HB)
- 25 Hépatites A et B (HAHB)
- 26 Rougeole, oreillons, rubéole (ROR)
- 27 Rougeole, oreillons, rubéole, varicelle (RORV)
- 28 Varicelle (picote)
- 29 Méningococcie
- 30 Virus du papillome humain (VPH)
- 76 Tous les vaccins pour enfants ou adolescents

IF Q4=03/04/05: Adult Vaccines

- 31 Tétanos, diphtérie (dT)
- 32 Tétanos, diphtérie, coqueluche (dcaT)
- 33 Hépatite A (HA)
- 34 Hépatite B (HB)
- 35 Hépatites A et B (HAHB)
- 36 Méningococcie
- 37 Pneumococcie
- 38 Herpès zoster (zona)
- 39 Virus du papillome humain (VPH)
- 77 Tous les vaccins pour adultes
- 99 Incertain(e)

| 13. | FOR EACH VACCINE AT Q12 TO A MAXIMUM OF THREE: Quelles sont les principales raisons pour lesquelles |
|-----|---|
| | vous êtes réticent(e) à recommander le vaccin contre l'/le/la [INSERT VACCINE NAME FROM Q12]? |
| | VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT. |
| | |

01 Son innocuité et ses effets secondaires potentiels me préoccupent

02 L'efficacité du vaccin me préoccupe

03 Je ne crois pas qu'il soit nécessaire (c.-à-d. que je ne vois plus de cas de la maladie qu'il prévient)

04 Il n'est pas remboursé par le régime public

05 Il est trop cher

88 Autre (veuillez préciser) :

99 Incertain(e)

14. Dans quelle mesure êtes-vous à l'aise de comprendre et d'appliquer les recommandations en matière de vaccination chez les groupes suivants? (Par « recommandations », nous entendons les recommandations en matière de vaccins présentées dans votre calendrier de vaccination provincial ou territorial, ou dans le Guide canadien d'immunisation. Rappelez-vous que nous ne faisons pas référence aux vaccins de voyage ou antigrippaux.)

| | Très à l'aise | Plutôt à | Pas très à | Pas du tout | Incertain(e)/sans |
|----------------------------------|---------------|------------|------------|--------------|-------------------|
| Groupes d'âge | (4) | l'aise (3) | l'aise (2) | à l'aise (1) | objet (99) |
| a. Nourrissons et jeunes enfants | | | | | |
| (de 0 à 6 ans) | | | | | |
| b. Enfants (de 7 à 17 ans) | | | | | |
| c. Adultes (de 18 à 64 ans) | | | | | |
| g. Aînés (65 ans et plus) | | | | | |
| e. Femmes enceintes | | | | | |
| f. Individus souffrant de | | | | | |
| maladies chroniques (p. ex., | | | | | |
| diabète, asthme) | | | | | |
| g. Individus immunovulnérables | | | | | |
| (p. ex., cancer, VIH) | | | | | |

Section 4: Communicating with Patients

Les prochaines questions portent sur ce que vous vivez lorsque vous parlez à vos patients de la vaccination.

- 15. <Question abandonnée>
- 16. Avez-vous pour ces patients qui se montrent réticents aux vaccins un message qui les amène vraiment à être plus à l'aise avec l'idée de se faire vacciner?

Remarque : Veuillez vous assurer de ne dévoiler aucune information relative à un cas ou à un patient précis.

OPEN TEXT BOX - NON MANDATORY

17. Dans quelle mesure êtes-vous à l'aise d'administrer des vaccins ou de donner des conseils sur les vaccins dans des situations où vous vous heurtez à une barrière linguistique (c.-à-d. que vous ne parlez pas la même langue que votre patient ou que ses parents ou fournisseurs de soins)?

01 Très à l'aise 02 Plutôt à l'aise 03 Pas très à l'aise 04 Pas du tout à l'aise 99 Incertain(e)/sans objet

18. <Question abandonnée>

Section 5: Vaccination Information Resources

- 19. Avez-vous l'impression que vous disposez d'un accès adéquat aux ressources d'information qui...? SHOWN IN GRID RANDOMIZE
 - a. vous aident à répondre aux préoccupations de vos patients à propos de la vaccination
 - b. soutiennent les patients qui ne parlent ni anglais, ni français
 - 01 Oui
 - 02 Non
 - 100 Incertain(e)/sans objet
- 20. En général, de quelles sources préférez-vous obtenir de l'information vous permettant de mettre à jour vos propres connaissances sur la vaccination ou l'immunisation? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.
 - 01 Revues médicales
 - 02 Infolettre d'une association professionnelle
 - 03 Guide canadien d'immunisation
 - 04 Énoncés du Comité consultatif national de l'immunisation (CCNI)
 - 05 Conférences
 - 06 Webinaires
 - 07 Médias sociaux
 - 88 Autre (veuillez préciser) :

21. Les ressources suivantes sont publiées par l'Agence de la santé publique du Canada. Veuillez indiquer si vous utilisez chacune de ces ressources pour accroître vos propres connaissances ou pour expliquer la vaccination à vos patients, et la façon dont vous les utilisez.

VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.

| | Je l'utilise | Je l'utilise | Je connais cette | Je ne connais | Je ne suis |
|---|----------------|-----------------|--------------------|---------------|------------|
| Ressources | pour expliquer | pour accroître | ressource, mais | pas cette | pas |
| (thumbnail images provided beside | les vaccins à | et tenir à jour | je ne l'ai jamais | ressource | certain(e) |
| name of each resource) | mes patients | mes propres | utilisée | [exclusive | [exclusive |
| | (4) | connaissances | [exclusive option] | option] | option] |
| | | (3) | (2) | (1) | (99) |
| f. Guide canadien d'immunisation (GCI) | | | | | |
| g. Guide sur la vaccination à l'intention | | | | | |
| des parents | | | | | |
| h. Pas juste pour les enfants. Guide de | | | | | |
| vaccination pour les adultes | | | | | |
| i. Vaccins. Allô les ados! (guide) | | | | | |
| j. Relevé des maladies transmissibles | | | | | |
| au Canada (RMTC) | | | | | |

ASK Q22-24 SERIES FOR UP TO 2 RESOURCES USED (CODE 3-4) AT Q21 (RANDOM SELECTION):

- 22. À quelle fréquence utilisez-vous la ressource [Q21 RESOURCE]?
 - 01 Tous les jours
 - 02 Toutes les semaines
 - 03 Tous les mois
 - 04 Moins que quelques fois par année
- 23. Qu'est-ce que vous aimez de la ressource [Q21 RESOURCE]? OPEN TEXT BOX
- 24. Comment la ressource [Q21 RESOURCE] pourrait-elle être améliorée (c.-à-d., qu'est-ce qui pourrait être fait différemment pour vous la rendre plus utile)? OPEN TEXT BOX

| 25. Êtes | -vous inscrit(e) pour recevoir des mises à jour par courriel au sujet du Guide canadien d'immunisation? |
|------------------|---|
| | 01 Oui SKIP TO Q.27 02 Non |
| | 99 Incertain(e) SKIP TO Q.27 |
| | otre avis, quelles sont les principales raisons pour lesquelles vous n'êtes pas inscrit(e) pour recevoir ces es à jour par courriel? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT. |
| ((((| 01 Cela ne m'intéresse pas 02 Je ne savais pas que cela existait avant aujourd'hui 03 J'ai l'intention de m'inscrire, mais je ne l'ai pas encore fait 04 Je dispose de suffisamment d'informations sur les vaccins ou la vaccination 05 Je préfère d'autres sources d'information sur les vaccins ou la vaccination 06 Je n'ai pas le temps de les lire/je reçois trop de courriels 07 J'étais inscrit(e) auparavant, mais je ne trouvais pas les informations utiles 88 Autre (veuillez préciser): |
| natio | qu'un nouveau vaccin est offert avant que des lignes directrices ne soient émises par le Comité consultatif onal de l'immunisation par l'entremise du Guide canadien d'immunisation, quel est le <u>minimum</u> formation dont vous avez besoin pour le recommander? VEUILLEZ SÉLECTIONNER UNE SEULE RÉPONSE |
| | 01 La plupart du temps, ma propre lecture de la documentation scientifique ou de la monographie de produit me suffit |
| | 02 Je préfère consulter mes collègues, comme des experts en immunisation ou le personnel d'un service local de santé publique |
| | 03 Je préfère attendre que le vaccin soit inscrit au calendrier ou au guide provincial ou territorial de vaccination |
| (| 04 Je préfère attendre la publication des recommandations du Comité consultatif national de |

28. Avant aujourd'hui, saviez-vous que l'administratrice en chef de la santé publique du Canada avait un compte

29. Avant aujourd'hui, connaissiez-vous l'application mobile gratuite de suivi des vaccins appelée CANImmunize

l'immunisation dans le Guide canadien d'immunisation

98 Autre (veuillez préciser)

(auparavant nommée ImmunizeCA)?

99 Incertain(e)

99 Incertain(e)

99 Incertain(e)

Twitter?

01 Oui 02 Non

01 Oui 02 Non

Section 6: Preferred Format of Resources

- 30. La présente question porte sur les ressources de promotion de la santé que vous utilisez dans le cadre de votre travail, et non uniquement sur celles liées aux vaccins. Desquelles des façons suivantes utilisez-vous les ressources de promotion de la santé **imprimées** (p. ex., affiches, brochures, fiches d'information ou documents infographiques) dans le cadre de votre travail? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT.
 - 01 Elles sont exposées ou fournies dans la salle d'attente
 - 02 Elles sont exposées dans mon bureau ou dans la salle d'examen
 - 03 Elles sont données aux patients durant la consultation en cabinet
 - 04 Elles sont données aux patients durant les visites à domicile
 - 05 Elles sont fournies durant les séances éducatives de groupe (p. ex., les cours prénataux)
 - 98 Je n'utilise pas de ressources imprimées
 - 99 Incertain(e)/sans objet
- 31. Apposez-vous des affiches éducatives ou de promotion de la santé dans votre cabinet, clinique ou salle d'attente?

01 Oui

02 Non

32. Pensez maintenant précisément à <u>l'information sur les vaccins</u>; lesquels de ces formats utilisez-vous pour vous-même ou pour fournir de l'information sur les vaccins à vos patients?

| | Pour moi- même uniquement (1) | Pour mes patients uniquement (2) | Pour mes patients et moi-même (3) | Incertain(e)/ sans objet (99) |
|---|--|---|--|-------------------------------------|
| Ressources imprimées | | | | |
| i. Livrets ou brochures | | | | |
| j. Fiches d'information | | | | |
| k. Affiches | | | | |
| I. Documents infographiques | | | | |
| Ressources numériques | | | | |
| m. Brèves vidéos | | | | |
| n. Vidéos / films/ | | | | |
| documentaires | | | | |
| o. Ressources en ligne/portails | | | | |
| Web/ressources numériques | | | | |
| p. Applications mobiles (p. ex., CANImmunize) | | | | |

| | brochures ou des fiches d'information? |
|-----|---|
| | 01 Souvent 02 Parfois 03 Rarement 04 Jamais 99 Incertain(e) |
| 34. | Quelles plateformes de médias sociaux, s'il y a lieu, utilisez-vous pour apprendre ou partager de l'information sur la vaccination et d'autres sujets du domaine de la santé? VEUILLEZ SÉLECTIONNER TOUTES LES RÉPONSES QUI S'APPLIQUENT. |
| | 01 Twitter 02 Facebook 03 LinkedIn 04 Instagram 88 Autre (veuillez préciser): Je n'utilise aucune plateforme de médias sociaux dans ce but |
| 35. | Veuillez compléter la phrase suivante : |
| | « J'utilise la section "Immunisation et vaccins" du site Web de l'Agence de la santé publique du Canada pour » OPEN TEXT BOX - NON MANDATORY |
| 36. | <question abandonnée=""></question> |

33. [IF USE ANY PRINTED RESOURCES WITH PATIENTS, CODES 2 OR 3 AT 32a-d] À quelle fréquence renvoyez-vous vos patients à la maison avec des documents **imprimés** portant sur la vaccination, par exemple des

Section 7: Final thoughts

- 37. Globalement, dans quelle mesure, selon vous, les réticences ou les préoccupations des patients quant à la vaccination constituent-elles un problème de santé publique à l'heure actuelle?
 - 01 Elles constituent un problème important
 - 02 Elles constituent un certain problème
 - 03 Elles ne constituent pas un problème important
 - 04 Elles ne constituent pas du tout un problème
 - 99 Incertain(e)
- 38. En vous appuyant sur votre propre expérience, y a-t-il des suggestions que vous souhaiteriez émettre sur la façon dont l'Agence de la santé publique du Canada peut aider les professionnels de la santé à répondre aux réticences des patients quant à la vaccination? OPEN TEXT BOX NON MANDATORY
- 39. Y a-t-il d'autres commentaires que vous souhaiteriez ajouter sur les sujets dont il a été question dans ce sondage?

OPEN TEXT BOX (DO NOT CODE – PROVIDE VERBATIMS ONLY) - NON MANDATORY

Section 8: Respondent Characteristics

Les questions suivantes permettront de regrouper les résultats du sondage. Vos réponses seront anonymes et traitées de manière strictement confidentielle.

- D3. Lequel des énoncés suivants décrit le mieux votre environnement de travail *principal*? VEUILLEZ SÉLECTIONNER UNE SEULE RÉPONSE.
 - 01 Hôpital pédiatrique
 - 02 Autre type d'établissement hospitalier
 - 03 Clinique de médecine familiale
 - 04 Clinique ou établissement de santé publique
 - 06 Établissement de soins de longue durée
 - 07 Organisme de soins à domicile
 - 08 Pharmacie
 - 09 Établissement scolaire
 - 88 Autre (NE PAS PRÉCISER)
- D4. Laquelle des catégories suivantes correspond à la région où se situe votre lieu de travail principal?
 - 01 Grande agglomération urbaine (plus de 100 000 habitants)
 - 02 Agglomération moyenne (de 30 000 à 100 000 habitants)
 - 03 Petite agglomération (de 1000 à 29 999 habitants)
 - 04 Région rurale
 - 05 Communauté des Premières nations (réserve)

D5. Quels sont les trois premiers caractères du code postal de votre lieu de travail principal?

999 – Je préfère ne pas répondre

D6. Accepteriez-vous que l'Agence de la santé publique du Canada communique avec vous occasionnellement afin de recueillir votre opinion sur le développement de nouveaux produits de sensibilisation ou d'éducation relatifs à la vaccination ou la mise à jour de tels produits?

01 Oui

02 Non

Merci d'avoir pris le temps de participer à cette étude. Veuillez cliquer sur le bouton « Soumettre » pour enregistrer vos réponses. Vous recevrez votre compensation financière une fois l'étude terminée (en janvier 2018).

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