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# ***Health professionals' attitudes, practices and needs regarding travel- related health advice and risks***

## **Final Report**

### **Prepared for the Public Health Agency of Canada**

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**Canada**

## **Health professionals' attitudes, practices and needs regarding travel-related health advice and risks**

Prepared for the Public Health Agency of Canada by Environics Research

September 2022

This public opinion research report presents the results of quantitative research conducted by Environics Research on behalf of the Public Health Agency of Canada, comprising an online survey with 1,016 health care professionals (HCP) in Canada conducted from June 26-August 15, 2022.

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Note: detailed banner tables are provided in a separate document



## Executive summary

### A. Background and objectives

Health risks associated with travel are a public health concern, as travellers are at risk of contracting serious infectious diseases during their trips, which may increase the burden of health care upon their return and, if contagious, may also place other Canadians at risk. The Public Health Agency of Canada (PHAC) has been working with key stakeholders to increase awareness of the health risks associated with travel and to improve and integrate its travel health programs to better prevent, respond to, and minimize the impact of travel-related public health risks. A challenge is to better understand the attitudes, practices, and needs of health professionals in Canada as they relate to travel-based health advice and risks, given they are a key resource in reaching the travelling public with messages that influence them to take actions to protect their health.

This public opinion research targeted health professionals to better understand their level of comfort in providing travel health related information on risks and recommendations. It also identified current practices related to the use of evidence-based advice and guidance developed by PHAC and its advisory bodies regarding travel-related health risks. The research findings identified barriers for health professionals regarding providing and using travel health advice and guidance, as well as to identify what tools and supports would be of benefit to health professionals.

The primary objective of this research was to gather information on the perspectives and experiences of health professionals with respect to travel-related products and advice.

Specific research objectives include, but are not limited to, the following:

- Understanding health professionals' willingness to provide information related to travel health-related risk and recommendations;
- Understanding current practices related to providing travel health-related advice;
- Identifying any barriers to providing travel health advice and guidance;
- Identifying the travel health subjects most important to health professionals;
- Identifying the information sources, tools or other resources currently being used to access travel health information;
- Confirming health professionals' level of awareness of PHAC products (e.g., Committee to Advise on Tropical Medicine and Travel (CATMAT) statements, Advisories, etc.);
- Identifying what tools and supports would be of benefit to health professionals; and
- Determining if attitudes, values, preferences and/or awareness differ among various demographic groups.

## B. Methodology

EnviroNics conducted a national online survey with 1,016 health care professionals (HCPs) from June 26-August 15, 2022. As this online survey utilized an opt-in list of health care professionals, it is a non-probability survey. Thus it cannot be assumed to be fully representative of the target population and no margin of sampling error is calculated. The following completions were achieved:

Completed interviews	Total	BC	Prairies	Ontario	Quebec	Atlantic	Physicians	Nurses/ Nurse Practitioners	Pharmacists
Number of interviews	1,016	142	212	366	215	81	356	355	305
% of interviews	100%	14%	21%	36%	21%	8%	35%	35%	30%

## C. Contract value

The contract value was \$139,813.54 (including HST).

### Report

This report begins with an executive summary outlining key findings and conclusions, followed by a detailed analysis of the survey data. Provided under a separate cover is a detailed set of “banner tables” presenting the results for all questions by population segments as defined by region and demographics. These tables are referenced by the survey question in the detailed analysis.

In this report, quantitative 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 tables due to rounding.

**Use of findings of the research.** The research findings will be used to assist PHAC to better understand gaps regarding its travel-related outreach to health professionals, and inform which tools and means of communication could result in broader distribution and uptake.

## D. Key findings

This research shows a good level of interest in the topic of travel health, with half of health care practitioners in the surveyed professions indicating their practice has at least some focus on this. They will provide travel health services directly, but will also refer patients to specialists as needed. At least half are very or somewhat confident in providing travel health advice or treatment. The two main barriers to providing travel health advice are not having time to look up specific risks for each patient and how fast recommendations on regional travel health issues can change. Strong majorities are interested in both additional professional education and in

receiving breaking information related to international travel health. Nurses are less engaged in travel health practice than are physicians and pharmacists. Specific findings follow:

### ***Current travel health practices***

- Half of health care professionals (HCPs) (51%) have at least some travel health focus in their practice. One percent have an exclusive travel health focus, and four percent indicate this is their primary focus.
- When approached by patients for travel health information prior to travel, over half of HCPs would take the appointment and provide advice or recommendations (57%) or refer them to a private or specialized travel clinic (54%).
- Almost six in ten HCPs (58%) provide travel health advice to patients; 15 percent provide it often and 43 percent provide it sometimes. One-third rarely (30%) or never (6%) do this.
- Four in ten (40%) HCPs introduce the topic of travel health advice to patients during unrelated or routine visit (7 percent provide it often and 33 percent provide it sometimes); over half (53%) say they rarely or never do this.
- The most common travel health-related advice or service HCPs provide to patients is general travel advice/education (71%), vaccination recommendations and prescriptions (64%) and advice or treatment for travellers' diarrhea (61%). Over half (56%) provide individualized risk assessments based on a patient's overall health, health history, and travel itinerary. Fewer than half provide other travel health services.
- Three-quarters of HCPs are at least somewhat confident in providing advice or treatment for travellers' diarrhea (76%) or general travel advice and education (76%), and two-thirds are confident about providing individualized risk assessment based on patient overall health, health history, and travel itinerary (67%). HCPs are least confident about prescribing medications to prevent travel-related illness (53%) or post-travel illness follow-up (52%).
- The most common prescriptions for travellers' diarrhea are antimotility agents such as loperamide (Imodium) or diphenoxylate with atropine (Lomotil) (67%) and Azithromycin (63%). Just over half prescribe Fluoroquinolones (53%). Four in ten (40%) prescribe Bismuth subsalicylate.
- Eight in ten (81%) HCPs who prescribe antibiotics for travellers' diarrhea will prescribe these for healthy adults, two-thirds (64%) do this for immunocompromised or chronically ill patients, and just under six in ten (57%) will prescribe this for seniors. Far fewer (27%) prescribe antibiotics for young children.
- Regarding what travel health advice topics are most requested by patients, seven in ten (71%) HCPs indicate they request itinerary-specific vaccination recommendations/requirements, and six in ten (59%) are asked about information or medication to prevent travellers' diarrhea, hepatitis A and B. Just over half are asked about prescriptions for medical prophylaxis (53%) and what diseases or illnesses patients could contract from food, water, animals or insects (53%).
- The topic selected most by HCPs as being of primary importance to discuss with patients is travel vaccinations (71%). The next most important topic is information on what diseases or illnesses they could contract from food, water, animals or insects while travelling and how to protect themselves (68%). Over half (55%) say it is important to discuss communicable disease outbreaks and pandemics specific to the patient's travel itinerary.

- Half of HCPs verify the patient's vaccination history matches the recommendations for international travellers set out in the Canadian Immunization Guide or similar advisory (50%) or offer routine immunization booster doses (49%). Just under half will check for country-specific outbreak information, including for COVID-19 (47%), and one-third (35%) will accelerate the routine or travel-related vaccine schedules based on the patient's destination. Two in ten (21%) say they do not provide advice on immunization.
- Around half of HCPs have provided advice for patients traveling to the Caribbean (52%), Central America/Mexico (50%) and Asia (49%) in the past five years. Around four in ten have advised regarding Africa (44%) and the United States (39%). Fewer (7% to 31%) have provided services or guidance regarding other locations. Around one in ten (12%) have not provided health related services for travellers outside of Canada in the past five years.

### ***Risk perception***

- In terms of travel health risks, Africa is ranked by HCPs as the most problematic destination for Canadian voyagers (87% saying it poses a moderate to high risk), closely followed by Asia (85%). Around eight in ten say Central America and Mexico (79%) or South America (78%) pose at least moderate risk to travellers, and seven in ten say this about the Caribbean (71%) or the Middle East (70%). Just under six in ten also rate other Pacific Islands as having at least moderate risk (58%). Fewer than half (25% to 46%) think other destinations pose a moderate to high risk.
- A two-thirds majority of HCPs (65%) feel risks to Canadians due to international health issues have increased in the past 10 years.

### ***Barriers***

- The issues most likely to pose a moderate to major barrier to providing travel health recommendations are not having time to look up specific risks for each patient (61%) and how fast recommendations on regional travel health issues can change (59%). Six in ten (60%) HCPs with no travel health focus in their practice also say this topic being outside of their area of expertise is a barrier to providing travel health recommendations.
- Out of six statements about travel health, HCPs are most likely to agree (strongly or somewhat) that travelling internationally poses health risks that are not present in Canada (79%) or that the government should invest more in informing HCPs about emerging travel health issues (74%). Seven in ten also agree the Canadian government should invest more in informing the public about travel health risks (70%) or that all international travellers should see a health care professional before they travel (68%).

### ***Information needs***

- Three-quarters (76%) of HCPs indicate they would be very or somewhat interested in additional professional education on international travel health; two in ten are not very (13%) or at all (6%) interested. By far, the preferred method for receiving this professional education is via online courses (81%), followed by advisory publications (39%) or conferences (35%).
- Over eight in ten (83%) HCPs would be very or somewhat interested in receiving breaking information related to international travel health; one in ten would not be. The most preferred way to receive this is

e-mail bulletins (83%), distantly followed by medical journal articles (32%). Only 15 percent would prefer to get emerging international travel health information via social media.

- The most trusted sources for travel health information are medical organizations like the Canadian Medical Association (93%), Government of Canada websites (93%) and international agencies like the World Health Organisation (WHO) or public health agencies of other countries (e.g., CDC) (92%). Professional colleagues are the least trusted source (75%).
- Of five travel health topics, HCPs would most like to learn more about recommended or required vaccinations/medications (76%), communicable disease outbreaks (72%) and vector-borne illnesses (65%).

### ***Use and rating of travel health resources***

- To update their travel health knowledge almost seven in ten (68%) would turn to the Canada.ca website, by far the most used resource. Four in ten (41%) look to medical journals, and just under this (37%) would turn to CATMAT statements; one-third (34%) use peer-reviewed medical websites.
- Nine in ten (91%) are aware of, and eight in ten (79%) use, travel advice and advisories on travel.gc.ca. Just under nine in ten (88%) are aware of, and just under three-quarters (73%) use, the Canadian Immunization Guide (CIG). Travel health notices are also high in awareness and use (83% aware, 69% use). The resources with lower awareness and use are Committee to Advise on Tropical Medicine and Travel (CATMAT) statements (55% aware, 37% use), the Canada Communicable Disease Report (CCDR) journal (53% aware, 31% use) and the Travel Smart app (32% aware, 16% use).
- Three in ten or more users of each resource use it at least monthly with the most frequently used being the Canadian Immunization Guide (48%) or the Travel Smart app (49%); these two apps are the most likely to be used at least weekly. Very few use travel health resources daily (from none up to four percent).
- User satisfaction is highest for the CIG (62%) and CATMAT statements (62%), and just under six in ten are satisfied with travel.gc.ca information (58%) and the Travel Smart app (57%). Half (49%) are satisfied with the CCDR, and under half (44%) are satisfied with travel health notices.
- In general, the main aspects liked across the range of travel health resources are being comprehensive, being easy to understand, and being up to date. The main improvements desired are increasing user friendliness and providing more frequent updates.
- Half or more CATMAT users most often use information on malaria (61%), COVID-19 (56%) and traveller's diarrhea (53%). Four in ten (39%) use information on Hepatitis during travel, and one-third (33%) use information on cruise ship travel.
- Close to six in ten (58%) use World Health Organization publications or its website; just under four in ten (37%) use the CDC Yellow Book, and about one in ten (8%) use the Travax online tool. Two in ten (22%) do not use other travel health resources.



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## E. Political neutrality statement and contact information

I hereby certify as senior officer of Environics that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Communications Policy of the Government of Canada, and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leaders.

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## Introduction

Canadians love to travel. The COVID-19 pandemic severely impacted the number of out of country travel, but with the dropping of restrictions and availability of vaccinations, out of country travel is resuming. Love of travel presents a public health concern, as travellers are at risk of contracting serious infectious diseases such as the Zika virus during their trips. Some of these diseases can then be spread to other travellers or to other Canadians when they return home.

The Public Health Agency of Canada (PHAC) works with key stakeholders to increase awareness of travel-related health risks: awareness is required to prevent, respond to, and minimize the impact of these risks. Related research, such as the National Adult Immunization Coverage Surveys, indicate Canadians most often turn to health care professionals for advice on disease prevention. As such health care professionals are a key resource in reaching the travelling public with messaging. It is therefore important to understand the role of health care practitioners in providing travel-related health guidance to Canadians, to help them accurately perceive potential health risks and take appropriate preventative measures before and during their trips.

PHAC wished to conduct public opinion research, to better understand the attitudes, practices, and needs of health professionals in Canada as they relate to travel-based health advice and risks, which will in turn improve and integrate PHAC's travel health programs.

*NOTE: This survey was originally contracted in 2019, to be conducted in 2020. As a result of the COVID-19 pandemic, the survey was delayed until such time as it was felt health care professionals would be in a position to respond to surveys on non-urgent topics (the field period was June 26-August 15, 2022).*

### Objectives

The primary objective of this research was to gather information on the perspectives and experiences of health professionals with respect to travel-related products and advice. The research targeted specific health professionals (physicians/general practitioners, nurses/nurse practitioners and pharmacists) and covered topics such as level of comfort in providing travel health related information on risks and recommendations; current practices related to the use of evidence-based advice; highlighting any potential barriers; and identifying needed tools and supports. The research findings will help PHAC better understand gaps regarding its travel-related outreach to health professionals and inform which tools and means of communication could result in broader distribution and uptake.

- Understanding health professionals' willingness to provide information related to travel health-related risk and recommendations;
- Understanding current practices related to providing travel health-related advice;
- Identifying any barriers to providing travel health advice and guidance;
- Identifying the travel health subjects most important to health professionals;
- Identifying the information sources, tools or other resources currently being used to access travel health information;

- Confirming health professionals' level of awareness of PHAC products (e.g., Committee to Advise on Tropical Medicine and Travel (CATMAT) statements, Advisories, etc.);
- Identifying what tools and supports would be of benefit to health professionals; and
- Determining if attitudes, values, preferences and/or awareness differ among various demographic groups (e.g., by province, area, whether rural or urban, language of service).

### ***About this report***

This report begins with an executive summary outlining the key findings of the research, followed by a detailed analysis and breakdown of the results. A detailed description of the quantitative methodology used to conduct this research is presented in Appendix A, and the survey questionnaire is provided in Appendix B.

Quantitative results are based on the entire sample unless otherwise noted. ***Results may not add to 100% due to rounding or multiple responses.***

Provided under a separate cover is a detailed set of “banner tables” presenting the results for all survey questions by subgroup segments. These tables are referenced by the survey question in the detailed analysis. Differences between subgroups are noted based on Z-test results at 95% probability for comparing proportions, and based on two-tailed T-test results at 95% probability for comparing means. Comparisons are based on differences between sub-groups, and not on differences compared to the total.

## Detailed findings

### A. Current practices

#### 1. Professional practice level of focus on travel health

*Half of health care professionals have at least some travel health focus in their practice.*

Half of health care professionals (HCPs) (51%) have at least some travel health focus in their practice. This is highest among pharmacists (69%) and lowest among nurses (36%). One percent of each of the three professions indicates an exclusive travel health focus, and around four percent indicate this is their primary focus.

#### Practice focus on travel health

Amount of travel health focus	Total (n=1,016)	Physicians (n=356)	Nurses/ Nurse Practitioners (NP) (n=355)	Pharmacists (n=305)
<i>Net: Any travel health focus</i>	51%	52%	36%	69%
Exclusively focused on travel health	1%	1%	1%	1%
Primarily focused on travel health	4%	5%	3%	4%
Somewhat focused on travel health	46%	45%	32%	64%
None of the above	49%	48%	64%	31%

Q3. Which of the following best describes your professional practice related to international travel medicine?

BASE: Total (n=1,016)

Travel focus is higher among male (63%) than female (45%), practitioners, which is linked to profession as nurses/nurse practitioners are more likely to be women (89%, vs. 58% of pharmacists and 44% of physicians).

Reporting at least some travel health focus is lowest in the Prairies (37% Manitoba and Saskatchewan) and highest in Quebec (63%) and Alberta (59%). It is higher among those with larger practices (58% who see over 50 patients per week, vs. 45% who see fewer). Having any travel health focus is highest among those HCPs in larger communities (55% in communities of 100,000 or more) and decrease along with a decrease in community (down to 42% in small or rural communities, under 30,000 people).

**NOTE: As gender is strongly linked to profession, gender differences are only noted in this report if the difference is notable beyond what is seen across the professions. As well, age of practitioner largely serves as a proxy for experience in this survey.**

## 2. Approach to travel health requests from patients

*Slim majorities of health care professionals not exclusively focused on travel health will refer patients to a private clinic or take the appointment themselves.*

HCPs were asked what they do when patients approach them for travel health information prior to travel. Over half would take the appointment and provide advice or recommendations (57%), or refer them to a private or specialized travel clinic (54%). Few (7% or fewer) would do anything else. Other mentions include referring them to their family doctor (1%) or public health websites (1%). One percent say they are never asked about travel health.

### Approach to travel health requests from patients (MULTIPLE RESPONSES PERMITTED)

How patient travel health requests are handled	Total (n=1,006)	Physicians (n=351)	Nurses/NP (n=353)	Pharmacists (n=302)
Take the appointment and provide advice/recommendations	57%	73%	37%	63%
Refer them to a private clinic/specialized travel clinic	54%	45%	66%	49%
Combination of both	2%	2%	1%	4%
Depends on complexity/destination	1%	1%	1%	2%
Other	7%	2%	11%	5%
Never asked about travel health	1%	1%	1%	<1%
Not sure	1%	0%	1%	1%

Q4 What do you do when/if patients approach you/your office for travel health information prior to travel? (MULTIPLE RESPONSES PERMITTED)

BASE: Those with practices not exclusively focused on travel health (n=1,006)

Nurses are notably less likely than either physicians or pharmacists to directly provide advice or recommendations (37% vs. 63% or 73%); they are notably more likely to give their patients referrals to a specialized travel clinic (66% vs. 45% or 49%). Taking the appointment and directly providing travel health services is statistically similar across the country, but highest in Quebec (64%) and the Atlantic region (63%). Taking the appointment and providing the service is similar by practitioner age, but referrals to a private clinic are highest among those under age 40 (60%) and decreases as age increases, to a low of 44 percent of those age 60 and over.

As might be expected, providing direct travel health services is highest among those exclusively or primarily focused on travel health (96%) and decreases as travel health focus diminishes (73% somewhat focused and 39% with no such focus). Directly providing travel health services is higher among those with larger practices (68% who see over 50 patients per week, vs. 47% who see fewer).

### 3. Frequency of providing travel health advice to patients

*Close to six in ten healthcare practitioners provide travel health advice at least sometimes.*

Close to six in ten HCPs (58%) provide travel health advice to their patients at least sometimes; 15 percent provide it often. One-third rarely (30%) or never (6%) provide travel health advice, and under one in ten (7%) say it varies. Nurses are notably less likely (36%) than pharmacists (66%) or physicians (72%) to provide travel health advice at least sometimes.

#### How frequently travel health advice is provided to patients

How often travel health advice is provided	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
<i>Net: Often/sometimes</i>	58%	72%	36%	66%
Often	15%	22%	8%	13%
Sometimes	43%	49%	28%	53%
<i>Net: Rarely/never</i>	35%	23%	55%	26%
Rarely	30%	22%	43%	23%
Never	6%	1%	12%	3%
It varies	7%	5%	8%	8%

Q5 On average, how frequently do you provide travel health advice to your patients?

BASE: Total (n=1,016)

Provision of travel health advice at least sometimes is similar across the country; it is highest among those with at least some travel health focus (77%, including 94% of those with exclusive or primary focus) than those with no such focus (38%). Providing patients with travel health advice at least sometimes is higher among HCPs with larger practices (68% who see more than 50 patients per week vs. 47% who see fewer), those in larger communities (62%, vs. 53% in medium and 48% in small/rural places), and those age 50 and older (64%, vs. 53% under 50).

When community size is further broken by number of patients seen per week (50 or fewer and 51 or more), it is the case that HCP with practices that see 51 or more patients per week located in *large urban centres* are more likely to provide travel advice *often* (25%) than are HCP with comparably-sized practices located in *small or rural locations* (7%), but other differences in frequency of travel health service provision are not marked.

#### 4. Frequency of introducing the topic of travel health

*Four in ten healthcare practitioners introduce the topic of travel health advice at least sometimes to patients during unrelated or routine visits.*

HCPs were asked how they introduce the topic of travel health to their patients on unrelated or routine visits. Travel health is brought up under these circumstances at least sometimes by four in ten (40%); over half (53%) say they rarely or never do this. Physicians (50%) are the most likely to do this at least sometimes, compared to pharmacists (39%) or nurses (30%).

##### How frequently HCPs introduce the topic of travel health advice to patients

How often travel health is brought up with patients	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
<i>Net: Often/sometimes</i>	40%	50%	30%	39%
Often	7%	12%	4%	5%
Sometimes	33%	38%	25%	35%
<i>Net: Rarely/never</i>	53%	44%	63%	52%
Rarely	37%	31%	41%	38%
Never	16%	13%	22%	14%
It varies	7%	6%	7%	9%

Q6 How frequently, if ever, do you introduce the topic of travel health during unrelated or routine visits with your patients?

BASE: Total (n=1,016)

The proportions of HCPs saying they introduce the topic of travel health information at least sometimes during a routine visit is consistent across the country; it is more likely to be the case among those whose practice has an exclusive or primary travel health focus (86%) than those with somewhat (49%) or no travel health focus (26%), and is more likely to occur among those with larger practices (48% who see over 50 patients per week, vs. 31% who see fewer). Introducing travel health during routine visits increases as practitioner age increases, from 30% under age 40 up to 48% age 60 and over.

## 5. Travel health advice or services provided to patients

*Majorities of health care professionals give general travel advice, vaccination recommendations and prescriptions, travellers' diarrhea advice or treatment, and individualized risk assessments.*

The most common of the presented travel health-related advice or services HCPs can provide to patients are general travel advice/education (71%), vaccination recommendations and prescriptions (64%), and advice or treatment specifically related to travellers' diarrhea (61%). Over half (56%) also provide individualized risk assessments based on patient overall health, health history, and travel itinerary. Fewer than half give their patients other travel-related services, including prescribing medication to prevent travel-related illnesses (44%), administering travel vaccinations (42%), or post-travel follow-up (32%).

### Travel health risk advice or services provided to patients (MULTIPLE RESPONSES PERMITTED)

Travel health advice or services provided	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
General travel advice/education	71%	79%	54%	81%
Travel vaccination recommendations and prescriptions	64%	73%	45%	74%
Advice or treatment specifically related to travellers' diarrhea	61%	70%	33%	83%
Individualized risk assessment	56%	70%	45%	52%
Prescribing medication to prevent travel-related illness	44%	73%	17%	40%
Administering travel vaccinations	42%	45%	27%	56%
Post-travel follow-up or post-travel illness diagnosis	32%	51%	21%	24%
None of the above	10%	5%	21%	3%

Q7 Which of the following travel health risk advice or services do you provide to patients? (MULTIPLE RESPONSES PERMITTED)

BASE: Total (n=1,016)

Nurses are the least likely of the three professions in the survey to provide their patients with any of these services; two in ten (21%) provide none of these. Pharmacists are more likely than physicians to provide advice or treatment specifically related to travellers' diarrhea (83% vs. 70%) or to personally administer travel vaccinations (56% vs. 45%); physicians are more likely than pharmacists to provide individualized risk assessments (70% vs. 52%) or post-travel follow-up or illness diagnoses (51% vs. 24%).

Providing these services is generally similar across the country, but Quebec HCPs are the most likely to provide travellers' diarrhea advice or treatment (69%) or preventative medications (61%), and the least likely to administer travel vaccinations (27%).

Providing each of these services is higher among those with practices reporting higher levels of focus on travel health, and those who see over 50 patients per week.



## 6. Confidence in providing travel health information/services

Majorities of health care professionals are at least somewhat confident providing specific travel health information or services; confidence is highest for providing advice or treatment of diarrhea and general travel health advice or education.

Half or more of health care professionals say they are at least somewhat confident in providing each of the presented travel health-related information or services to their patients. Three-quarters are at least somewhat confident in providing advice or treatment for travellers' diarrhea (76%) or general travel advice and education (76%), and two-thirds are confident about providing individualized risk assessment based on patient overall health, health history, and travel itinerary (67%). The activities with the lowest levels of confidence are prescribing medication to prevent travel-related illness (53%) and post-travel illness follow-up (52%).

### Confidence in providing specific travel health information or services to patients

Confidence in providing travel health advice or services	Net confident (n=1,016)	Very confident	Somewhat confident	Not very confident	Not at all confident	Do not provide
Advice/treatment for travellers' diarrhea	76%	32%	44%	9%	3%	11%
General travel advice and education	76%	27%	49%	11%	4%	9%
Individualized risk assessment	67%	16%	51%	17%	6%	11%
Travel vaccination recommendations and prescriptions	63%	20%	43%	16%	7%	14%
Administering travel vaccinations	61%	38%	23%	10%	4%	25%
Prescribing medication to prevent travel-related illness	53%	19%	34%	15%	5%	27%
Post-travel follow-up in case of illness	52%	13%	39%	22%	7%	20%

Q8-14 How confident do you feel about providing the following information or services related to travel health to your patients?

BASE: Total (n=1,016)

Pharmacists (93%) are more likely than physicians (86%) to be confident in their ability to provide advice or treatment specifically related to travellers' diarrhea, while physicians are more likely than pharmacists to be confident in their ability to prescribe medication to prevent travel-related illness (physicians 65%, pharmacists 58%), or post-travel follow-up in case of illness (physicians 66%, pharmacists 49%). Nurses are less likely than physicians and pharmacists to be at least somewhat confident in providing all types of travel health services.

#### Net confident in providing specific travel health information or services to patients – by profession

Net confident in providing travel health advice or services	Net confident (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Advice/treatment for travellers' diarrhea	76%	86%	50%	93%
General travel advice and education	76%	83%	58%	88%
Individualized risk assessment	67%	77%	53%	71%
Travel vaccination recommendations and prescriptions	63%	72%	45%	75%
Administering travel vaccinations	61%	65%	51%	69%
Prescribing medication to prevent travel-related illness	53%	78%	23%	58%
Post-travel follow-up in case of illness	52%	66%	40%	49%

Q8-14 How confident do you feel about providing the following information or services related to travel health to your patients?

BASE: Total (n=1,016)

Generally speaking, confidence in performing most of these services is quite similar across regions, but confidence in providing individualized risk assessment is highest in British Columbia (76%) and confidence in prescribing preventative medication for travel-related illnesses is highest in Quebec (61%). Quebec HCPs are the least likely to express confidence about administering travel vaccinations (45%).

Again, confidence in providing each of these services is higher among those with practices having higher levels of focus on travel health, and those who see over 50 patients per week. Age is not a notable factor in overall confidence, but those who are 60 and over are the most likely to express strong confidence in their ability to prescribe preventative medication (28%, vs. 16%-19%), do individualized risk assessments (24% vs. 13%-16%), and conduct post travel follow-up (19% vs. 12%-13%).

## 7. Prescriptions typically provided for travellers' diarrhea

*The most commonly provided travellers' diarrhea treatments are antimotility agents, Azithromycin and Fluoroquinolones*

HCPs who indicated they provide advice or treatment related to travellers' diarrhea were asked what prescriptions they typically give their patients for this, from a list of six options; they were also offered an opportunity to write in additional medications or treatments. The most common prescriptions are for antimotility agents like Imodium or Lomotil (67%), followed by Azithromycin (63%). Just over half prescribe Fluoroquinolones (53%). Four in ten prescribe Bismuth subsalicylate (40%). Fewer than one in ten (2% to 4%) prescribe any other travellers' diarrhea medications.

### Travellers' diarrhea prescriptions typically provided to patients (MULTIPLE RESPONSES PERMITTED)

Prescriptions provided	Those providing travellers' diarrhea advice or treatment (n=524)	Physicians (n=245)	Nurses/NP (n=72)	Pharmacists (n=207)
Antimotility agents	67%	61%	60%	76%
Azithromycin	63%	65%	52%	65%
Fluoroquinolones	53%	64%	42%	44%
Bismuth subsalicylate	40%	39%	39%	41%
Other antibiotics	8%	9%	12%	5%
Dukoral	4%	2%	6%	5%
Electrolytes/rehydration	3%	2%	0%	6%
Gastrolyte	2%	0%	0%	3%
Probiotics	1%	0%	3%	2%
Other medication/treatments	4%	4%	3%	3%

Q15 Which prescriptions do you typically give your patients for travellers' diarrhea? (MULTIPLE RESPONSES PERMITTED)

BASE: Those providing advice or treatment specifically related to travellers' diarrhea (n=524)

Travellers' diarrhea prescriptions are quite similar across subgroups, with a few exceptions:

- Prescribing antimotility agents is higher among pharmacists (76%)
- Prescribing Fluoroquinolones is highest among physicians (64%)
- Nurses are less likely than others to prescribe Azithromycin (52%)
- Prescribing Azithromycin is highest in Alberta (74%) and Quebec (76%), and lower in small/rural communities (47%) than large (67%) or medium (64%) locations.

Prescriptions do not notably differ by the level of travel health focus in the practice.

## 8. Types of patients recommended antibiotics for travellers' diarrhea

*Eight in ten who prescribe antibiotics for travellers' diarrhea recommend these for self-treatment of healthy adults, and two-thirds do this for those with chronic conditions or who are immunocompromised.*

Those who indicated they prescribe antibiotics for patients with travellers' diarrhea were asked for which types of patients they do this. Eight in ten will prescribe antibiotics for healthy adults (81%), two-thirds will do this for immunocompromised or chronically ill patients (64%), and just under six in ten will prescribe this for seniors (57%). Far fewer, just over one-quarter, prescribe antibiotics for young children with travellers' diarrhea (27%).

There are just a couple of notable differences by profession: pharmacists are the most likely to prescribe antibiotics to healthy adults (90%), or young children (39%); nurses are the least likely to prescribe these for seniors (41%).

### Types of patients recommended antibiotics for travellers' diarrhea (MULTIPLE RESPONSES PERMITTED)

Types of patients	Those prescribing antibiotics for travellers' diarrhea (n=458)	Physicians (n=230)	Nurses/NP (n=59)	Pharmacists (n=169)
Healthy adults	81%	76%	71%	90%
Adults with chronic conditions/ immunocompromised	64%	68%	60%	59%
Seniors	57%	60%	41%	59%
Young children	27%	22%	16%	39%
Depends on symptoms	2%	2%	2%	1%
Other mentions	3%	3%	5%	2%
None	1%	1%	-	-
Not sure	1%	1%	-	1%

Q16 For which patients do you recommend antibiotics for self-treatment of travellers' diarrhea? (MULTIPLE RESPONSES PERMITTED)

BASE: Those prescribing antibiotics for travellers' diarrhea (n=458)

Prescribing antibiotics for healthy adults is the top response across the country and all subgroups. Prescribing these for young children is higher in Alberta (36%) and Quebec (48%) than elsewhere (8% to 18%). Those with no travel health focus are less likely than those with at least some focus to prescribe antibiotics for any group other than healthy adults. Age is not a major factor, but prescribing antibiotics to young children is lower among HCP age 60 and over (14%) than younger practitioners (27% to 38%).

## 9. Most requested travel health advice topics

*The travel health-related information most requested by patients are itinerary-specific vaccinations, travellers' diarrhea and hepatitis A/B information or medication, prescriptions for medical prophylaxis, and information on what patients might contract from food/water/animals/insects while travelling.*

HCPs were presented with a list of travel health advice topics and asked which are the most requested by patients. Seven in ten (71%) say they ask for vaccination recommendations/requirements specific to their travel itinerary, and six in ten (59%) say patients often ask about information or medication to prevent travellers' diarrhea, hepatitis A and B. Just over half indicate they are asked about prescriptions for medical prophylaxis (53%) and what diseases or illnesses patients could contract from food, water, animals or insects while travelling and how to protect themselves (e.g., insect bite prevention; hand washing) (53%). Half (50%) are asked for information on communicable disease outbreaks/pandemics specific to the patient's travel itinerary, including COVID-19, and four in ten (39%) say a routine immunization schedule review (including annual flu shot). Three in ten or fewer indicate each of other topics is the most often requested.

### Most often requested travel health advice topics (MULTIPLE RESPONSES PERMITTED)

Most requested topics	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Travel vaccinations specific to travel itinerary	71%	82%	55%	77%
Info/medication to prevent travellers' diarrhea, hepatitis A and B	59%	68%	35%	76%
Prescriptions for medical prophylaxis	53%	72%	26%	62%
Diseases/illnesses from food/water/animals/insects	53%	56%	42%	61%
Info on communicable diseases specific to travel itinerary	50%	57%	46%	48%
Routine immunization schedule review including flu shot	39%	43%	37%	36%
Post-travel illness advice	30%	39%	23%	28%
Safety/suitability of travel for children	24%	33%	18%	19%
Info on sexually transmitted infections abroad	13%	18%	12%	10%
Other precautions to protect the patient's health	2%	2%	3%	1%
Other mentions (1% or fewer each)	5%	3%	7%	5%
None of the above	4%	2%	9%	2%
Not sure	4%	2%	8%	1%

Q17 Which of the following topics are most often requested from patients seeking travel health advice? (MULTIPLE RESPONSES PERMITTED)

BASE: Total (n=1,016)

Nurses are less likely than physicians or pharmacists to have often received requests about most of these topics. The exception is requests for routine immunization schedules, which nurses (36%) are as likely to have received

as pharmacists (37%). Pharmacists are more likely than physicians to be asked about information or medication to prevent travellers' diarrhea, hepatitis A and B (76%, vs. 68%).

Physicians are more likely than pharmacists to list the following as most often requested:

- Prescriptions for medical prophylaxis (72% vs. 62%)
- Info on communicable diseases specific to travel itinerary (57% vs. 48%)
- Post-travel illness advice (39% vs. 28%)
- Information on the safety or suitability of travel for children (33% vs. 19%)
- Information on sexually transmitted infections abroad (including drug resistant strains found abroad) (18% vs. 10%)

Responses are generally similar across the country, but Quebec HCPs are the most likely to be asked about prescriptions for medical prophylaxis (63%, vs. 44% to 58% elsewhere) and the least likely to be asked about a routine immunization schedule review (28%, vs. 41% to 46%).

Being asked about all topics is higher among health care professionals with at least some travel health focus than those without, and among those who see over 50 patients per week. Age is not a major factor, but older practitioners (age 60 and over) are the most likely to be asked for information about what diseases or illnesses can be contracted from food/water/animals/insects while travelling (63%).

**10. Most important topics to discuss with patients who will be travelling internationally**

*Health care practitioners deem travel vaccinations and contractible diseases/illnesses from food/water/animals/insects as the most important topics to discussion with patients prior to international travel.*

Later in the survey HCPs were asked to prioritize a similar list of travel health topics, based on what they feel are the most important things to be discussed with patients. The topic most selected by HCPs as being of primary importance to discuss with patients is travel vaccinations (71%), and the second most important is information of what diseases or illnesses they could contract from food, water, animals or insects while travelling and how to protect themselves (68%). Over half (55%) feel it is important to discuss communicable disease outbreaks and pandemics specific to the patient's travel itinerary. Three in ten or fewer indicate other topics are the most important to discuss..

**Most important travel health topics to discuss with patients  
(UP TO THREE PERMITTED)**

Most important topics	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Travel vaccinations specific to travel itinerary	71%	70%	68%	75%
Diseases/illnesses from food/water/animals/insects	68%	64%	67%	74%
Communicable diseases specific to travel itinerary	55%	52%	61%	53%
Prescriptions for medical prophylaxis	31%	39%	14%	41%
Info/medication to prevent travellers' diarrhea, hepatitis A and B	21%	20%	18%	27%
Routine immunization schedule review	14%	16%	16%	10%
Post-travel illness advice	6%	6%	10%	4%
Accident prevention while travelling	5%	6%	5%	3%
Info on sexually transmitted infections abroad	3%	5%	4%	1%
Other mentions (1% or fewer each)	2%	2%	2%	1%
Other precautions to protect the patient's health	3%	3%	3%	1%
None of the above	1%	<1%	3%	0%
Not sure	2%	1%	4%	2%

Q32 In your view, what are the most important topics to discuss with patients who will be travelling internationally? (SELECT UP TO THREE)

BASE: Total (n=1,016)

Topics are ranked similarly across professions, with a few exceptions. Pharmacists are the more likely to indicate it is important to discuss what diseases could be contracted while travelling (74%, vs. 64% of physicians and 67% of nurses) or medication to prevent travellers' diarrhea, hepatitis A and B (27%, vs. 20% of physicians and 18% of nurses). Nurses are the most likely to think it is important to discuss communicable disease outbreaks specific to the travel itinerary (61%), and the least likely to feel it is important to discuss prescriptions for medical prophylaxis (14%).

Topics rank similarly across the country and across subgroups for the most part, but HCPs in Quebec are the most likely to think it is important to discuss either prescriptions for medical prophylaxis (44%, vs 26% to 30% elsewhere) or information/medication to prevent travellers’ diarrhea or hepatitis A and B (30%, vs. 18% to 22% elsewhere).

There are no clear patterns by the amount of practice focus on travel health, except that those with at least some focus are more likely than those with no focus to say it is important to discuss vaccinations specific to travel itinerary (76% vs. 66%). There are few differences by age, but mentioning travel vaccination recommendations is higher among those under age 60 (72% to 76%) than older HCP (60%).

When the topics most selected by HCPs as being of *primary importance* to discuss with patients are compared to those *most requested* by patients, there is a good amount of correlation. There are no topics HCPs think are important to discuss that patients are not raising. There are two topics - prescriptions for medical prophylaxis and information/medication to prevent travellers’ diarrhea, hepatitis A and B – that over half of HCPs indicate are requested by their patients but that HCPs do not rate as being especially important in relation to other topics.

**Most important travel health topics to discuss with patients compared to the most often requested**

Travel health topics	Most important topics Total (n=1,016)	Most requested topics Total (n=1,016)
<b>Higher requested, higher importance</b>		
Travel vaccinations specific to travel itinerary	71%	71%
Diseases/illnesses from food/water/animals/ insects	68%	53%
Communicable diseases specific to travel itinerary	55%	50%
<b>Higher requested, lower importance</b>		
Prescriptions for medical prophylaxis	31%	53%
Info/medication to prevent travellers’ diarrhea, hepatitis A and B	21%	59%
<b>Lower requested, lower importance</b>		
Routine immunization schedule review	14%	39%
Post-travel illness advice	6%	30%
Info on sexually transmitted infections abroad	3%	13%

Q17 Which of the following topics are most often requested from patients seeking travel health advice? (MULTIPLE RESPONSES PERMITTED)

Q32 In your view, what are the most important topics to discuss with patients who will be travelling internationally? (SELECT UP TO THREE)

BASE: Total (n=1,016)



**11. Travel-related immunization advice services provided**

*Around half of health care practitioners verify that the patient's vaccination history matches recommendations for international travel, offer routine booster doses, or check for country-specific outbreak information.*

HCPs were asked to indicate which actions presented they would typically take as part of their advice on immunization for patients presenting for travel advice. Half verify that the patient's vaccination history matches the recommendations for international travellers set out in the Canadian Immunization Guide or similar advisory (50%) or offer routine immunization booster doses (49%). Just under half will check for country-specific outbreak information, including for COVID-19 (47%), and one-third (35%) will accelerate the routine or travel-related vaccine schedules based on the patient's destination. Two in ten (21%) say they do not provide advice on immunization.

**Travel-related immunization advice services provided to patients  
(MULTIPLE RESPONSES PERMITTED)**

Travel immunization-related activities	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Verify vaccination history matches recommendations for international travellers	50%	60%	36%	54%
Offer routine immunization booster doses	49%	62%	36%	50%
Check for country-specific outbreak info, incl. COVID-19	47%	59%	31%	52%
Accelerate routine/travel-related vaccine schedules based on destination	35%	46%	19%	40%
I do not provide advice on immunization	21%	12%	38%	11%
Not sure	4%	2%	5%	5%

Q18 Do you, as part of your advice on immunization for patients presenting for travel advice, typically do any of the following? (MULTIPLE RESPONSES PERMITTED)

BASE: Total (n=1,016)

As with other travel health actions, nurses are less likely than pharmacists or physicians to do each of these, and more likely not to provide advice on immunization at all (38%, vs 11% and 12%). Doctors are the most likely to offer boosters (62%).

Activities are generally similar across the country. Quebec HCPs are less likely than others to offer routine boosters (34%, vs. 51% to 61% elsewhere), or to accelerate routine or travel-based vaccination schedules (26%, vs. 31% to 44% elsewhere). Doing all four actions is higher among those with a focus on travel health in their practice: Verifying patient's vaccination history matches recommendations (66% any travel health focus, vs. 33% with none); offering routine immunization booster doses (61% vs. 38%); checking for country-specific outbreak information (62% vs. 32%) and accelerating routine/travel-related vaccine schedules based on destination (46% vs. 22%). All four are also higher among those who see more than 50 patients a week: Verifying patient's vaccination history matches recommendations (58% 50+, vs. 42% 50 or fewer); offering routine immunization booster doses (59% vs. 40%); checking for country-specific outbreak information (59% vs. 35%) and accelerating routine/travel-related vaccine schedules based on destination (46% vs. 24%). Older practitioners (age 60 and over) are the most likely to check for country-specific outbreak information, including for COVID-19 (54%, vs. 43% to 49% of others).

**12. Countries/regions for which travel advice or treatment was provided in past five years**

*Health care practitioners are most likely to have provided travel-related services to patients travelling to the Caribbean, Central America/Mexico, and Asia.*

HCPs were shown a list of 11 countries or travel regions around the world and asked to indicate for which they have provided advice or treatment in the past five years. Around half have provided advice for patients traveling to the Caribbean (52%), Central America/Mexico (50%), and Asia (49%). Around four in ten have advised regarding Africa (44%) and the United States (39%). Fewer have provided services or guidance regarding other locations; one in ten (12%) have not provided travel health related services in the past five years.

**Countries/regions for which travel advice or treatment was provided, past five years  
(MULTIPLE RESPONSES PERMITTED)**

Countries/regions	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Caribbean	52%	63%	34%	60%
Central America and Mexico	50%	61%	31%	60%
Asia	49%	65%	25%	58%
Africa	44%	61%	23%	49%
United States	39%	40%	35%	42%
South America	36%	43%	21%	46%
Europe	31%	38%	24%	30%
Middle East	21%	31%	13%	19%
Australia or New Zealand	12%	17%	9%	10%
US Territories	7%	9%	5%	8%
Other Pacific islands	7%	13%	4%	4%
Elsewhere	<1%	0%	2%	0%
None	12%	3%	28%	5%
Not sure	5%	4%	9%	4%

Q19 For which countries or travel region(s) did you provide advice or treatment in the past five (5) years? (MULTIPLE RESPONSES PERMITTED)

BASE: Total (n=1,016)

Overall, nurses are generally less likely than pharmacists and physicians to advised travel health clients across destinations. However, they are just as likely to have provided advice to those visiting the United States. Both pharmacists and nurses had provided advice to those travelling to Europe (30%, 24%), Australia/New Zealand (10%, 9%) and the Pacific Islands (4%, 4%) at similar rates in the last five years, less than physicians (38%, 17%, 13% respectively)

As might be expected, providing services for all destinations is higher among those with at least some travel health focus than those who do not, and among those who see more than 50 patients per week. There is little difference by age, except mentioning the Caribbean is higher among HCP age 50 and over (58%) than younger practitioners (47%).

There are some notable regional differences in providing travel health services for specific destinations:

- Caribbean - higher among HCPs in Ontario (54%), Quebec (62%) and the Atlantic (64%) than British Columbia (35%), Alberta (40%) and Manitoba/Saskatchewan (45%).
- Asia – higher in British Columbia (65%, vs. 30% to 50% elsewhere); this is also higher among those in large communities (56%) and decreases as size of community decreases (to 30% in small or rural locations).
- South America – higher in Quebec (44%, vs. 28% to 38% elsewhere).

## B. Risk perception

### 1. Level of travel health/communicable disease risk for Canadians travelling to locations

*Health care professionals believe Africa and Asia pose the highest levels of travel health/communicable disease risk (including COVID-19) for Canadians travelling abroad.*

HCPs were asked to rank the level of perceived risk for Canadian travellers to the same list of countries and regions covered in travel advice question. Africa is ranked by HCPs as the most problematic destination for Canadian voyagers (87% saying it poses moderate to high risk), closely followed by Asia (85%). Around eight in ten say Central America and Mexico (79%) or South America (78%) pose at least a moderate risk to travellers, and seven in ten say this about the Caribbean (71%) or the Middle East (70%). Just under six in ten also rate other Pacific Islands as having at least moderate risk (58%). Fewer than half think other destinations pose moderate to high risk, with Australia and New Zealand considered the least risky. A range of one in ten to one-quarter are unable to rate level of risk for individual locations, with territories of the United States (Puerto Rico, Guam, Virgin Islands) and other Pacific islands ((Fiji, Tahiti, Papua New Guinea, etc.) being the locations with less ability to rate.

#### Level of travel health/communicable disease risk for Canadians by region

Country/region risk levels	Net Moderate/high risk	High risk	Moderate risk	Low risk	No risk	Not sure
Africa	<b>87%</b>	63%	24%	1%	0%	11%
Asia	<b>85%</b>	45%	40%	4%	0%	11%
Central America/Mexico	<b>79%</b>	26%	53%	10%	0%	10%
South America	<b>78%</b>	32%	46%	7%	0%	15%
Caribbean	<b>71%</b>	16%	55%	18%	0%	11%
Middle East	<b>70%</b>	23%	48%	13%	0%	17%
Other Pacific islands	<b>58%</b>	18%	40%	17%	0%	25%
US Territories	<b>46%</b>	9%	37%	30%	2%	22%
United States	<b>32%</b>	7%	24%	53%	6%	10%
Europe	<b>32%</b>	6%	27%	52%	4%	11%
Australia/ New Zealand	<b>25%</b>	3%	22%	58%	4%	13%

Q20-30 In your professional opinion, please indicate the level of travel health/communicable disease risk (including COVID-19) for Canadians travelling to each of the following locations: (Note: this excludes trauma/accidents and personal security issues)

BASE: Total (n=1,016)

Nurses are the least likely profession to indicate several of the regions pose at least a moderate risk to Canadians: Africa, Asia, Central America/Mexico, South America, Caribbean, Middle East and other Pacific Islands. Nurses are the most likely to not be able to rate level of risk for all locations.

Nurses are as likely as others to think this of the U.S. Territories, Europe, the U.S. and Australia/New Zealand.

#### Region poses moderate/high travel health/communicable disease risk for Canadians– by profession

Country/region is <i>moderate/high risk</i>	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Africa	87%	95%	77%	90%
Asia	85%	91%	75%	89%
Central America/Mexico	79%	87%	65%	87%
South America	78%	88%	65%	83%
Caribbean	71%	78%	56%	79%
Middle East	70%	76%	62%	74%
Other Pacific islands	58%	64%	49%	61%
US Territories	46%	45%	44%	50%
Europe	32%	32%	31%	34%
United States	32%	31%	33%	30%
Australia/ New Zealand	25%	23%	25%	28%

Q20-30 In your professional opinion, please indicate the level of travel health/communicable disease risk (including COVID-19) for Canadians travelling to each of the following locations: (Note: this excludes trauma/accidents and personal security issues)

BASE: Total (n=1,016)

The ranking of regions in terms of risk posed to Canadians is fairly similar across the country and other subgroups. That the United States poses a moderate to high risk is still a minority, but higher among those in the Atlantic (42%), Ontario (36%) and Alberta (36%). Those with larger practices and those in large or medium-sized communities were more likely to identify several of the top regions as posing a higher level of risk to Canadians. Rating Africa as a moderate to high risk is higher among HCP age 50 and over (91%) than younger practitioners (85%). The United States is thought to pose a risk more among those age 60 and over (40%, vs. 29% to 31%).

## 2. *If risks to Canadians due to international health issues have changed in past 10 years*

*Two-thirds of health professionals feel risks to Canadians due to international health issues have increased in the past 10 years.*

A two-thirds majority of HCPs (65%) feel risks to Canadians due to international health issues have increased in the past 10 years. Majorities think risk has increased, across professions, across the country, and all other subgroups.

### Change in risks to Canadians due to international health issues in past 10 years

International health risk in past 10 years has...	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Increased	65%	63%	68%	63%
Remained the same	21%	24%	15%	25%
Decreased	2%	2%	3%	2%
Not sure	12%	11%	14%	11%

Q31 From what you know or have heard, have risks to Canadians due to international health issues increased, decreased, or remained the same in the past 10 years? (Note: this excludes trauma/accidents and personal security issues)

BASE: Total (n=1,016)

Saying that the risk posed by international travel has remained the same is low across subgroups, but higher among, the following:

- Physicians (24%) and pharmacists (25%, vs. 15% of nurses).
- British Columbians (28%, vs. 17% to 22% of those residing in other locations).
- Exclusive/primary focus on travel health (37%, vs. 18% with no travel health focus).
- 51 or more patients per week (24%, vs. 19% who see fewer).

## C. Barriers

### 1. Barriers to providing travel health recommendations

*The biggest barriers to providing travel health recommendations to patients are not having time to look up risks, how fast recommendations can change, and inadequate reimbursement; for HCPs with no travel health focus in their practice, it is lack of expertise.*

HCPs were shown several potential barriers to providing travel health recommendations to patients (and those with no travel health focus were shown an additional barrier) and asked to rate how much of a barrier each poses in their case. The issues about which higher proportions of HCPs say pose at least a moderate barrier are not having time to look up specific travel health risks for each patient (61%, with 29% saying this is a major barrier) and how fast recommendations on regional travel health issues can change (59%; with 17% seeing it as a major barrier). Six in ten (60%) HCPs with no travel health focus in their practice also say this topic being outside of their area of expertise is a barrier to providing these recommendations. Just over half (54%) see lack of adequate reimbursement as at least a moderate barrier, and over four in ten (43%) say this about difficulties in accessing information during the patient encounter. Around four in ten see it as at least a moderate barrier that trusted sources are overly expensive (40%) or that there is a lack of trusted medical sources for travel health information (38%). The least problematic aspect is a belief that patients will not act on travel health advice, but this is still an issue for 29 percent.

#### Extent to which factors cause a barrier to providing travel health/recommendations to patients

Factor	Net Major/moderate/barrier	Major barrier	Moderate barrier	Minor barrier	Not a barrier	Not sure
Not having time to look up specific travel health risks for each patient	61%	29%	31%	23%	10%	7%
<i>NO TRAVEL HEALTH FOCUS (n=496)</i> Travel health is outside your area of expertise	60%	31%	29%	20%	10%	10%
How fast recommendations on regional travel health issues can change	59%	17%	41%	27%	6%	8%
Inadequate reimbursement	54%	23%	30%	18%	15%	14%
Available information is too difficult to access during the patient encounter	43%	13%	30%	31%	17%	9%
Trusted sources are overly expensive	40%	13%	27%	25%	18%	17%
A lack of trusted medical sources for travel health information	38%	11%	27%	28%	25%	9%
Not believing the patient will act on travel health advice	29%	6%	23%	36%	26%	10%

Q33-40 How much of a barrier is each of the following when it comes to providing travel health recommendations to your patients?

BASE: Total (n=1,016), No travel health focus (n=496)

## Factors cause a major/moderate barrier to providing travel health/recommendations to patients – by profession

<b>Poses major/moderate barrier</b>	<b>Total (n=1,016)</b>	<b>Physicians (n=356)</b>	<b>Nurses/NP (n=355)</b>	<b>Pharmacists (n=305)</b>
Not having time to look up specific travel health risks for each patient	61%	59%	54%	70%
<i>NO TRAVEL MEDICINE FOCUS (n=496)</i> Travel health is outside your area of expertise	60%	60%	61%	59%
Inadequate reimbursement	54%	60%	37%	66%
How fast recommendations on regional travel health issues can change	59%	60%	53%	64%
Trusted sources are overly expensive	40%	40%	39%	41%
Available information is too difficult to access during the patient encounter	43%	46%	38%	46%
A lack of trusted medical sources for travel health information	38%	35%	40%	40%
Not believing the patient will act on travel health advice	29%	25%	31%	32%

Q33-40 How much of a barrier is each of the following when it comes to providing travel health recommendations to your patients?

BASE: Total (n=1,016), No travel health focus (n=496)

Responses are generally quite similar across the country and most HCP subgroups, with a few stand-out differences.

*Not having time to look up specific risks*

- Pharmacists (70%, vs. 59% of physicians and 54% of nurses)
- Under age 60 (63%, vs. 52% 60 and over)

*Inadequate reimbursement*

- Manitoba/Saskatchewan (63%) and British Columbia (62%) (compared with 43% to 56% elsewhere)
- Under age 60 (57%, vs. 42% 60 and over)



There are a few differences in response to this question by how much of a travel focus a practice has. Those with exclusive or primary focus on travel health are less likely than those with less or no focus to indicate two things are barriers: not having time to look up specific travel health risks (35%, vs. 66% with some travel health focus and 58% with no focus) and that available information is too difficult to access during the patient encounter (27%, vs. 45% with some travel health focus and 43% with no focus). Those with at least some travel health focus are more likely than those with no such focus to say inadequate reimbursement is a barrier to providing travel health services (60%, vs. 47%).

**Factors cause a major/moderate barrier to providing travel health/recommendations to patients  
– by amount of travel health focus in the practice**

<b>Poses major/moderate barrier</b>	<b>Total (n=1,016)</b>	<b>NET: Any travel health focus (n=520)</b>	<b>Exclusive/primary TH focus (n=53)</b>	<b>Somewhat of a TH focus (n=467)</b>	<b>No TH focus (n=496)</b>
Not having time to look up specific travel health risks for each patient	61%	63%	35%	66%	58%
<i>NO TRAVEL MEDICINE FOCUS (n=496)</i> Travel health is outside your area of expertise	60%	n/a	n/a	n/a	60%
Inadequate reimbursement	54%	60%	64%	60%	47%
How fast recommendations on regional travel health issues can change	59%	62%	55%	63%	55%
Trusted sources are overly expensive	40%	42%	38%	42%	37%
Available information is too difficult to access during the patient encounter	43%	43%	27%	45%	43%
A lack of trusted medical sources for travel health information	38%	40%	32%	41%	36%
Not believing the patient will act on travel health advice	29%	36%	46%	35%	23%

Q33-40 How much of a barrier is each of the following when it comes to providing travel health recommendations to your patients?

BASE: Total (n=1,016), No travel health focus (n=496)

## 2. Agreement with travel health statements

HCPs are most likely to agree international travel poses risks not present in Canada and that the government should invest more in HCPs education about emerging travel issues; a strong three-quarters majority disagree that travel health issues are overblown.

Out of a list of six statements about travel health, HCPs are most likely to agree to some extent that travelling internationally poses health risks that are not present in Canada (79%) or that the government should invest more in informing HCPs about emerging travel health issues (74%). Seven in ten also agree the Canadian government should invest more in informing the public about travel health risks (70%) or that all international travellers should see a health care professional before they travel (68%). Just under half (48%) agree they have enough access to information resources to help address patient concerns about travel health issues; notably, only one in ten strongly agree with this. One in ten (9%) agree with the untrue statement that travel health risks are overblown and are really not that serious.

### Level of agreement with travel health statements

Statements	Net agree (strongly/somewhat)	Strongly agree	Some-what agree	Neither agree/disagree	Some-what disagree	Strongly disagree	Not sure
Travelling internationally poses health risks that are not present in Canada	<b>79%</b>	37%	41%	12%	6%	2%	2%
The gov't should invest more in informing HCPs about emerging travel health issues	<b>74%</b>	31%	43%	18%	5%	1%	3%
Canadian government should invest more in informing the public about travel health risks	<b>70%</b>	28%	42%	21%	5%	2%	2%
All int'l travellers should see a health care professional before they travel	<b>68%</b>	30%	39%	18%	9%	3%	3%
I have enough access to info. resources to... address travel health patient concerns	<b>48%</b>	9%	39%	21%	18%	8%	4%
Travel health risks are overblown, they are really not that serious	<b>9%</b>	3%	6%	12%	33%	43%	3%

Q41-46 To what extent do you agree or disagree with the following statements:

BASE: Total

## Net agreement with travel health statements – by profession

Net agree (strongly/ somewhat)	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Travelling internationally poses health risks that are not present in Canada	79%	83%	71%	82%
The gov't should invest more in informing HCPs about emerging travel health issues	74%	75%	71%	75%
Canadian government should invest more in informing the public about travel health risks	70%	68%	72%	70%
All int'l travellers should see a health care professional before they travel	68%	61%	69%	75%
I have enough access to info. resources to... address travel health patient concerns	48%	50%	36%	59%
Travel health risks are overblown, they are really not that serious	9%	11%	8%	7%

Q41-46 To what extent do you agree or disagree with the following statements:

BASE: Total

Agreement with these statements is generally similar across subgroups, and agreeing that travelling internationally poses health risks not present in Canada is a top response everywhere. Pharmacists are the most likely to agree they have enough access to information to address traveller concerns, or that all international travellers should see a HCPs before travelling. Having enough information is notably higher among those with more travel health focus in their practice (76% exclusive/primary and 58% somewhat, vs. 36% no travel health focus).

## D. Information needs

### 1. Interest in receiving additional professional education on international travel health

*Three-quarters of HCPs would be interested in receiving more professional education on international travel health.*

Three-quarters (76%) of HCPs indicate they would be very or somewhat interested in additional professional education on international travel health; two in ten are not interested. Two-thirds of nurses express interest (65%), lower than eight in ten physicians (79%) and close to nine in ten pharmacists (87%, with 40% of these being very interested).

#### Level of interest in receiving additional professional education on international travel health

Level of interest	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
<i>Net: Very/somewhat interested</i>	76%	79%	65%	87%
Very interested	33%	32%	27%	40%
Somewhat interested	44%	47%	37%	47%
<i>Net: Not very/at all interested</i>	19%	18%	28%	10%
Not very interested	13%	13%	17%	9%
Not at all interested	6%	5%	10%	1%
Not sure	5%	3%	8%	3%

Q55 How interested are you in receiving additional professional education on international travel health?

BASE: Total

Interest in additional travel information is very consistent across the country. It is higher among those with at least some travel health focus in their practice (89%) than those with none (64%), and also higher among those in larger practices (83% seeing over 50 patients per week vs. 70% seeing fewer) and those in larger communities (80% large, 76% medium, vs 66% small/rural).

## 2. Preferred formats for professional education on international travel health

*Of four possible formats to receive professional education on international travel health, HCPs are most likely to prefer online courses, by a considerable margin.*

HCPs were asked to indicate in which of four formats they would likely use to undertake professional education on international travel health (they could also write in another response). By far, the preferred method is via online courses (81%), followed by advisory publications (39%) or conferences (35%). Only one in ten (9%) would utilize classroom courses.

### Preferred formats for professional education on international travel health (MULTIPLE RESPONSES PERMITTED)

Preferred format	Total (n=908)	Physicians (n=327)	Nurses/NP (n=290)	Pharmacists (n=291)
Online courses	81%	75%	82%	88%
Reading advisory publications such as CATMAT or CDC recommendations	39%	42%	40%	35%
Conferences	35%	46%	29%	28%
Classroom courses	9%	9%	11%	8%
None of the above	2%	2%	3%	0%

Q56 In which format would you be most likely to undertake professional education on international travel health? (MULTIPLE RESPONSES PERMITTED)

BASE: Those at least marginally interested in receiving additional professional education on international travel health (n=908)

Online courses are the most preferred format across professions, regions and other subgroups. Close to half of physicians (46%) indicate they would be likely to attend conferences; interest in conferences is also higher among those whose practice has an exclusive or primary focus on travel health (59%). While online courses remain their top option (at 72%), older HCPs (age 60+) are more likely than their younger counterparts to say they would read advisory publications such as CATMAT or CDC recommendations (48%, vs. 37% of those younger).

### 3. Interest in receiving breaking information on emerging international travel health topics

Over eight in ten HCPs would in theory be at least somewhat interested in receiving breaking international health-related information.

Over eight in ten (83%) HCPs indicate they would be very or somewhat interested in receiving breaking information related to international travel health; one in ten would not be. Three-quarters of nurses express interest (76%), lower than is the case for physicians (83%) and pharmacists (89%, with 44% of these being very interested).

#### Level of interest in receiving breaking information on emerging international travel health topics

Level of interest	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
<i>Net: Very/somewhat interested</i>	83%	83%	76%	89%
Very interested	38%	38%	32%	44%
Somewhat interested	45%	46%	44%	46%
<i>Net: Not very/at all interested</i>	12%	12%	15%	7%
Not very interested	7%	9%	9%	5%
Not at all interested	4%	3%	7%	2%
Already receiving this	2%	2%	2%	0%
Not sure	4%	3%	6%	4%

Q57 How interested would you be in receiving breaking information on emerging international travel health topics?

BASE: Total

Level of interest in receiving breaking travel health information is quite similar across the country. As with professional education, interest in this is higher among those with at least some travel health focus in their practice, but still, about three-quarters (73%) with no such focus express interest in this area. Interest is higher among those who see over 50 patients per week (87%, vs. 79% who see fewer) and those in large (85%) and medium-sized (84%) communities (compared to 73% in small and rural locations). Overall interest is similar by age, but strong interest is highest among those age 60 and over (47%, vs. 35% of younger HCPs).

#### 4. Preferred ways to receive latest information on emerging international travel health topics

*E-mail bulletins are the preferred way to receive information on emerging international travel health topics, by a wide margin*

HCPs were shown three formats for receiving the latest information and asked which they would prefer (they could also write in another response). By far the most popular options is e-mail bulletins (83%), distantly followed by medical journal articles (32%). Only 15 percent would prefer to get emerging international travel health information via social media. Few wrote in other options, but two options mentions were updates to websites (1%) and online webinars (1%).

Preferences are quite similar across professions, regions, and other subgroups.

#### Preferred ways to receive latest information on emerging international travel health topics (MULTIPLE RESPONSES PERMITTED)

Preferred ways	Total (n=916)	Physicians (n=328)	Nurses/NP (n=301)	Pharmacists (n=287)
E-mail bulletins	83%	78%	83%	89%
Medical journal articles	32%	38%	28%	31%
Social media postings (e.g., Twitter, Facebook)	15%	10%	21%	15%
Other (1% or less each)	4%	5%	4%	1%
Not sure	3%	5%	4%	1%

Q58 How do you prefer to get the very latest information on emerging international travel health topics? (MULTIPLE RESPONSES PERMITTED)

BASE: Those at least marginally interested in receiving breaking information on emerging international travel health topics (n=916)

Preferences are generally quite similar across the country and most subgroups, with a few notable differences:

- Medical journal articles are mentioned more by those with at least some travel health focus (38% vs. 25% with no focus)
- Social media posts are preferred most by those under age 40 (24%) and least by those age 60+ (5%)

## 5. Level of trust in the accuracy of travel health information sources

When rating sources of travel health information, HCPs place high levels of trust in medical organizations, GOC websites, international/other country agencies, and peer-reviewed journals.

HCPs were asked to rate their level of trust in each of seven travel health information sources. Three-quarters or more trust each source at least somewhat, but the highest levels of trust are for medical organizations like the Canadian Medical Association (93%), Government of Canada websites (93%) and international agencies like the WHO or public health agencies of other countries, such as the CDC (92%). Professional colleagues are the least trusted source, but still, three-quarters trust these at least somewhat (23% trust completely).

### Level of trust in the accuracy of travel health information sources

Sources	Net trust (completely/somewhat)	Trust completely	Trust somewhat	Neither trust/distrust	Distrust somewhat	Distrust completely	Not sure
Medical organizations (e.g., Canadian Medical Association)	<b>93%</b>	62%	31%	4%	1%	0%	3%
Government of Canada websites (Canada.ca, Travel.gc.ca)	<b>93%</b>	61%	33%	3%	1%	0%	2%
Int'l agencies (e.g., WHO)/other country public health agencies (e.g., CDC)	<b>92%</b>	61%	31%	4%	1%	0%	2%
Scientific peer-reviewed journals	<b>89%</b>	51%	38%	7%	0%	0%	4%
Medical websites (Mayo Clinic, etc.)	<b>81%</b>	33%	48%	12%	3%	1%	4%
Committee to Advise on Tropical Medicine and Travel (CATMAT)	<b>78%</b>	51%	27%	7%	1%	0%	14%
My professional colleagues	<b>75%</b>	23%	53%	18%	2%	0%	4%

Q59-65 How much would you trust the following to have accurate information about international travel health information:

BASE: Total

Sources are ranked in similar ways across professions, regions and other subgroups. Nurses are less likely than physician and pharmacists to trust peer-reviewed journals, medical websites, CATMAT and their colleagues, but still, strongly majorities do trust those sources. CATMAT is most trusted in Quebec (84%). Trust in medical websites increases as age of practitioner increases (73% under age 40 up to 88% age 60+), and trust in CATMAT is higher among those age 50 and over (83%, vs. 75% under 50).



## Net trust in the accuracy of travel health information sources – by profession

<i>Net trust (completely/somewhat)</i>	<b>Total (n=1,016)</b>	<b>Physicians (n=356)</b>	<b>Nurses/NP (n=355)</b>	<b>Pharmacists (n=305)</b>
Medical organizations (e.g., Canadian Medical Association)	93%	93%	91%	96%
Government of Canada websites (Canada.ca, Travel.gc.ca)	93%	94%	91%	95%
Int'l agencies (e.g., WHO)/other country public health agencies (e.g., CDC)	92%	91%	90%	94%
Scientific peer-reviewed journals	89%	91%	85%	91%
Medical websites (Mayo Clinic, etc.)	81%	84%	75%	85%
Committee to Advise on Tropical Medicine and Travel (CATMAT)	78%	83%	68%	85%
My professional colleagues	75%	78%	71%	78%

Q59-65 How much would you trust the following to have accurate information about international travel health information:

BASE: Total

## 6. Travel health topics would learn more about

*HCPs are most interested in receiving additional information about recommended/required vaccinations and medications, communicable disease outbreaks and vector-borne illnesses*

Of a provided list of five travel health topics, HCPs are most likely to indicate they would like to learn more about recommended or required vaccinations and medications (76%), communicable disease outbreaks (72%) and vector-borne illnesses (65%). Close to six in ten (58%) would also like to learn more about food and water precautions that travellers should take to avoid illnesses, and half (49%) indicate an interest in knowing more about other general precautions. Five percent are not interested in learning more about travel health, and four percent are unsure.

Nurses have similar interests to the other health care professionals, except they are somewhat less likely to express interest in vaccinations and medications.

### Interested in learning more about specific travel health topics (MULTIPLE RESPONSES PERMITTED)

Topics	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Recommended/required vaccinations and medications	76%	79%	68%	82%
Communicable disease outbreaks (e.g., COVID-19, measles)	72%	72%	71%	73%
Vector-borne illnesses (Zika virus, West Nile, etc.)	65%	67%	61%	66%
Food and water precautions travellers should take to avoid illnesses	58%	54%	61%	59%
Other general precautions to protect the health of travelling Canadians	49%	50%	52%	43%
Not interested in learning more about travel health topics	5%	3%	8%	3%
Not sure	4%	4%	4%	3%

Q66 What travel health topics, if any, would you be interested in learning more about? (MULTIPLE RESPONSES PERMITTED)

BASE: Total

Responses are fairly similar across the country, but those in British Columbia are the most interested in knowing more about communicable diseases (83%) and those in Quebec are the most interested in vector-borne illnesses (75%). Interest is generally lower among those with no travel health focus in their practice, but notable proportions of these (from 48% up to 72%) are still interested in knowing more about these topics.

## E. Use and rating of travel health resources

### 1. Travel health risk knowledge information sources used

*Close to seven in ten HCPs turn to the Canada.ca website for travel health information for providing patients with advice.*

HCPs were shown a list of 10 potential sources of information and asked which they currently use to update their knowledge for providing patients with travel health advice. Almost seven in ten (68%) indicate the Canada.ca website, by far the most used resource. Four in ten (41%) look to medical journals, and just under this (37%) turn to CATMAT statements; one-third (34%) also use peer-reviewed medical websites. One-quarter or fewer use other individual resources, notably professional organization newsletters or medical textbooks (23% each) or webinars (21%). **One in ten HCPs indicate they use the CDC, a notable proportion as they were not shown this option.** They are least likely to use social media as sources for travel health information to pass along to their patients.

#### Travel health risk knowledge information sources used (MULTIPLE RESPONSES PERMITTED)

Sources used	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Canada.ca website	68%	63%	71%	70%
Medical journals	41%	46%	35%	42%
Statements from Committee to Advise on Tropical Medicine and Travel (CATMAT)	37%	43%	25%	45%
Peer reviewed medical websites	34%	35%	32%	36%
Medical textbooks/reference books	23%	25%	20%	26%
Professional association newsletter	23%	19%	20%	31%
Webinars	21%	19%	17%	30%
Conferences	18%	27%	11%	16%
Other advisory committee statements	11%	14%	11%	9%
CDC	10%	17%	5%	8%
Social media	5%	3%	6%	6%
Other (1% or less each)	10%	11%	16%	6%
Not sure	4%	2%	7%	2%

Q47 Where do you currently go for information to update your travel health risk knowledge, for providing patients with advice? (MULTIPLE RESPONSES PERMITTED)

BASE: Total

Sources used are generally fairly similar by profession, with pharmacists being the most likely to use professional association newsletters or webinars, physicians the most likely to attend conferences or consult the CDC, and nurses being less likely than the others to use CATMAT statements. There are few notable regional differences, except that Quebec HCPs are more likely than others to use conferences (27%). Those with any travel health focus in their practice are more likely than those with no such focus to use medical journals (64% with

exclusive/primary focus and 46% with some focus, vs. 33% with no focus) or webinars (42% exclusive/primary focus, 28% some focus, vs. 13% with no focus).

## 2. Travel health resource awareness/use

*Around nine in ten HCPs are aware of the advice available via travel.gc.ca and the Canada Immunization Guide; they are least likely to know about the Travel Smart app.*

HCPs were asked to indicate their use or awareness of six specific resources for travel health information. Nine in ten (91%) are aware of, and eight in ten (79%) use, travel advice and advisories on travel.gc.ca. Just under nine in ten (88%) are aware of, and just under three-quarters (73%) use, the Canadian Immunization Guide (CIG). Travel health notices are also high in awareness and use (83% aware, with 69% using). Fewer are aware of the other three resources, with the Travel Smart app having the lowest recognition (32% aware).

### Travel health resource awareness/use

Resource	NET: Used	Use this to explain travel health risks to patients	Use this for own knowledge / staying up to date	NET: Aware of resource (used+ aware)	Aware of resource but never used [exclusive option]	Not aware of resource [exclusive option]
Travel advice and advisories on travel.gc.ca	<b>79%</b>	50%	46%	<b>91%</b>	12%	9%
Canadian Immunization Guide (CIG)	<b>73%</b>	34%	53%	<b>88%</b>	15%	12%
Travel health notices	<b>69%</b>	39%	43%	<b>83%</b>	15%	17%
Committee to Advise on Tropical Medicine and Travel (CATMAT) statements	<b>37%</b>	16%	27%	<b>55%</b>	18%	45%
Canada Communicable Disease Report journal (CCDR)	<b>31%</b>	12%	22%	<b>53%</b>	22%	47%
Travel Smart app	<b>16%</b>	8%	9%	<b>32%</b>	16%	68%

Q48 The following travel health resources are published on the Government of Canada website. Please indicate if you use each of the following, for your own knowledge and/or in explaining travel health risks to patients.

BASE: Total

Use of these resources are fairly similar across health care professions, with some exceptions:

- Physicians are the most likely to use the Canada Communicable Disease Report journal (CCDR) (36%, vs. 27% of nurses and 28% of pharmacists)

- Nurses are less likely than others to use the Canadian Immunization Guide (68% vs. 76% of physicians and 75% of pharmacists) or CATMAT statements (27% vs. 42% of physicians and 43% of pharmacists).
- Nurses are also the likeliest to indicate not using any of these resources (15%, vs. 9% of others).

#### Used travel health resource – by profession

NET: Used resource	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
Travel advice and advisories on travel.gc.ca	79%	78%	76%	83%
Canadian Immunization Guide (CIG)	73%	76%	68%	75%
Travel health notices	69%	70%	66%	71%
Committee to Advise on Tropical Medicine and Travel (CATMAT) statements	37%	42%	27%	43%
Canada Communicable Disease Report journal (CCDR)	31%	36%	27%	28%
Travel Smart app	16%	17%	16%	13%

Q48 The following travel health resources are published on the Government of Canada website. Please indicate if you use each of the following, for your own knowledge and/or in explaining travel health risks to patients.

BASE: Total

Use of these resources is generally similar by region, except for Quebec, where HCPs are somewhat more likely than those in other regions to not use any of the resources (18% do not use any, compared to 7% to 10% elsewhere). Use of all resources is higher among those in practices that see over 50 patients per week.

### 3. Travel health resource frequency of use

Although the least used resource, one-quarter of those using the Travel Smart app use it at least weekly.

Those indicating they used specific resources were asked additional questions about up to two resources, to manage respondent burden. Resources were selected randomly by the programming, except that CATMAT was prioritized to ensure a sufficient number of users for analysis.

Three in ten or more users of each resource use it at least monthly, up to about half of those using the Canadian Immunization Guide (48%) or the Travel Smart app (49%); these two apps are the most likely to be used at least weekly. Very few use travel health resources on a daily basis.

#### Travel health resource frequency of use (Bases: Users asked about each resource)

Resource		NET: At least monthly	Net: At least weekly	Daily	Weekly	Monthly	Less than a few times a year
Travel Smart app	(n=154)	49%	25%	2%	23%	25%	51%
Canadian Immunization Guide	(n=333)	48%	19%	4%	15%	29%	52%
CATMAT statements	(n=375)	41%	14%	1%	13%	27%	59%
Travel.gc.ca	(n=333)	35%	7%	<1%	6%	28%	65%
CCDR	(n=195)	33%	11%	<1%	11%	22%	67%
Travel health notices	(n=333)	31%	6%	0%	6%	24%	69%

Q50 How often do you use...

BASE: Those asked about each resource (NOTE: HCPs were asked about up to two resources they used, to minimize respondent burden)

Those with at least some travel health focus in their practice are more likely than those with no such focus to use most resources at least monthly, with the exception of the CCDR where monthly usage is similar. Monthly use of most resources is also higher among those who see over 50 patients per week, except for travel.gc.ca advisories and the Travel Smart app (for the latter, weekly use is higher among those with larger practices, but monthly use is similar by number of patients seen). Age is not a notable factor in frequency of resource use.

Frequency of use of resources is generally quite similar by profession, with two exceptions: pharmacists are the most likely to use travel.gc.ca at least monthly, and nurses who use the Canadian Immunization Guide are more likely to use it weekly than are physicians or pharmacists.

**Travel health resource frequency of use – by profession**  
(Bases: Users asked about each resource)

Frequency of use of resources by profession	Total	Physicians	Nurses/NP	Pharmacists
<i>Canadian Immunization Guide (CIG)</i>				
Base asked	(n=333)	(n=107)	(n=129)	(n=97)
% using weekly	19%	11%	<b>29%</b>	13%
% using monthly	48%	45%	51%	46%
<i>Travel.gc.ca</i>				
Base asked	(n=333)	(n=104)	(n=123)	(n=106)
% using weekly	7%	4%	7%	9%
% using monthly	35%	31%	28%	<b>47%</b>
<i>Travel health notices</i>				
Base asked	(n=333)	(n=115)	(n=114)	(n=104)
% using weekly	6%	6%	4%	9%
% using monthly	31%	31%	23%	38%
<i>CCDR</i>				
Base asked	(n=195)	(n=77)	(n=62)	(n=56)
% using weekly	11%	16%	12%	4%
% using monthly	33%	37%	38%	23%
<i>Travel Smart app</i>				
Base asked	(n=154)	(n=61)	(n=53)	(n=40*)
% using weekly	25%	30%	24%	17%
% using monthly	49%	57%	47%	40%
<i>CATMAT statements</i>				
Base asked	(n=375)	(n=150)	(n=96)	(n=129)
% using weekly	14%	15%	19%	11%
% using monthly	41%	47%	38%	36%

Q50 How often do you use...

\*Note: Small base warning (<50) – caution is advised in interpreting results

#### 4. Travel health resource satisfaction

*Around six in ten HCPs are satisfied to some degree with the Canadian Immunization Guide (CIG), CATMAT statements, travel.gc.ca advice and the Travel Smart app; fewer are satisfied with CCDR reports or travel health notices.*

Users of the six resources were asked their level of satisfaction with them. Almost six in ten or more are satisfied to some extent with four resources, with satisfaction being highest for the Canadian Immunization Guide (62%) and CATMAT statements (62%), and just under six in ten are satisfied with travel.gc.ca information (58%) and the Travel Smart app (57%). Half (49%) are satisfied with the CCDR, and under half (44%) are satisfied with travel health notices.

**Travel health resource satisfaction**  
(Bases: Users asked about each resource)

Resource	NET: Satisfied	Very satisfied	Some-what satisfied	Neither	Net: Dissatisfied	Some-what dissatisfied	Very dissatisfied	Not sure
CIG (n=333)	62%	20%	42%	23%	5%	4%	<1%	11%
CATMAT (n=375)	62%	17%	44%	23%	3%	2%	1%	13%
Travel.gc.ca (n=333)	58%	14%	44%	25%	3%	3%	<1%	14%
Travel Smart app (n=154)	57%	12%	45%	22%	3%	2%	1%	17%
CCDR (n=195)	49%	10%	39%	31%	2%	1%	<1%	18%
Travel health notices (n=333)	44%	8%	35%	33%	1%	1%	0%	22%

Q51 How satisfied are you with...

BASE: Those asked about each resource

Those with at least some travel health focus in their practice are more likely than those with no such focus to be satisfied to some degree with the following resources:

- Travel.gc.ca (69% with at least some travel health focus to 48% with no focus)
- Travel health notices (51% to 37%)
- CCDR (55% to 40%)
- CATMAT (66% to 53%)

Other subgroup differences are not marked, including by profession.



**Travel health resource satisfaction – by profession**  
(Bases: Users asked about each resource)

Net satisfaction with resources by profession	Total	Physicians	Nurses/NP	Pharmacists
<i>Canadian Immunization Guide (CIG)</i>				
Base asked	(n=333)	(n=107)	(n=129)	(n=97)
% satisfied	62%	58%	59%	70%
<i>Travel.gc.ca</i>				
Base asked	(n=333)	(n=104)	(n=123)	(n=106)
% satisfied	58%	55%	54%	66%
<i>Travel health notices</i>				
Base asked	(n=333)	(n=115)	(n=114)	(n=104)
% satisfied	44%	42%	37%	52%
<i>CCDR</i>				
Base asked	(n=195)	(n=77)	(n=62)	(n=56)
% satisfied	49%	56%	45%	44%
<i>Travel Smart app</i>				
Base asked	(n=154)	(n=61)	(n=53)	(n=40*)
% satisfied	57%	61%	55%	53%
<i>CATMAT statements</i>				
Base asked	(n=375)	(n=150)	(n=96)	(n=129)
% satisfied	62%	70%	60%	53%

Q51 How satisfied are you with...

\*Note: Small base warning (<50) – caution is advised in interpreting results

## 5. What users like about travel health resources

Users of each resource were asked what they like about it (note this was a voluntary question and could be skipped.). In general, the main things liked about resources are being comprehensive, being easy to understand, and being up to date. Specific comments about each are presented in the tables below.

*Users of the CIG most value it being comprehensive and easy to follow; travel.gc.ca users like that it is current and easy to use.*

### What users like about travel health resources (top responses) (Bases: Users asked about each resource)

Reasons (5% or more)	Cdn Immunization Guide (n=219)
Complete/comprehensive/all necessary information in one place/all your need for travel guide	23%
Easy to follow/understand/user friendly	17%
Up to date/current	12%
Concise	11%
Good layout/well organized/easy to locate required information	10%
Full information/guidelines for vaccines	10%
Reliable/trusted source of information/evidence based	9%
Clear guidelines	8%
Easy to access	8%
Reasons (5% or more)	Travel info on travel.gc.ca (n=187)
Up to date/current	21%
Easy to follow/understand/user friendly	19%
Complete/comprehensive/all necessary information in one place/all your need for travel guide	12%
Good layout/well organized/easy to locate required information	11%
Covers international places/countries/diseases/what outbreaks in which area	11%
Clear guidelines	11%
Concise	10%
Easy to access	8%
Reliable/trusted source of information/evidence based	7%

Q52 What do you like about...

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

*Users of travel health notices like that these are up to date and comprehensive; Travel Smart users like that it is easy to use and comprehensive.*

**What users like about travel health resources (top responses)**  
(Bases: Users asked about each resource)

<b>Reasons (5% or more)</b>	<b>Travel health notices (n=182)</b>
Up to date/current	23%
Complete/comprehensive/all necessary information in one place/all your need for travel guide	20%
Concise	10%
Reliable/trusted source of information/evidence based	7%
Clear guidelines	6%
Easy to follow/understand/user friendly	6%
Covers international places/countries/diseases/what outbreaks in which area	5%
Easy to access	5%
<b>Reasons (5% or more)</b>	<b>Travel Smart app (n=95)</b>
Easy to follow/understand/user friendly	37%
Complete/comprehensive/all necessary information in one place/all your need for travel guide	20%
Easy to access	15%
Up to date/current	7%
Concise	5%
Quick	5%

Q52 What do you like about...

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

Users of CATMAT and CCCR most appreciate these are comprehensive.

**What users like about travel health resources (top responses)**  
(Bases: Users asked about each resource)

<b>Reasons (5% or more)</b>	<b>CATMAT (n=226)</b>
Complete/comprehensive/all necessary information in one place/all your need for travel guide	29%
Reliable/trusted source of information/evidence based	17%
Up to date/current	17%
Concise	6%
Covers international places/countries/diseases/what outbreaks in which area	6%
Easy to access	6%
Easy to follow/understand/user friendly	5%
Good layout/well organized/easy to locate required information	5%
<b>Reasons (5% or more)</b>	<b>CCDR (n=112)</b>
Complete/comprehensive/all necessary information in one place/all your need for travel guide	30%
Up to date/current	15%
Reliable/trusted source of information/evidence based	13%
Concise	9%
Easy to access	8%
Covers international places/countries/diseases/what outbreaks in which area	7%
Good layout/well organized/easy to locate required information	5%

Q52 What do you like about...

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

There are no notable patterns in subgroup mentions of what is liked about resources.

## 6. What users think could be improved about travel health resources

Users of each resource were asked what they think could be improved (note this was a voluntary question and could be skipped.). In general, the main improvements are increased user friendliness and more frequent updates. Specific comments about each are presented in the tables below.

*Users of the CIG and travel.gc.ca think they could be more user friendly and have regular or daily updates on changing conditions re vaccines.*

### What users think could be improved about travel health resources (top responses) (Bases: Users asked about each resource)

Suggestions (5% or more)	Cdn Immunization Guide (n=207)
More user friendly/easier to search for what I want	11%
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	9%
More organized/better layout of the site to find information quickly/have integrated streamlined tools/tabs	9%
Availability in app format	7%
Better accessibility/easier to access online/offline	6%
Suggestions (5% or more)	Travel info on travel.gc.ca (n=179)
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	6%
More user friendly/easier to search for what I want	6%
More concise/more tables summarizing information	6%
Make it more complete/comprehensive in one place information/links to more detailed information	6%
Notifications/emails when significant changes/updates have been made	5%

Q53 How could (resource) be improved (how could it be made more useful to you?)

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

*Users of travel health notices suggest notifications about significant changes and better online accessibility; those using the Travel Smart app suggest making it more comprehensive and easier to access online;*

**What users think could be improved about travel health resources (top responses)**  
(Bases: Users asked about each resource)

<b>Suggestions (5% or more)</b>	<b>Travel health notices (n=178)</b>
Notifications/emails when significant changes/updates have been made	7%
Better accessibility/easier to access online/offline	6%
Increase awareness/alert doctors of its availability	6%
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	5%
<b>Suggestions (5% or more)</b>	<b>Travel Smart app (n=91)</b>
Make it more complete/comprehensive in one place information/links to more detailed information	12%
Better accessibility/easier to access online/offline	10%
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	9%
More organized/better layout of the site to find information quickly/have integrated streamlined tools/tabs	5%
Fix it/it frequently crashes during use	5%

Q53 How could (resource) be improved (how could it be made more useful to you?)

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

*CATMAT users mention more regular updates on changing vaccine conditions and more concise tables summarizing information; users the CCDR suggest notifications about significant changes and better online accessibility.*

**What users think could be improved about travel health resources (top responses)**  
 (Bases: Users asked about each resource)

<b>Suggestions (5% or more)</b>	<b>CATMAT (n=205)</b>
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	10%
More concise/more tables summarizing information	9%
Notifications/emails when significant changes/updates have been made	6%
Better accessibility/easier to access online/offline	5%
More user friendly/easier to search for what I want	5%
<b>Suggestions (5% or more)</b>	<b>CCDR (n=106)</b>
Better accessibility/easier to access online/offline	9%
More organized/better layout of the site to find information quickly/have integrated streamlined tools/tabs	8%
More user friendly/easier to search for what I want	7%
Notifications/emails when significant changes/updates have been made	7%
Increase awareness/alert doctors of its availability	6%
Regular/daily updates on changing conditions re vaccines, where to go for help when travelling, antibiotic recommendations, etc.	5%

Q53 How could (resource) be improved (how could it be made more useful to you?)

BASE: Those asked about each resource (NOTE: respondents were allowed to skip this question)

Again, subgroup differences are generally minor and there are no clear patterns.

## 7. CATMAT topics/resource used most often

*The CATMAT topics/resources consulted most often relate to malaria, COVID-19 and travellers' diarrhea.*

Users of CATMAT were shown an extensive list of topics and resources and asked which they use most often. Half or more use information on malaria (61%), COVID-19 (56%) and traveller's diarrhea (53%); fewer use others.

### CATMAT topics/resource used most often (MULTIPLE RESPONSES PERMITTED)

Topic	Use CATMAT (n=375)	Physicians (n=150)	Nurses/NP (n=96)	Pharmacists (n=129)
Malaria	61%	65%	47%	67%
COVID-19	56%	57%	62%	50%
Traveller's diarrhea	53%	56%	43%	55%
Hepatitis during travel	39%	34%	37%	47%
Cruise ship travel	33%	33%	32%	34%
Dengue fever	29%	42%	24%	17%
Fever in the returning international traveller	28%	42%	20%	18%
Yellow fever	28%	31%	21%	29%
Zika virus	27%	36%	20%	21%
High altitude illness	24%	27%	19%	24%
Travel medicine resources for Cdn practitioners	24%	32%	20%	18%
Pregnancy and travel	23%	23%	27%	18%
Immunocompromised travellers	21%	20%	23%	21%
Evidence-based process for dev. guidelines/recs	19%	18%	16%	21%
Older travellers	19%	20%	23%	14%
Japanese encephalitis	18%	20%	14%	19%
Arthropod bites	16%	26%	11%	9%
Meningococcal disease	16%	21%	11%	14%
Ebola virus disease	15%	16%	18%	12%
Pediatric travellers	15%	16%	14%	17%
Rabies	15%	18%	10%	15%
Motion sickness	13%	10%	12%	17%
Tuberculosis	12%	15%	13%	9%
Jet lag	11%	7%	13%	13%
Risk of injury and travel	9%	9%	12%	6%
Polio	7%	7%	8%	5%
Strongyloidiasis	5%	9%	4%	2%
Other	1%	1%	2%	0%
Not sure	5%	4%	8%	5%

Q49 Which Committee to Advise on Tropical Medicine and Travel (CATMAT) topics/resources do you use most often? (MULTIPLE RESPONSES PERMITTED) / BASE: Those using CATMAT (n=375)



Physicians are the most likely to use CATMAT information on the following topics:

- Dengue fever (42%)
- Fever in the returning international traveller (42%)
- Zika virus (36%)
- Arthropod bites (26%)

Topic usage is generally similar across the country, but HCPs in Quebec are the most likely to use information on Dengue fever (43%, vs. 12% to 28% elsewhere). Older HCPs (age 60+) are the most likely to use information on malaria (75%), traveller's diarrhea (66%), Dengue fever (49%), Zika virus (39%) and older travellers (32%).

Those with at least some travel health focus in their practice are more likely than those who do not to use information on the following:

- Fever in the returning international traveller (33% vs. 18%)
- Evidence-based process for developing guidelines and recommendations (22% vs. 12%)
- Japanese encephalitis (22% vs. 9%)
- Arthropod bites (20% vs. 8%)
- Rabies (18% vs. 9%)
- Motion sickness (15% vs. 8%)
- Polio (9% vs. 2%)
- Strongyloidiasis (7% vs. 2%)

## 8. Other travel health risk knowledge information sources used

*Close to six in ten HCPs also use WHO publications for their own information or to explain travel health risks to their patients; just under four in ten use the CDC Yellow Book.*

HCPs were asked what other resources they use for their own knowledge and/or in explaining travel health risks to patients. They were shown a list of three resources and were able to write in additional ones. Close to six in ten (58%) use World Health Organization publications or its website; just under four in ten (37%) use the CDC Yellow Book, and about one in ten (8%) use the Travax online tool. Two in ten (22%) do not use other travel health resources.

Seven percent mentioned something else, including searching the Internet for travel health information (1%), the Institut national de santé publique du Québec (INSPQ) (1%), uptodate.com (1%) and Protocole d'immunisation du Québec (PIQ) (1%).

Use of other resources is generally similar by profession, except that nurses are less likely than other professions to report using the CDC Yellow Book.

### Other travel health risk knowledge information sources used (MULTIPLE RESPONSES PERMITTED)

Sources	Total (n=1,016)	Physicians (n=356)	Nurses/NP (n=355)	Pharmacists (n=305)
World Health Organization publications/website	58%	54%	63%	58%
CDC Yellow Book	37%	47%	24%	40%
Travax online tool	8%	7%	9%	6%
CDC travel website	2%	4%	1%	0%
Other (1% or less each)	7%	8%	8%	5%
No other resources	22%	20%	25%	22%

Q54 What other resources do you use for your own knowledge and/or in explaining travel health risks to patients? (MULTIPLE RESPONSES PERMITTED)

BASE: Total

There are two notable regional differences: Quebec HCPs are less likely than others to use WHO publications (47%, vs 59% to 65% elsewhere), and HCPs in British Columbia are the most likely to use the CDC Yellow Book (46%, vs. 28% to 40% elsewhere).

Those with at least some travel health focus in their practice are more likely than those with no such focus to use WHO publications (63% vs. 53%), the CDC Yellow Book (46% vs. 27%) or the Travax online tool (10% vs 4%). Use of the Yellow Book and the Travax tool is especially high among those with exclusive or primary travel health focus (Yellow Book 59%, Travax 29%). Use of resources is quite similar by age of practitioner, except use of the CDC Yellow Book is highest among those under age 40 (46%).

## F. Profile of respondents

### 1. Personal characteristics

<i>Characteristic</i>	<b>Total (n=1,016)</b>	<b>Physicians (n=356)</b>	<b>Nurses/NP (n=355)</b>	<b>Pharmacists (n=305)</b>
<b>Age</b>				
<30	4%	2%	6%	2%
30-39	30%	20%	30%	41%
40-49	24%	20%	27%	25%
50-59	22%	23%	22%	20%
60-64	10%	13%	9%	7%
65+	11%	22%	6%	5%
<b>Gender</b>				
Female	64%	44%	89%	58%
Male	32%	51%	8%	36%
Other/not stated	4%	4%	3%	7%
<b>Region</b>				
BC/Territories	13%	13%	12%	14%
Alberta	12%	12%	12%	13%
Saskatchewan	3%	3%	4%	2%
Manitoba	4%	3%	4%	5%
ON	37%	37%	36%	37%
QC	23%	24%	23%	22%
Atlantic	7%	7%	8%	7%

**2. Practice characteristics**

<i>Characteristic</i>	<b>Total (n=1,016)</b>	<b>Physicians (n=356)</b>	<b>Nurses/NP (n=355)</b>	<b>Pharmacists (n=305)</b>
<b>Primary profession</b>				
RN or Nurse Practitioner	35%	0%	100%	0%
Family Physician/GP/Resident	34%	95%	0%	0%
Travel health physician	1%	3%	0%	0%
Infectious disease physician	<1%	1%	0%	0%
Pharmacist	30%	0%	0%	100%
<b>Type of practice setting</b>				
Solo practice	6%	15%	3%	0%
Family medicine clinic	24%	50%	16%	2%
Hospital setting	16%	11%	27%	8%
Walk-in clinic/Urgent Care	3%	6%	2%	-
Multi-disciplinary clinic	7%	8%	7%	4%
Specialized travel health centre/clinic	1%	1%	1%	0%
Community health centre	8%	3%	18%	3%
Long term care residence	2%	1%	5%	1%
Public Health clinic/setting	5%	2%	11%	0%
Pharmacy	25%	0%	2%	79%
Other	4%	3%	8%	2%
<b>Languages used with patients</b>				
English	84%	86%	81%	85%
French	31%	32%	32%	28%
Other	7%	9%	3%	9%
<b>Practice community size</b>				
Large urban population centre	63%	70%	54%	63%
Medium population centre	18%	17%	22%	16%
Small population centre	16%	11%	18%	20%
Rural location	3%	2%	6%	1%

<i>Characteristic</i>	<b>Total (n=1,016)</b>	<b>Physicians (n=356)</b>	<b>Nurses/NP (n=355)</b>	<b>Pharmacists (n=305)</b>
<b>Number of patients seen per week</b>				
<i>Net: 50 or less</i>	50%	32%	75%	43%
<20	27%	14%	40%	29%
20 to 50	23%	18%	36%	14%
<i>Net: 51+</i>	50%	68%	25%	57%
51 to 80	15%	22%	14%	6%
81 to 110	11%	20%	6%	5%
111 to 140	7%	14%	1%	7%
Over 140	17%	12%	3%	39%

## Appendix A: Methodology

### *Sample design*

This assignment involved quantitative research, consisting of an online panel-based survey of 1,000 health care practitioners in Canada in three groups: general practitioners/physicians, nurses/nurse practitioners and pharmacists. The aim was for a minimum of 200 of the respondents to have specific training and expertise in the area of providing travel health-related advice – on discussion with PHAC this was determined by whether or not their practice was at least somewhat focused on travel health. The survey was administered in English and French depending on the respondent's preference.

The survey sample was obtained from a proprietary panel of health care professionals, MDBriefCase. MDBriefCase was responsible for inviting and directing qualified respondents to the survey hosted by Environics. With an opt-in membership of more than 103,000 pre-profiled healthcare professionals, broken out by occupation, with whom MDBriefCase regularly interacts, this panel provides a cost-effective mechanism to engage HCPs in a timely manner. As this online survey utilized an opt-in list of health care professionals, it is a non-probability survey. Thus it cannot be assumed to be fully representative of the target population and no margin of sampling error is calculated.

PHAC requires the final sample to be reflective in terms of region and health care provider type. Environics proposed a regional distribution based on CIHI population data. The following table shows the responses achieved:

Completed interviews	Total	BC	Prairies	Ontario	Quebec	Atlantic	Physicians	Nurses/ Nurse Practitioners	Pharmacists
Number of interviews	1,016	142	212	366	215	81	356	355	305
% of interviews	100%	14%	21%	36%	21%	8%	35%	35%	30%

Respondents were offered an incentive of \$35 for their participation, to ensure the desired level of participation. MDBriefCase was responsible for providing incentives to their panellists through gift cards.

### *Questionnaire design*

Environics worked with PHAC to develop a questionnaire that ensured the research objectives were met and all questions were appropriately worded, and that it adhered to federal government standards for public opinion research. Upon approval from PHAC, the questionnaire was translated into French.

The survey was originally contracted in 2019, to be conducted in 2020. As a result of the COVID-19 pandemic, the survey was delayed until such time as it was felt health care professionals would be in a position to respond to surveys on non-urgent topics. The questionnaire had been programmed and translated prior to the shutdown. When work resumed, PHAC carefully reviewed the questionnaire and minor changes were required

to ensure it reflected the impact of the pandemic and clarified timeframes for respondents. The final study questionnaire is included in Appendix B.

### ***Pre-test***

Following programming of the online survey, Environics provided PHAC with a test link for review, and prior to the launch of this survey, Environics arranged to conduct pretests in both official languages. For the pretests, Environics selected a limited number of records and conducted a “soft launch” in each language. These preliminary surveys included standard Government of Canada pretest probing questions at the end, to ascertain the survey length and language was appropriate. The English pretest took place over a period of two weeks in June and achieved 58 responses (30 English and 28 French). The pretest responses were retained in the data set.

### ***Fieldwork***

The online survey was conducted from June 26-August 15, 2022. The final average survey length was 18.5 minutes.

The surveys were conducted by Environics using a secure, fully featured web-based survey environment. Environics' data analysts programmed the questionnaires then performed thorough testing to ensure accuracy in set-up and data collection. This validation ensured that the data entry process conformed to the surveys' basic logic. The data collection system handles sampling invitations, quotas and questionnaire completion (skip patterns, branching, and valid ranges).

Environics assumed overall responsibility for all aspects of the survey fieldwork. The survey was conducted according to the following steps:

- Environics programmed and hosted the online survey on a secure server. All data were stored on Canadian servers and Canadian back-up servers located and only accessible in Canada, and physically independent from all other databases, directly or indirectly, that are located outside Canada.
- Invitation e-mails including a unique URL link (to ensure only one version of the survey is accepted per respondent) were sent to panel members.
- Technical support was provided to online survey respondents as required. Steps were taken to assure (and also guarantee) complete confidentiality and anonymity of survey responses.
- All survey responses were electronically captured as they were submitted and combined into an electronic data file that was coded and analyzed (including open-ended responses).

All respondents were offered the opportunity to complete the surveys in their official language of choice. All survey respondents were informed of Government of Canada's sponsorship of the research, that their participation was voluntary, and that information collected was protected under the authority of privacy legislation.

All research work was conducted according to best practices in the industry, such as the Standards for the Conduct of Government of Canada Public Opinion Research – Online Surveys (<http://www.tpsgc->

[pwgsc.gc.ca/rop-por/enligne-online-eng.html](http://pwgsc.gc.ca/rop-por/enligne-online-eng.html)) as well as applicable federal legislation (Personal Information Protection and Electronic Documents Act, or PIPEDA). Environics is a founding member of the Canadian Research Insights Council (CRIC) and registered the survey with CRIC's Research Verification System, which permits the public to verify a survey call, inform themselves about the industry and/or register a complaint. For more information about CRIC: <https://www.canadianresearchinsightscouncil.ca/>

### Data coding, tabulation and weighting

Following data collection and prior to analysis, data analysts performed a data-cleaning and validation process, in accordance with the highest industry standards. Open-ended question data were coded and Environics designed banner tables in consultation with the project authority. Data tables were submitted in CSV format.

After the data were collected, minor weighting was used to ensure the sample is representative of these health care professions across the country. The weighting was based on 2020 data from the Canadian Institute for Health Information for these professions by region.

WEIGHTING	Year	ATL	QC	ON	MB/SK	AB	BC/TERR	CANADA
Pharmacists	2020	7.4%	21.7%	37.0%	7.5%	12.6%	13.7%	100.0%
Physicians	2020	6.9%	23.9%	36.7%	6.0%	12.1%	14.4%	100.0%
Regulated nurses	2020	8.2%	23.2%	36.4%	7.5%	12.2%	12.5%	100.0%

### Non-response analysis

The following table compares the survey respondents to the closest professional categories available in CIHI data for 2020; the survey somewhat over-represents older physicians and under-represents younger pharmacists and nurses, but otherwise is close to the distribution of health care practitioners in Canada.

Proportions by profession (read across)	CIHI 2020					Travel Health Survey				
	Gender		Age			Gender		Age		
	Male	Female	<30	30-59	60	Male	Female	<30	30-59	60+
Pharmacists	38	62	12	78	10	38	62	2	86	12
Physicians	60	40	4	73	23	54	46	2	63	35
Regulated nurses	9	91	17	72	11	8	92	6	78	15

#### Notes:

CIHI gender: excludes PEI and Quebec (no data available for 2020)

Survey gender: excludes those preferring not to respond and other gender identification to correspond to CIHI gender categories

CIHI age: excludes PEI, Quebec and Manitoba (no data available for 2020)



**Completion results**

The completion results for survey are presented in the following table.

**Online survey contact disposition**

<b>Disposition</b>	<b>N</b>
Broadcasts delivered (c)	196,427
Completed (d)	1,016
Qualified respondent break-off (e)	779
Disqualified (f)	389
Did not respond (g)	193,036
Quota filled (h)	1,207
<b>Contact rate (d+e+f+h)/c</b>	<b>1.73</b>
<b>Participation rate (d+f+h)/c</b>	<b>1.33</b>

## Appendix B: Survey questionnaire

Environics Research Group

May 26, 2022

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**Public Health Agency of Canada / Agence de la santé publique du Canada**

**Travel Health Survey – Health Care Professionals**

**Final Questionnaire**

*Online survey conducted with n=1,000 health care providers:*

*350 with GPs, 350 nurses, 300 pharmacists;*

*15-minute average length*

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### E-MAIL INVITATION

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

Dear [CONTACT],

You are invited to participate in an online survey about travel health, an important issue facing health care 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 \$35 (CAD) Virtual Visa electronic Gift card!

The survey will take about 15 minutes to complete. You will be asked about your experiences with, and opinions about, travel health advice given to patients. The survey is voluntary and your responses will be kept entirely confidential and anonymous. Your decision on whether or not to participate will not affect any dealings you may have with the Government of Canada. Please do NOT include personal information or information about specific cases in your answers to the survey questions.

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:

**INSERT LINK**

If you have any questions about the survey, please contact Brenda Sharpe of Environics Research by phone (613-699-6886) or email ([brenda.sharpe@environics.ca](mailto:brenda.sharpe@environics.ca)).

This study has been registered with the Canadian Research Insights Council's Research Verification Service so that you may validate its authenticity. If you would like to enquire about the details of this research, you can visit CRIC's website [www.canadianresearchinsightscouncil.ca](http://www.canadianresearchinsightscouncil.ca) and reference project code 20220526-EN403 .

## LANDING PAGE / PAGE D'ACCUEIL

Welcome and thank you for your interest in our survey / Bienvenue et merci de l'intérêt que vous portez à ce sondage.

Please select your preferred language for completing the survey / Veuillez choisissez votre langue préférée pour remplir le sondage

01–English / Anglais

02 – Français / French

## PAGE BREAK

This study has been registered with the Canadian Research Insights Council's Research Verification Service so that you may validate its authenticity. If you would like to enquire about the details of this research, you can visit CRIC's website [www.canadianresearchinsightscouncil.ca](http://www.canadianresearchinsightscouncil.ca) and reference project code 20220526-EN403.

## PUT IN BOX

### About this survey

#### What about your personal information?

- The personal information you provide to the Public Health Agency of Canada is governed in accordance with the *Privacy Act* and is being collected under the authority of section 4 of the Department of Health Act in accordance with the *Treasury Board Directive on Privacy Practices*. We only collect the information we need to conduct the research project.
- **Purpose of collection:** We require your personal information such as demographics (e.g. age, gender, etc.) to better understand the topic of the research. However, your responses are always combined with the responses of others for analysis and reporting; you will never be identified.
- **For more information:** This personal information collection is described in the standard personal information bank [Public Communications – PSU 914](#), in Info Source, available online at [infosource.gc.ca](http://infosource.gc.ca).
- **Your rights under the *Privacy Act*:** In addition to protecting your personal information, the *Privacy Act* gives you the right to request access to, and correction of, your personal information. For more information about these rights, or about our privacy practices, please contact the Public Health Agency of Canada at [phac.privacy-vieprivee.aspc@canada.ca](mailto:phac.privacy-vieprivee.aspc@canada.ca). You also have the right to file a complaint with the Privacy Commissioner of Canada if you think your personal information has been handled improperly.
- Your personal information will be collected, used, retained and disclosed by Environics in accordance with the applicable provincial privacy legislation or the Personal Information Protection and Electronic Documents Act (PIPEDA). Please click [here](#) to review Environics' privacy policy.
- Your survey answers will remain anonymous and will not be attributed to you in any way.

#### What happens after the survey?

- The final report written by Environics will be available to the public on the Library and Archives Canada website: <http://www.bac-lac.gc.ca/>.

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If you have any questions about the survey, please contact Environics at [Brenda.sharpe@environics.ca](mailto:Brenda.sharpe@environics.ca)

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< PROGRAMMING NOTE: All questions are mandatory unless otherwise indicated.>

### Screening

1. In what province or territory do you practice?

*Select one only*

DROP DOWN LIST – SEE QUOTAS

- 01 British Columbia
- 02 Alberta
- 03 Saskatchewan
- 04 Manitoba
- 05 Ontario
- 06 Quebec
- 07 New Brunswick
- 08 Nova Scotia
- 09 Prince Edward Island
- 10 Newfoundland and Labrador
- 11 Yukon
- 12 Northwest Territories
- 13 Nunavut
- 98 Practicing outside Canada **THANK AND TERMINATE:** “Thank you. We are only looking for health care professionals working in Canada at this time.”

2. What is your **primary** profession?

*Select one only*

- 01 Registered Nurse (RN) or Nurse Practitioner
  - 02 Family Physician/General Practitioner/Resident
  - 03 Travel health physician
  - 04 Infectious disease physician
  - 05 Pharmacist
  - 88 Other **THANK AND TERMINATE**
- 02 + 03 + 04 = PHYSICIAN QUOTA (N=350)**  
**THANK AND TERMINATE WHEN QUOTA ACHIEVED FOR PROFESSION IF Q3 QUOTA MET**  
**SOFT REGION QUOTAS BY PROFESSION**

### Current practices

Please answer the following questions as they reflect your current practice moving forward. Try not to focus on pre-pandemic or during the pandemic.

3. Which of the following best describes your professional practice related to **international travel medicine**?

*Select one only*

- 01 My practice is exclusively focused on travel health
- 02 My practice is primarily focused on travel health
- 03 My practice is somewhat focused on travel health
- 99 None of the above

01+02+03 = TRAVEL ED QUOTA (N=200)

ASK Q4 IF NOT 1 AT Q3

4. What do you do when/if patients approach you/your office for travel health information prior to travel?

*Select all that apply*

- 01 Refer them to a private clinic/specialized travel clinic
- 02 Take the appointment and provide advice/recommendations
- 99 Other (*please specify*)

ASK ALL

- 4b. How many patients do you see in a typical week? Include all patients, including those who visit you for travel and non-travel related reasons.

- 01 - Less than 20
- 02 - 20 to 50
- 03 - 51 to 80
- 04 - 81 to 110
- 05 - 111 to 140
- 06 - Over 140

5. On average, how frequently do you provide travel health advice to your patients?

*Select one only*

- 01 Often
- 02 Sometimes
- 03 Rarely
- 04 Never
- 98 It varies

6. How frequently, if ever, do you introduce the topic of travel health during unrelated or routine visits with your patients?

*Select one only*

- 01 Often
- 02 Sometimes
- 03 Rarely
- 04 Never
- 98 It varies

7. Which of the following **travel health risk** advice or services do you provide to patients?

*Select all that apply*

- 01 Risk assessment (individualized risk assessment based on patient overall health, health history, and travel itinerary)
- 02 Travel vaccination recommendations and prescriptions
- 03 Administering travel vaccinations
- 04 Prescribing medication to prevent travel-related illness (e.g. chemoprophylaxis for malaria)
- 05 General travel advice and education (vector, food, water-borne diseases, hand hygiene)
- 06 Post-travel follow-up or post-travel illness diagnosis
- 07 Advice or treatment specifically related to travellers' diarrhea
- 97 None of the above **SINGLE MENTION**

How **confident** do you feel about providing the following information or services related to travel health to your patients? **SHOW 8-14 TO ALL**

- 8. Risk assessment (individualized risk assessment based on patient overall health, health history, and travel itinerary)
- 9. Travel vaccination recommendations and prescriptions
- 10. Administering travel vaccinations
- 11. Prescribing medication to prevent travel-related illness (e.g. chemoprophylaxis for malaria)
- 12. General travel advice and education (vector, food, water-borne diseases)
- 13. Post-travel follow-up in case of illness
- 14. Advice or treatment specifically related to travellers' diarrhea
  - 01 Very confident
  - 02 Somewhat confident
  - 03 Not very confident
  - 04 Not at all confident
  - 97 Do not provide this information/service

## IF 07 AT Q7 ASK Q15

15. Which prescriptions do you typically give your patients for travellers' diarrhea?

*Select all that apply*

- 01 Fluoroquinolones
- 02 Azithromycin
- 03 Other antibiotics
- 04 Bismuth subsalicylate
- 05 Antimotility agents e.g. loperamide (Imodium), diphenoxylate with atropine (Lomotil)
- 06 Opiates such as paregoric, tincture of opium, codeine or morphine
- 07 Other medication/treatments (*please specify*)
- 97 Do not provide this type of treatment – would refer **SINGLE MENTION**
- 99 Not sure **SINGLE MENTION**

## IF 01, 02 or 03 AT Q15 ASK A16

16. For which patients do you recommend antibiotics for self-treatment of travellers' diarrhea?

*Select all that apply*

- 01 Young children
- 02 Healthy adults
- 03 Adults with chronic conditions or who are immunocompromised
- 04 Seniors
- 97 Other (*please specify*)
- 98 None **SINGLE MENTION**
- 99 Not sure **SINGLE MENTION**

17. Which of the following topics are most often requested from patients seeking travel health advice?

*Select all that apply*

- 01 Information on communicable disease outbreaks/pandemics specific to the patient's travel itinerary, including COVID-19
- 02 Information of what diseases or illnesses they could contract from food/water/animals/insects while travelling and how to protect themselves (e.g. insect bite prevention; hand washing)
- 02 Travel vaccination recommendations/requirements specific to the patient's travel itinerary
- 03 Prescriptions for medical prophylaxis (e.g. chemoprophylaxis for malaria)
- 04 A routine immunization schedule review (including annual flu shot)
- 06 Post-travel illness advice (what to do if they feel sick after they return home)
- 07 Information or medication to prevent travellers' diarrhea, hepatitis A and B
- 08 Information on sexually transmitted infections abroad (including drug resistant strains found abroad)
- 09 Information on the safety or suitability of travel for children
- 10 Other precautions to protect the patient's health (*please specify*)
- 98 None of the above **SINGLE MENTION**
- 99 Not sure **SINGLE MENTION**

18. Do you, as part of your advice on immunization for patients presenting for travel advice, typically do any of the following?

*Select all that apply*

- 01 Offer routine immunization booster doses
- 02 Check for country-specific outbreak information, including for COVID-19
- 03 Accelerate the routine or travel-related vaccine schedules based on the patient's destination
- 04 Verify the patient's vaccination history matches the recommendations for international travellers set out in the Canadian Immunization Guide or similar advisory recommendations
- 97 I do not provide advice on immunization **SINGLE MENTION**
- 99 Not sure **SINGLE MENTION**

19. For which countries or travel region(s) did you provide advice or treatment in the past five (5) years?

*Select all that apply*

- 01 Africa
- 02 Asia
- 03 Australia or New Zealand
- 04 Caribbean
- 05 Central America and Mexico
- 06 Europe
- 07 Middle East
- 08 Other Pacific islands (Fiji, Tahiti, Papua New Guinea, etc.)
- 09 South America
- 10 United States
- 11 Territories of the United States (Puerto Rico, Guam, Virgin Islands)
- 97 Elsewhere (*please specify*)
- 98 None **SINGLE MENTION**
- 99 Not sure **SINGLE MENTION**



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**Risk perceptions**

In your professional opinion, please indicate the level of travel health/communicable disease risk (including COVID-19) for Canadians travelling to each of the following locations: (Note: this excludes trauma/accidents and personal security issues)

20. Africa
21. Asia
22. Australia/ New Zealand
23. Caribbean
24. Central America/Mexico
25. Europe
26. Middle East
27. Other Pacific islands (Fiji, Tahiti, Papua New Guinea, etc.)
28. South America
29. United States
30. Territories of the United States (Puerto Rico, Guam, Virgin Islands)
  - 01 No risk
  - 02 Low risk
  - 03 Moderate risk
  - 04 High risk
  - 99 Not sure
31. From what you know or have heard, have risks to Canadians due to international health issues increased, decreased, or remained the same in the past 10 years? (Note: this excludes trauma/accidents and personal security issues)
  - 01 Increased
  - 02 Remained the same
  - 03 Decreased
  - 99 Not sure

32. In your view, what are the most important topics to discuss with patients who will be travelling internationally?

*Select up to three*

- 01 Information on communicable disease outbreaks/pandemics specific to the patient's travel itinerary, including COVID-19
- 02 Information of what diseases or illnesses they could contract from food/water/animals/insects while travelling and how to protect themselves (e.g. insect bite prevention; hand washing)
- 02 Travel vaccination recommendations/requirements specific to the patient's travel itinerary
- 03 Prescriptions for medical prophylaxis (e.g. chemoprophylaxis for malaria)
- 04 A routine immunization schedule review (including annual flu shot)
- 06 Post-travel illness advice (what to do if they feel sick after they return home)
- 07 Information or medication to prevent travellers' diarrhea, hepatitis A and B
- 08 Information on sexually transmitted infections abroad (including drug resistant strains found abroad)
- 09 Information on accident prevention while travelling
- 10 Other precautions to protect the patient's health (*please specify*)
- 98 *None of the above* SINGLE MENTION
- 99 Not sure SINGLE MENTION

### Barriers

How much of a barrier is each of the following when it comes to providing travel health recommendations to your patients?

**RANDOMIZE ORDER**

- 33. **SHOW IF 99 AT Q3:** Travel health is outside your area of expertise
- 34. A lack of trusted medical sources for travel health information
- 35. Trusted sources are overly expensive
- 36. How fast recommendations on regional travel health issues can change
- 37. Not believing the patient will act on travel health advice
- 38. Not having time to look up specific travel health risks for each patient
- 39. Available information is too difficult to access during the patient encounter
- 40. Inadequate reimbursement
  - 01 A major barrier
  - 02 A moderate barrier
  - 03 A minor barrier
  - 04 Not a barrier
  - 99 Not sure

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

**RANDOMIZE ORDER**

41. I have enough access to information resources to help me address patient concerns about travel health issues.
42. The Canadian government should invest more in informing the public about travel health risks.
43. Travel health risks are overblown, they are really not that serious.
44. All international travellers should see a health care professional (doctor or nurse) before they travel
45. Travelling internationally poses health risks that are not present in Canada
46. The government should invest more in informing health care professionals about emerging travel health issues.

- 01 Strongly agree
- 02 Somewhat agree
- 03 Neither agree nor disagree
- 04 Somewhat disagree
- 05 Strongly disagree
- 99 Not sure

**Information needs**

**ASK ALL**

47. Where do you currently go for information to update your travel health risk knowledge, for providing patients with advice?

*Select all that apply*

- 01 Medical journals
- 02 Professional association newsletter
- 03 Canada.ca website
- 04 Statements from Committee to Advise on Tropical Medicine and Travel (CATMAT)
- 05 Conferences
- 06 Webinars
- 07 Social media
- 08 Peer reviewed medical websites
- 09 Medical textbooks/reference books
- 10 Other advisory committee statements
- 97 Other (*please specify*)
- 99 Not sure **SINGLE MENTION**

48. The following travel health resources are published on the Government of Canada website. Please indicate if you use each of the following, for your own knowledge and/or in explaining travel health risks to patients.

*Please respond for each resource*

Resource	I use this to explain travel health risks to patients (4)	I use this for my own knowledge and for staying up to date (3)	I am aware of this resource but have never used it [exclusive option] (2)	I am not aware of this resource [exclusive option] (1)
a. Canadian Immunization Guide (CIG)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Travel advice and advisories on travel.gc.ca	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Travel health notices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Canada Communicable Disease Report journal (CCDR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Travel Smart app	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Committee to Advise on Tropical Medicine and Travel (CATMAT) statements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ASK Q49 IFQ48F=3 OR 4

49. Which Committee to Advise on Tropical Medicine and Travel (CATMAT) topics/resources do you use most often?

*Select any that apply*

- 01 Arthropod bites
- 02 Cruise ship travel
- 03 COVID-19
- 04 Dengue fever
- 05 Ebola virus disease
- 06 Evidence-based process for developing guidelines and recommendations
- 07 Fever in the returning international traveller
- 08 Hepatitis during travel
- 09 High altitude illness
- 10 Immunocompromised travellers
- 11 Japanese encephalitis
- 12 Jet lag
- 13 Malaria
- 14 Meningococcal disease
- 15 Motion sickness
- 16 Older travellers
- 17 Pediatric travellers
- 18 Polio
- 19 Pregnancy and travel
- 20 Rabies
- 21 Risk of injury and travel
- 22 Strongyloidiasis
- 23 Travel medicine resources for Canadian practitioners
- 24 Traveller's diarrhea
- 25 Tuberculosis
- 26 Yellow fever
- 27 Zika virus
- 97 Other *(please specify)*
- 99 Not sure **SINGLE MENTION**

ASK Q50-53 FOR UP TO 2 RESOURCES USED IN Q48 (CODE 3 or 4) (RANDOM SELECTION with CATMAT as priority):

50. How often do you use [RESOURCE]:

*Select one only*

- 01 Daily
- 02 Weekly
- 03 Monthly
- 04 Less than a few times a year

51. How satisfied are you with [RESOURCE]:

*Select one only*

- 01 Very satisfied
- 02 Somewhat satisfied
- 03 Neither satisfied nor dissatisfied
- 04 Somewhat dissatisfied
- 05 Very dissatisfied
- 99 Not sure

52. What do you like about [RESOURCE]?

*OPEN END*

**OPTIONAL – ALLOW SKIP**

53. How could [RESOURCE] be improved (how could it be made more useful to you?)

*OPEN END*

**OPTIONAL – ALLOW SKIP**

**ASK ALL**

54. What other resources do you use for your own knowledge and/or in explaining travel health risks to patients?

*Select all that apply*

- 01 CDC Yellow Book
- 02 Travax online tool
- 03 World Health Organization publications/website
- 97 Other (*please specify*)
- 99 No other resources **SINGLE MENTION**

55. How interested are you in receiving additional professional education on international travel health?

- 01 Very interested
- 02 Somewhat interested
- 03 Not very interested
- 04 Not at all interested **SKIP TO Q57**
- 99 Not sure **SKIP TO Q57**

56. In which format would you be most likely to undertake professional education on international travel health?

*Please select all that apply*

- 01 Classroom courses
- 02 Conferences
- 03 Online courses
- 04 Reading advisory publications such as CATMAT or CDC recommendations
- 99 None of the above **SINGLE MENTION**

**ASK ALL**

57. How interested would you be in receiving breaking information on emerging international travel health topics?

- 01 Very interested
- 02 Somewhat interested
- 03 Not very interested
- 04 Not at all interested **SKIP TO Q59**
- 97 Already receiving this **SKIP TO Q59**
- 99 Not sure **SKIP TO Q59**

58. How do you prefer to get the very latest information on emerging international travel health topics?

*Please select all that apply*

- 01 E-mail bulletins
- 02 Social media postings (e.g. Twitter, Facebook)
- 03 Medical journal articles
- 97 Other *(please specify)*
- 99 Not sure **SINGLE MENTION**

## ASK ALL

How much would you trust the following to have accurate information about international travel health information:

## RANDOMIZE ORDER

59. Medical organizations (e.g., Canadian Paediatric Society, Canadian Medical Association, American Medical Association or other)
60. Committee to Advise on Tropical Medicine and Travel (CATMAT)
61. Medical websites (Mayo Clinic, etc.)
62. Government of Canada websites (Canada.ca, Travel.gc.ca)
63. International agencies (e.g., WHO) or public health agencies of other countries (e.g., CDC)
64. Scientific peer-reviewed journals
65. My professional colleagues
  - 01 Trust completely
  - 02 Trust somewhat
  - 03 Neither trust nor distrust
  - 04 Distrust somewhat
  - 05 Distrust completely
  - 99 Not sure
66. What travel health topics, if any, would you be interested in learning more about?  
*Please select all that apply*
  - 01 Communicable disease outbreaks (e.g., COVID-19, measles)
  - 02 Recommended/required vaccinations and medications
  - 03 Food and water precautions travellers should take to avoid illnesses
  - 04 Vector-borne illnesses (Zika virus, West Nile, etc.)
  - 05 Other general precautions to protect the health of travelling Canadians
  - 97 Other (*please specify*)
  - 98 Not interested in learning more about travel health topics **SINGLE MENTION**
  - 99 Not sure **SINGLE MENTION**



## Demographics

The following are a few questions about you, for statistical purposes only. Please be assured all of your answers will remain completely anonymous.

67. What type of setting best describes your primary place of practice?

*Select one only*

- 01 Solo practice
- 02 Family medicine clinic
- 03 Hospital setting
- 04 Walk-in clinic or Urgent Care
- 05 Multi-disciplinary clinic
- 06 Specialized travel health centre/clinic
- 07 Community health centre
- 08 Long term care residence
- 09 Public Health clinic/setting
- 10 Pharmacy
- 88 Other (Please specify)

68. Which of the following best describes the area where your primary place of practice is located?

*Select one only*

- 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 (under 1000 individuals)

69. In what year were you born?

**DROP DOWN LIST – 18 YEARS TO 100 YEARS**

70. Which language(s) are used to communicate with patients in your practice?

*Select all that apply*

- 01 French
- 02 English
- 03 Other languages

71. How do you identify yourself?

*Select one only*

- 01-Female
- 02-Male
- 03-Gender fluid or diverse, or non-binary
- 04-Other cultural gender identity (e.g. Indigenous two-spirit)
- 99-Prefer not to answer

**SHOW ALL:** This completes the survey. The gift card is being administered by MDBriefcase; they will be contacting you. On behalf of the Public Health Agency of Canada, thank you for your valuable input. In the coming months, the results of this survey will be available on the Library and Archives Canada website.

**LANDING END PAGE LINK TO**

**ENGLISH:** <https://travel.gc.ca/travelling/health-safety>

**FRENCH:** <https://voyage.gc.ca/voyager/sante-securite>