THE STRATEGIC COUNSEL

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Final Integrated Report

Understanding Canadians' Awareness, Knowledge, Attitudes and Behaviours Related to Antimicrobial Use and Antimicrobial Resistance

Prepared for
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Canada

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Understanding Canadians' Awareness, Knowledge, Attitudes and Behaviours related to Antimicrobial Use and Antimicrobial Resistance

Final Report

Prepared for: The Public Health Agency of Canada
Supplier Name: The Strategic Counsel

This public opinion research report presents the results of a three-phased study including two rounds of focus groups which were conducted prior to and following completion of a telephone survey conducted by The Strategic Counsel on behalf of Health Canada and the Public Health Agency of Canada.

Cette publication est aussi disponible en français sous le titre: Sensibilisation, connaissances, attitudes et comportements des Canadiennes et des Canadiens liés à l'utilisation d'antimicrobiens et à la résistance aux antimicrobiens

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Executive Summary

A. Background

Antimicrobial resistance (AMR) is a growing public health threat in Canada and around the world. Left unchecked, AMR could cause a return to a pre-antibiotic era in which common infections could once again become incurable, with grave consequences to the health of Canadians.

The Public Health Agency of Canada (PHAC) is responsible for coordinating national responses to public health threats and has identified AMR as such a threat. The Agency provides national leadership on the public health aspects of AMR and antimicrobial use (AMU) and as such has developed a Communications Plan for 2018-2020 that aims to increase awareness of AMR among Canadians and to promote the sound use of antibiotics.

Relevant public opinion research was last conducted well over 10 years ago, in 2007-2008, focusing on Canadians' knowledge, attitudes and behaviour related to pathogens and infection control which included the topic of antibiotic utilization. Other topics included nosocomial infection, the anticipated impact of pandemic influenza and the public's perceptions of their role in infection control. In addition to the work in 2007-08, a more recent study was conducted in 2014 to determine Canadians' pre-campaign AMR-related knowledge, awareness, and behaviours. Both of these surveys provided valuable information regarding the public's knowledge. Given the lack of more recent data on public opinion regarding this topic, it was determined that a study should be undertaken to gain a better understanding of the broader culture and context surrounding AMR and to obtain a comprehensive baseline assessment of the Canadian public's knowledge, attitudes and behaviours as they relate to AMR.

The data gathered from this research will be used to inform the implementation of the AMR Action Plan and follow-up activities. It will also inform the Government of Canada's policy positions and program activities related to AMR. The research findings will help strengthen the Government of Canada's understanding of the level of awareness and knowledge of antibiotic use and antimicrobial resistance among the Canadian public. In turn, this will guide the development of general awareness products and guidance/stewardship products for health professionals with the goal of making Canadians more informed health care consumers.

In particular, this study will enhance the capacity of the Government of Canada, other levels of government, non-governmental organizations and public health professionals to target interventions that will improve awareness, knowledge and behaviour related to AMR and to monitor the impact of collective investments in this area.

B. Study Objectives

This research program addressed a number of broad objectives. The study was designed to obtain information related to:

- Levels of awareness and knowledge of antibiotics, antibiotic resistance and related terminology;
- Perceptions of antibiotics, including perceived benefits and risks;
- Antibiotic use and behaviours as well as the factors underlying behaviours related to antimicrobial use;
- General attitudes and knowledge related to preventing infections;
- Views on the availability of public information on this issue;
- What Canadians feel is missing in terms of knowledge surrounding antimicrobial resistance and the type of information they feel would be useful; and
- How and where Canadians obtain information regarding antibiotic use, antibiotic resistance and antimicrobial resistance.

C. Methodology

To address the above-noted program objectives, the study was carried out across three phases:

- Phase 1 – Pre-Survey Focus Groups: Six in-person focus groups were undertaken in July, 2019 to gauge general awareness and familiarity with antibiotics and the topic of antibiotic resistance. This limited series of groups was intended to obtain some preliminary insight into attitudes and behaviours with respect to antibiotics and their use as input into the framing of concepts to be explored in a subsequent survey of Canadians and the language used to craft survey questions.
- Phase 2 – Telephone Survey: This research study was paused following Phase 1, with the onset of the pandemic in 2020 and did not resume until Fall/Winter 2021. A nationwide telephone survey, about 20 minutes in length, was administered to a random, representative sample of 1,500 Canadians, aged 18 and older, between December 10th, 2021 and January 7th, 2022. The survey further explored Canadians' attitudes towards antibiotics, as well as general usage and behaviours, familiarity with antibiotic resistance, levels of concern about overuse of antibiotics and key information sources/trusted spokespeople on the topic.
- Phase 3 – Post-Survey Focus Groups: Following completion of the survey and analysis of the results, a second round of 12 focus groups was conducted online between February 23rd and March 1st, 2021. In these groups, insights from the survey were further probed with a particular focus on the perceived causes of antibiotic resistance, potential responses and information needs which would be helpful in bringing greater public attention to this issue.

More detail on the methodology, including the specific goals and approach in each Phase, can be found in Section II – Objectives and Methodology.

D. Key Findings

The vast majority of Canadians have at least some familiarity with antibiotics – 91% report having taken them at some point in their lives and 80% of parents with children under age 18 report that their children have taken them. Just over a third of the adult population (37%) have used antibiotics within the last year, with just under one in five Canadians (17%) who report having taken antibiotics twice or more in the last 12 months.

There is some degree of confusion about how antibiotics work (e.g., biological properties and characteristics), and the appropriate use and application of antibiotics. Many are clear on the fact that antibiotics are used to treat bacterial infections – 81% of survey respondents say that antibiotics can kill bacteria. In focus groups, however, some participants were less sure, specifically in terms of the distinction between bacterial and viral infections. As such, a number of participants in each of the focus groups felt that antibiotics could be an appropriate treatment for both types of issues. This confusion was also apparent in survey responses:

- Just under half of respondents (46%) agreed that antibiotics are effective in treating fungal infections.
- Smaller, but still significant proportions believe that antibiotics can kill viruses (33% said this is true) and are effective against colds and the flu (28%).

Nevertheless, antibiotics are seen as a powerful class of drugs, with lifesaving impact in some cases. In focus groups, participants emphasized several key benefits, including the rapidity with which antibiotics resolve the medical issue being treated, alleviation of symptoms, especially pain and discomfort, and being able to quickly resume one's normal daily routine. Almost half (46%) of survey respondents said they would prefer not to take antibiotics in order to avoid any side effects. In further conversations with focus group participants on this issue, several also stated a preference for preventive approaches to reduce the likelihood of developing a medical issue that would require antibiotics, and/or making lifestyle changes, particularly through diet, to boost one's natural immune response.

At the same time, there are some perceived downsides or risks. Participants often mentioned side effects in addition to overprescribing and over-use of antibiotics (most respondents to the survey identified over-use of antibiotics as a major (43%) or minor (36%) problem in Canada). Several participants mentioned the declining effectiveness of antibiotics as a result. Focus group participants also commented that incorrect use of antibiotics contributed to this issue as well, specifically noting that the full course of antibiotics should be taken.

On balance, however, many felt the benefits of antibiotics clearly outweighed any risks. Parents voiced mixed views, with some seeing antibiotics as a low risk treatment option for children, given smaller dosages which are based on size and weight, while others expressed greater concern that over-prescribing among young children could be a more serious issue.

Focus groups offered an opportunity to have a more in-depth discussion regarding participants' perceptions of physicians' prescribing behaviour, their own expectations when it comes to treatment with antibiotics, as well as their usage behaviours. Participants described varying experiences in terms of physicians who prescribe antibiotics more or less readily, and prior to considering other treatment options. Most trust their doctors to recommend the appropriate course of treatment, whether that involves a prescription for antibiotics or a non-medical approach (e.g., rest, fluids, and waiting for symptoms to go away on their own). While some expressed a desire for their physician to suggest alternate, more 'natural' methods of treatment, before resorting to antibiotics, others expected an antibiotic to be prescribed based on their or their child's symptoms. Among the latter group there was a tendency to indicate they would likely seek a second opinion if their physician was reluctant to prescribe an antibiotic. Of note, very few participants recalled being given clear information from their physicians on the correct use and potential side-effects from antibiotics which they were prescribed. In participants' view, this was more commonly the practice of pharmacists.

Although some focus group participants did acknowledge they would consider stopping antibiotic use if their condition improved (15% in the survey said that it is safe to stop taking an antibiotic once you start to feel better), and that they had done so in the past, most felt it was important to take the full course. Survey results suggest that this attitude is more prevalent among younger, less educated, men. This was also borne out in the focus groups where male participants were more likely to admit not having finished the full course of an antibiotic, acknowledging that this had been a more common, albeit not regular, practice in their youth.

Sharing of antibiotics was also not a frequent practice based on participants' comments in the focus groups, although it occurred from time to time mainly for reasons having to do with convenience (e.g., avoiding the need to schedule a medical appointment). Similarly, retention of any unused antibiotics was not necessarily common (as most said they finished the full course), but was acknowledged as having been done on an occasional basis by some. Again, keeping any unused antibiotics was viewed as a way to quickly treat a reoccurrence of an infection, while also avoiding having to pay the cost of another prescription.

Many Canadians are generally familiar with antibiotic resistance and concerned about this issue, although focus groups suggest that they may not necessarily see the issue as particularly urgent or specifically relevant to them personally. With respect to terminology, Canadians are most familiar with 'antibiotic resistance' and least familiar with the term 'antimicrobial resistance' (68% have heard of/know what the former term means, while 25% say the same regarding the latter term). And, although over half of survey respondents (57%) indicated they are 'very worried' (16%) or 'somewhat worried' (41%) about this issue, findings from the survey as well as comments shared in focus groups suggest that it is not necessarily seen as a 'top ten' global public health threat. Relative to the pandemic, the prevalence of chronic health conditions (e.g., diabetes, cancer and heart disease) and climate change, antibiotic resistance is not viewed as a particularly urgent issue. In focus groups, participants commented that they likely would have heard more about it if it were urgent. At the same time, they acknowledged that COVID-19 was likely crowding out other important global health issues. From the survey, just one in five (20%) recall seeing anything

about this topic from the Government of Canada over the last five years, and fewer (12%) remember getting any information on unnecessary antibiotic use.

While most believe that this is an issue that could affect everyone (56%), in focus groups some felt that those who were immunocompromised might be more affected. There was also a sense that marginalized groups as well as those in the developing world may be more impacted by the issue, given systemic health and income inequities.

There is a general consensus the issue is, to a great extent, a factor of patient requests for antibiotics when they are not needed (53%), overprescribing by doctors (50%) and walk-in clinics (46%), and misuse (46%). Other factors are also seen as contributing to antibiotic resistance, including people obtaining them in ways other than through a doctor (43%) and overuse in livestock and fish farming (42%). Fewer felt that waste products from antibiotics entering the environment were a significant issue (30%).

In line with these survey responses, most focus group participants felt that patient and physician education were both key to addressing the issue of antibiotic resistance. Specifically, they were of the view that patients need to be given more information on why an antibiotic isn't being prescribed, that antibiotics should be used more judiciously and that physicians' prescribing behaviours should be monitored. There was also some interest in instituting a practice of delayed prescriptions. That said, some indicated it could prove challenging to shift patient expectations and habits, particularly the desire for instant relief from symptoms. By contrast, reducing travel was not seen as having much impact on the issue of antibiotic resistance. Although many survey respondents (70%) were worried that travel could lead to the spread of antibiotic resistance, most participants in the focus groups did not see a connection between the two.

E. Conclusions and Recommendations

There was a general consensus among participants in the focus groups that more public education is required on this topic. Many felt it was important to raise awareness of the issue and to provide Canadians with key facts and information which would enhance their understanding, prompt interest and ultimately action in the form of attitudinal and behaviour changes. Increased receptivity to the issue is, in some respects, linked to the rapid and extensive spread of COVID-19 worldwide over the last two years. Given this experience, participants appear to have developed an appreciation for, if not an in-depth understanding of, the way in which these types of issues can significantly impact humankind on a global basis if left unchecked.

Participants expressed a desire for data and information that would:

- Better explain the issue of antibiotic resistance, what it is, how it spreads, why it is important to address the issue, and what the implications are for Canadians if it is addressed;
- Encourage patients to ask questions of their health care provider if they are being prescribed an antibiotic, and specifically in regards to alternate treatment options; and
- Help the public to better manage symptoms and illnesses on their own, before resorting to antibiotics; and

- Demonstrate that antibiotics may not always be required or the best treatment; and
- Enhance Canadians' understanding of proper use in instances where antibiotics are prescribed, by encouraging physicians and pharmacists to reiterate the importance of taking them as prescribed (e.g., the full course), refraining from sharing antibiotics or saving them for later use, and discarding any leftover medicines safely.

Note to Reader

Unless otherwise noted, results shown in this report are expressed as percentages and may not add up to 100% due to rounding and/or multiple responses to a given question. Findings from the two qualitative phases of research reflect the views of a limited number of participants. While valuable in terms of providing further insight and understanding of the findings from the quantitative phase of research, they should not be generalized or extrapolated to the broader Canadian population of adults, aged 18 and older.

MORE INFORMATION

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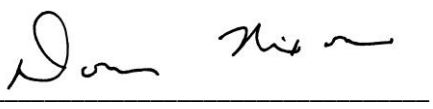
To obtain more information on this study, please e-mail HC.cpab.por-rop.dgcap.SC@canada.ca

Statement of Political Neutrality

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

Signed: 

II. Objectives and Methodology

Objectives and Methodology

This research study was conducted over three phases. Phase 1 was completed in 2019 prior to the start of the pandemic. The research program was subsequently put on hold throughout 2020 and most of 2021. Phases 2 and 3 resumed in late 2021 and were completed in the early part of 2022. The objectives associated with each phase and the methodology employed are detailed below.

A. Objectives

This research study will be conducted in three phases: Phase 1: Pre-Survey Focus Groups to Assist in Survey Development; Phase 2: Telephone Survey of Canadian Adults; and Phase 3: Post-Survey In-Depth Focus Groups. All phases of the research were conducted among Canadians aged 18 years or older.

The main purpose of Phase 1 was to assist in survey development and refinement, specifically to:

- Test the salience of key themes and topics for the survey
- Evaluate concepts, language and terminology to ensure questions will be posed in a way which is clear, easy to understand and interpreted appropriately by respondents
- Gauge what is a reasonable number of questions and question areas to probe within a 20-minute period
- Identify any questions that respondents have on the topic and/or any problems they may have completing the survey by telephone

Phase 2 was designed with a view to better understanding Canadians' views in a number of areas:

- Attitudes and behaviours around antibiotics and antibiotic use
- Level of awareness and knowledge of antibiotic use and antibiotic resistance
- Level of awareness, knowledge and understanding of antimicrobial resistance
- General attitudes and knowledge related to preventing infections
- General attitudes and knowledge related to preventing and treating drug resistant infections
- Perceived risk of contracting and spreading infections in general as well as antimicrobial resistant infections
- Views on the availability of public information on the issue

The objectives of Phase 3 were finalized once the survey had been completed. They focused on exploring the findings from the survey, including the following:

- Why Canadians hold certain attitudes about antimicrobial resistance and antimicrobial use
- The factors underlying behaviours related to antimicrobial use and information seeking
- What information Canadians feel is helpful to enhancing their understanding of antibiotic use, antibiotic resistance and antimicrobial resistance

B. Methodology

The methodology for each of the three phases is outlined below. The research instruments in English and French, including recruiting scripts, moderators' guides, and the survey, can be found in the Appendix.

1. Phase 1 – Pre-survey Focus Groups

Phase 1 of this study involved a series of focus groups that were used to gauge the public's awareness and understanding of antimicrobial use and antimicrobial resistance. The moderator's guide was specifically structured to:

- Assess awareness, knowledge and understanding of antibiotics and the issue of antimicrobial resistance, including familiarity with the terminology and various facets of the issue; and
- Provide insights into current behaviours related to antibiotic use and views with respect to perceived benefits and risks.

The questions posed to focus group participants were framed with a view to applying the Theory of Planned Behaviour and the Health Belief Model[1].

A total of six focus groups were held in-person in two locations only on July 16th- 18th, 2019, as shown in Table 1 below (4 groups in English, 2 groups in French). Groups were segmented by gender and by age to better understand any differences in the views and experiences of women and men, as well as among younger and older people. These are noted, where relevant, in the analysis. Beyond this, recruiting specifications also sought to ensure that each group reflected a cross-section by employment status, household income, and ethnicity. Participants also included some with children, including younger children, and this did appear to affect their interest in, level of concern for, and views on the topic.

The Battleford area of Saskatchewan, which includes North Battleford and the town of Battleford, is home to several Indigenous groups, including the Algonquin-speaking Cree and Blackfeet, as well as the Siouan Assiniboine First Nation band. In this specific location, attempts were made to ensure individuals

[1] Comparing the Health Belief Model and the Theory of Planned Behaviour in health screening. (https://psycnet.apa.org/record/1994-98677-001).

representing First Nation and Métis were also invited to participate in the groups. Of note, First Nation and Métis comprise about 28 percent of the population in North Battleford.[2]

Details of Focus Groups

GROUP	LOCATION*	DATE*	LANGUAGE	COMPOSITION OF GROUP
1	**Ottawa, Ontario**	Tuesday, July 16	English	Women, Age 18-44
2				Men Age 45 and older
3		Wednesday, July 17	French	Women Age 45 and older
4				Men Age 18-44
5	**North Battleford, Saskatchewan**	Thursday, July 18	English	Women Age 18-44
6				Men Age 45 and older

In each group, 10 participants were recruited with the aim of having at least eight attend. In total, 53 people participated in the focus groups, including 25 women and 28 men (18 participants in Ottawa (English) – 10 men, 8 women; 18 participants in Ottawa (French) – 9 men, 9 women; 17 participants in North Battleford – 9 men, 8 women).

All groups were 90 minutes in duration.

2. Phase 2 – Nation-wide Telephone Survey

A nation-wide survey of Canadians, aged 18 and older was conducted between December 10th, 2021 and January 7th, 2022. In total, n=1,515 respondents completed a 19-minute survey. Minimal weighting was applied to the final data set to achieve a representative sample reflective of the population of Canada by region, resulting in weighted final sample of n=1,500. The results, at a national level, have an associated margin of error of +/- 2.5%, at a 95% confidence level. Results for sub-groups of the population will have a higher associated margin of error.

The survey was conducted by telephone, using a random probability-based sampling approach which was generally proportionate across regions (provinces and territories) of Canada. Details regarding the sample design and approach can be found in Section VI. A profile of respondents including the breakdown of respondents by region, community size, gender, age, and other demographic characteristics can be found in Section IV-H of this report.

[2] 2016 Census data, Statistics Canada.

3. Phase 3 – Post-survey Focus Groups

Phase 3 of the study was undertaken following completion of the survey. A total of twelve focus groups were undertaken online, using the Zoom video-conferencing platform. The objectives for this phase overlapped to some extent with those of Phase 1. However, a larger portion of the discussion in each group was devoted to exploring participants' views on responding to the issue, particularly what actions could be taken to address antibiotic resistance and what information would be helpful to raise public awareness.

The moderator's guide was specifically structured to:

- Briefly ascertain general awareness, knowledge and understanding of antibiotics and the issue of antimicrobial resistance, including familiarity with some of the terminology and various facets of the issue;
- Provide insights into current behaviours related to antibiotic use and the perceived benefits and risks associated with antibiotics;
- Explore actions that could be taken to address the issue of antimicrobial resistance; and
- Evaluate participants' information needs and determine what facts or messaging would be effective in enhancing awareness and better informing the public about this issue.

All of the groups were conducted between February 23rd and March 1st, 2022. The groups were recruited specifically to target various types of communities across Canada, including: major centres such as the Greater Toronto Area (GTA), Montreal, and the Vancouver CMA, as well as mid-size and smaller centres, including more rural and northern communities in some provinces. Groups were segmented principally on the basis of age. Beyond this, recruiting specifications also sought to ensure that each group reflected a cross-section by employment status, household income, and ethnicity. Some groups were recruited with a specific focus on participants with younger children as well as those in the Indigenous and South Asian communities to ascertain whether there were any evident differences in perspectives across and between these groups. As relevant, any differences based on these demographic characteristics as noted in the analysis that follows. The table below shows the date, time and location of each group, in terms of where participants were located. The last column indicates the composition of each group.

Details of Focus Groups

GROUP	DATE	TIME (LOCAL)	LOCATION	LANGUAGE	COMPOSITION
1	Wed., February 23rd	5:00-6:30 (CST)	Prairies	EN	Ages 55+ Focus – Indigenous peoples
2	Wed., February 23rd	5:00-6:30 (CST)	Mid-size Centres Prairies	EN	Ages 35-54 Focus – Families with young children
3	Wed., February 23rd	7:00-8:30 (CST)	Prairies – Skew Small/Rural/Northern Centres	EN	Ages 18-34 Focus – Indigenous people and families with young children
4	Thurs., February 24th	5:00-6:30 (PST)	Vancouver CMA	EN	Ages 55+ Focus – Asian heritage
5	Thurs., February 24th	5:00-6:30 (PST)	Vancouver CMA	EN	Ages 35-54
6	Thurs., February 24th	7:00-8:30 (PST)	Vancouver CMA	EN	Ages 18-34 Focus – Asian heritage and families with younger children
7	Mon., February 28th	5:00-6:30 (EST)	GTA – Ontario	EN	Ages 18-34 Focus – Asian heritage
8	Mon., February 28th	5:00-6:30 (EST)	Montréal et ville de Québec	FR	Ages 18-34
9	Mon., February 28th	8:00-9:30 (EST)	Mid-size Centres Ontario	EN	Ages 55+
10	Tues., March 1st	5:30-7:00 (EST)	Montréal et ville de Québec	FR	Ages 35-54
11	Tues., March 1st	6:30-8:00 (EST)	Small/Rural/Northern Centres Ontario	EN	Ages 35-54 Focus – Indigenous peoples and families with young children
12	Tues., March 1st	7:30-9:00 (EST)	Montréal et ville de Québec	FR	Ages 55+

In each group, 10 participants were recruited with the aim of having at least seven or eight attend. In total, 101 people participated in the focus groups, including 54 women and 47 men. A total of 76 participants attended the groups conducted in English (42 women and 34 men), while 25 attended groups conducted in French (12 women and 13 men).

All groups were 90 minutes in duration.

4. Potential for Bias in the Research Findings

All quantitative and qualitative research has the potential for response bias. In public opinion research, respondents are asked to self-report in terms of their knowledge, attitudes and behaviours. As such there

is a possibility of response bias occurring. This refers to the tendency of survey respondents and focus group participants to provide inaccurate, and possibly false, answers to self-report questions asked in surveys or structured interviews/focus groups. Depending on the topic, respondents or participants may respond to questions based on what he or she thinks is the 'right' answer or what is socially acceptable, rather than what he or she really feels about the issue/topic. Several steps were taken to limit response bias, including ensuring that all questions were worded in a neutral and non-judgmental fashion, that answer options or prompts were not leading, and that respondent anonymity and confidentiality were maintained throughout the research process. Additionally, the survey undertaken in Phase 2 was pre-tested, as is standard practice for Government of Canada public opinion research, to make sure questions were clearly written and understood by respondents. In the two qualitative phases of the study (Phases 1 and 3), responses were examined within and across groups. Consistency in the findings within and between the groups offers some reassurance that results are not anomalous and that any response bias has been minimized.

III. Phase 1 – Detailed Findings from Pre-Survey Focus Groups

Phase 1 – Detailed Findings from Pre-Survey Focus Groups

A. Information Sources for Medications, including Antibiotics

For most participants who are seeking health-related information or information about medicines, the 'go to' source is often Google via a key word search. Many tend to rely heavily on the Internet as a source of information on a range of health topics. While most participants say they conduct Google searches, some also access specific 'trusted' websites (i.e., WebMD, World Health Organization, CHEO or the Mayo Clinic). These sites are considered to offer information and advice from 'health experts' and, as such, retain high credibility with participants. Participants were nevertheless somewhat wary of health or medical information found online, specifically from 'mommy blogs' or other 'lay' people who may be providing advice based on experience or knowledge gained from suspect sources. They acknowledge that the Internet, while helpful, has also contributed to extensive confusion and misinformation regarding health information. Similarly, some participants indicated they would use Tele-Health services to access trained staff who can respond to their questions or concerns. Family doctors and pharmacists are also highly trusted sources of information and advice, with some feeling that the latter are more up-to-date than the former.

When it comes to information about medications, and antibiotics in particular, participants indicated they would most likely rely on the information provided by their physician or the pharmacist. Specifically, they are most interested in side effects and possible adverse reactions, although many acknowledged that they simply accept the prescription they are given without requesting any additional information. Participants' responses were mixed when asked whether they read the written information provided with prescription medications. Some do, others do not. For those who don't, they tend to find the information overly technical and not written in a way that is easy to absorb and understand. Others find it difficult to digest and prefer simply to ask the pharmacist or their physician what they should be aware of when taking the medication. By contrast, on other types of medical issues, they would be more inclined to undertake research online themselves.

Friends and family are relied upon to some extent, especially those who may have some medical or health expertise or who have experienced a similar issue. While it is important to understand that friends and family are not viewed in the same light as medical professionals, they do have some sway particularly in either normalizing ideas or actions or, alternately, disseminating health-related information that may have little or no basis in fact or evidence.

B. General Awareness and Understanding of Antibiotics

1. Top-of-Mind Associations

Participants were asked to jot down what first comes to mind when they hear the term antibiotics. Associations were varied, both positive and negative, but generally fell into several categories related to general perceptions, products and types of antibiotics, use and experiences, efficacy/outcomes/benefits, side-effects, and broader issues associated with use, as outlined below.

General Perceptions:

- Generally positive perceptions – *"I'm alive and my kids are alive because of them." "Miracle drugs."*
- Instant cure
- Common treatment
- Generally negative perceptions or preference not to take antibiotics/negative effects
- Covers a broad spectrum of ailments

Products and Types of Antibiotics:

- Antibiotic soaps – *"Everyone is Purelling* (reference to Purell hand sanitizer) *their hands constantly."* Associated question/concern that excessive use of these hand sanitizers may be counterproductive to building up antibodies and resistance to microbial infections.
- Penicillin and amoxicillin were most commonly mentioned
- Drugs ending in 'cillin' were generally understood to fall within the category of drugs known as antibiotics

Use and Experiences:

- Fighting infections/fighting off bacteria
- Improper use
- Need to take the full course of antibiotics/the full dosage
- More education needed on how to use antibiotics properly

Efficacy/Outcomes/Benefits:

- Fast-acting – *"I was prescribed antibiotics and was ok in a few days."*
- Instant relief
- *"Your body gets used to it and then it can't fight its own things."*

Side-Effects:

- Concerns about side-effects – *"It gets you a bit scared … when the list of side-effects is long."*
- Allergies to antibiotics

Broader Issues:

- Over-use in general – *"They are prescribed for too many different things."*
- Over-use/easy access in countries such as Mexico
- Antibiotics losing their effectiveness – *"We have lost the fight [in terms of antibiotic effectiveness."*
- Superbugs
- Physicians prescribing antibiotics without undertaking thorough diagnosis and/or having to try multiple rounds before finding an antibiotic that is effective – *"I think you have this … we're going to try this out. They don't know half the time."*

2. Knowledge of Antibiotics

In each group, the majority of participants generally felt they knew at least something, if not a lot, about antibiotics and how they work. A small number in some groups, limited to one or two participants, did state they knew quite a bit about antibiotics, either through academic training (typically in a medical or health-related field) or through use and experience.

At the same time, there were typically two or three participants in each group who admitted to knowing very little at all about this category of drugs. Of note, those who knew little were often quite easily influenced by others in the group who exhibited greater authority or knowledge of the topic, even when the facts and information provided by those 'in the know' were not necessarily correct.

When asked to explain further, few participants had an extensive or deep understanding although they generally understood that antibiotics fight bacterial, not viral, infections. Otherwise, the depth of knowledge was restricted to simply understanding that a prescription was required, the full dosage should be taken and that it is a *"quick way to solve your problem."* One participant mentioned that antibiotics *"boost the immune system … boosting white blood cells to attack the bad things in your body."*

Most were aware that antibiotics come in a variety of forms: tablets are most common, in addition to topical ointments and syrups (mostly prescribed for children).

Participants were of the view that antibiotics are generally prescribed for infections, specifically bacterial infections that can be spread if they are not addressed quickly – "*the odds of viral infections spreading are lower – you have to have more contact and more interactions."* Some confusion between what is a virus and what is a bacterial infection was evident in the discussions. In contrast to viruses (i.e., the flu or a cough), the more common infections that participants felt could be treated by antibiotics included staph infections, strep throat, mononucleosis (in fact a viral infection not treatable by antibiotics), bladder infections, and bronchitis. Others also mentioned that antibiotics may be prescribed to treat STDs, abscesses, allergies, blood poisoning and insect bites.

Most participants believe that antibiotics are effective against these common types of bacterial infections which they feel are more common in a busy, interconnected world. As one participant commented, *"they are very effective because of population growth."* By contrast, other participants commented that, while the superbug issue is somewhat alarming, it's 'not the norm' and that vaccines are an effective means of combatting these concerns. However, instances or occasions when antibiotics were not seen to be effective were most often associated with inappropriate use (i.e., the patient not following instructions regarding the dosage, when the antibiotics were to be taken, or the course of treatment).

At the same time, in almost every group, at least one or two participants related stories about the challenges they or a family member had encountered in terms of the efficacy of antibiotics in treating an infection. In one instance, a young woman spoke about being prescribed several different types of antibiotics before finding one that was effective in her case. She also spoke about this leading to severe side effects that were worse than the original issue for which she sought treatment. Another talked about being given the *"same prescription for the same ailment, even if it didn't work the first time."* In a similar vein, several participants appeared to suggest that their physicians tended to administer antibiotics as a 'band-aid' solution, without undertaking due diligence on the patient's history and specific medical issues.

Although most participants are comfortable taking antibiotics and see them as commonly and widely used medications, much like Tylenol or Advil, they do not view or treat antibiotics in the same way as they would these other medications. They felt the comparison was 'like apples to oranges' in that the two types of medications are intended to address very different kinds of ailments. More importantly, they felt that while both types of medications are accompanied by clear instructions in terms of dosage, frequency and side-effects, there may be somewhat more latitude in terms of how closely one is required to adhere to the instructions for use for over-the-counter (OTC) drugs as compared to antibiotics. They believe that medications like Advil and Tylenol are likely to cause less harm and side effects to the patient. Additionally, participants view OTC medications such as Tylenol or Advil as being useful in addressing more general issues while a prescription for an antibiotic was *"serving a more specific purpose."* The fact that one is prescribed while the other can be purchased over-the-counter was a clear indication that they should be treated differently.

3. Perceived Benefits and Risks of Antibiotics

Participants associate a range of benefits with antibiotics, not the least of which is the quick relief obtained almost immediately once the treatment has started, allowing the patient to get back to their day-to-day routine. Benefits or positive associations mentioned by participants included the following:

- Peace of mind
- Relief/prevents further suffering
- Alleviates negative symptoms
- Allows patient to feel better quickly/fast recovery
- Ability to return to work quickly/get on with your life
- Increased productivity

- Convenience
- Readily available/accessible
- Low cost (compared to other types of medications)
- Stops the spread of infection
- Precludes hospital stay
- Typically side effects are minor
- Can be given to children (in flavours that are more palatable)

A number of participants commented specifically on the psychological impact of being able to take a medication that works quickly in addressing symptoms and medical issues that might otherwise adversely affect the patient's overall comfort and ability to carry on with daily demands. In this sense, antibiotics were viewed as having positive effects on one's mental state (i.e., knowing that one will improve quickly – *"I know I'm taking something that's going to make me feel better … I don't have to worry about it anymore").*

The negative associations with antibiotics or perceived risks often pertained to issues with respect to overprescribing, side-effects, improper use, and general loss of efficacy among this category of drugs (i.e., resistance). It is notable that some participants referred to overprescribing rather than over-use which tends to position the issue of antibiotic or antimicrobial resistance as one that has been created by physicians and is less a factor of patient demand or expectations. In general, women appeared to be more concerned about over-prescribing and over-use of antibiotics and alert to the risks which may ultimately mean that *"there is going to be a day when I really need them, and they won't work."* This is not to say that some men were not also aware of and concerned about this issue, but men were typically more inclined to feel that over-prescription was not a significant issue.

For some participants, the side effects associated with antibiotic use were felt to be particularly harmful. And, when linked with over-use, there was a feeling that antibiotics could ultimately cause irreparable damage to organs.

On balance, however, most participants would agree that the benefits of antibiotics clearly outweigh the risks.

C. Use of and Experience with Antibiotics

Virtually all participants in every group had some direct experience with antibiotics, having been prescribed or used an antibiotic within the last five years. As such, most were able to elaborate on their experience including describing the circumstances, their diagnosis, what they were given, and the extent to which they adhered to the instructions regarding the course of treatment.

Conditions for which participants were being treated with antibiotics ranged from strep throat to bladder or urinary tract infections and pneumonia, among others. Most were grateful, and relieved, to be

prescribed an antibiotic as it almost immediately addressed their symptoms and, in some cases, severe discomfort or pain.

1. Perceptions of Prescribing Practices

While, in some cases, participants suggested that they attempted to manage the condition on their own or find alternative treatments, more commonly they immediately presented to their physician, a walk-in-clinic or emergency room with the expectation that they would be given an antibiotic. Participants' comments suggest that they follow the physician's lead when it comes to recommending treatments involving prescription medications, including antibiotics. If the physician suggests an alternate approach, either in place of or before prescribing antibiotics, they are likely to take that advice. At the same time, they also have an expectation that health professionals should be helping relieve their discomfort or pain – *"you can see that I am not well. Why aren't you helping me?"* In this respect patients may put some, either overt or more tacit, pressure on physicians.

Three specific points are relevant here and were raised by participants in the context of this discussion. First, some participants say that getting in to see a physician in a timely fashion can be challenging. As a result, they are loathe to leave the doctor's office without a prescription. While they may concur with a physician's advice that an alternate approach may be preferable and equally effective, they worry that if the symptoms are not quickly alleviated they will have difficulty getting a follow-up appointment in order to get the prescription – *"You feel that you have an infection, but they want to try other things first … you have to ride it out … I wish they could give me a pill."* Sometimes, patients themselves say they know when they have an infection which should be treated with an antibiotic, mainly because they've had a similar issue previously. In these instances, they are less interested in trying alternative treatments first.

Secondly, a number of participants feel that over-prescribing of antibiotics is a more common practice in walk-in clinics. In their view, the issue is related to billing and volume of patients in these types of practices. As a result, they feel that walk-in clinics tend to prescribe antibiotics at a higher rate compared to physicians who work in other practice environments and specifically those who have developed a longstanding relationship with or know the history of their patients.

Third, in the course of this discussion, participants also mentioned that some doctors tend to randomly prescribe antibiotics before undertaking thorough tests to determine exactly what the issue is and specifically what type of antibiotic should be administered. Some participants were left with concerns that physicians may tend to default too quickly to prescribing an antibiotic before having sufficient information and a clear diagnosis – *"I don't know what it is, but here's a course of antibiotics."*

2. Experience Using, Storing and Disposing of Antibiotics

While most participants indicated that they follow the instructions they are given, there were also many in all groups who described times when they did not take the treatment as or when required, did not take the full amount given or stopped the course of treatment early. Although they were a minority in the groups, some mentioned that if they forgot to take a pill, they simply restarted the regime later or adjusted the dose to 'catch up.' Reasons why the course of treatment may be interrupted included issues such as

allergies, forgetfulness, laziness, or wanting to consume alcohol (which most understand is not advisable when on a course of antibiotics).

Others indicated that stopping treatment early occurred primarily when they felt their symptoms had been alleviated or completely disappeared. As a result, they didn't feel it was necessary to continue the treatment.

A few participants also admitted to use of antibiotics not prescribed for the patient – either themselves or a family member. For some, this situation had occurred as a child or youth, being given an antibiotic that their parents had on hand. Notably, some participants did not see an issue with this practice. They felt it was probably more acceptable at the time. Moreover, they were also generally comfortable with taking an antibiotic intended for someone else if their condition was the same or similar to the indication the medication had originally been prescribed for. Additionally, some participants mentioned cost as a factor and that financial pressures on the family may lead to the practice of 'sharing' medications. Others simply didn't want to be inconvenienced by having to make an appointment to see their physician in order to obtain their own prescription. In one case a participant commented that their *"Mom told me to finish my brothers' prescription."*

Interestingly, a number of participants mentioned using antibiotics purchased by family members overseas. Such stories were more prevalent among women where it was the case that their parents (typically mothers, mothers-in-law or grandmothers) would bring antibiotics *"from back home"* (i.e., places where antibiotics are more readily available without prescriptions – Turkey was mentioned in this regard). This appears to be a culturally acceptable practice among some groups (i.e., participants of Asian, South Asian or Middle Eastern ethnicity)

Although participants are cognizant of expiry dates on medications, a number of them acknowledged keeping leftover medications even after they have completed the course of treatment. At the time, the intention wasn't necessarily to save the mediation for future use. Rather, participants simply defaulted to storing the medication rather than disposing of it. Notably, several women in North Battleford commented that this was a common practice among their spouses – they don't always finish their medication, and tend to keep it in case they need to use it again.

Nevertheless, some participants did themselves confirm that they re-used older, possibly expired, medications (i.e., eye drops). The motivation for doing so was usually convenience – lack of easy access to a family doctor, doctors' hours and availability, etc.

While some participants, usually in the minority, make a practice of returning unused antibiotics to the pharmacy, the majority tend to dispose of them in the garbage or store them. In fact, some were completely unaware that one could return leftover antibiotics to the pharmacy for proper disposal – *"I didn't know you could bring it back … I just throw it out!"* Most would not flush these products down the toilet or in the sink as they understand the impact on water systems. At the same time, most clearly are unaware of, or simply don't give much thought to, the implications of throwing leftover antibiotics in landfills or with organic waste.

D. Awareness and Understanding of Antibiotic Resistance

A significant portion of each discussion was dedicated to better understanding participants' awareness and understanding of the issue of antimicrobial resistance, beginning with gauging the extent to which they were familiar with various terms.

1. Terminology

Participants are most familiar with the terms *antibiotic resistance*, *drug resistance* and *superbugs*. They were less familiar with terms such as *antimicrobial resistance* (most had a sense of what this would mean, but had not heard it used before) or *AMR* (which many did not recognize as an acronym for antimicrobial resistance). Awareness and understanding of the term *antibiotic resistant bacteria* was more mixed, with about half in each group exhibiting at least some level of familiarity with this term.

In conversation, most tend to use the term antibiotic resistance, having heard it in use by their physicians, in the news, at hospitals or in documentaries. They do recognize that all of the above-noted terms are inter-related, but are challenged to explain more than the basics. For instance,

"Immunities … something not working."

"Killing bacteria."

"They are all about medications."

"Superbugs are building up their own resistance to the antibiotics. They are the upgraded version of a virus, mainly in hospitals."

An issue in using the term antimicrobial resistance is that it leads to questioning around the use of antibiotics to combat bacteria and/or viruses. While most understand that antibiotics are effective against bacteria, and not viruses, the term 'microbial' introduces some confusion into this discussion.

2. Understanding of Antibiotic Resistance

From focus groups, it is clear that the level of scientific literacy among the general population on this topic is relatively low. As such, it is important to keep the terminology, concepts and explanations simple and focused when attempting to educate or inform the public on this issue.

In each group a number of participants appeared to be confused about antibiotic use and resistance. While there was at least limited understanding that over-use and improper use are contributing factors (see Section 4, below), participants were unclear on exactly how resistance develops. Relatively few understood that resistance occurs because sensitive bacteria are killed while stronger germs resist treatment, grow and multiply. Several participants were of the view that one's body (and organs) changes and becomes resistant, rather than bacteria changing in ways that reduce or eliminate the effectiveness of drugs or other agents which have been designed to cure or prevent infections. They did not appear to fully grasp the mechanisms by which bacteria survive and continue to multiply, thereby causing more harm.

Furthermore, it was apparent from the discussion that many participants were uncertain as to how antibiotic resistance can spread from person-to-person and that this poses a significant issue for anyone who contracts an infection. Few also innately understood that transference of resistant bacteria can also occur from animals to humans and vice versa.

There was very limited understanding that international travel and trade helps to disseminate resistant bacteria around the world as animals are transported across borders and groceries are exported from many parts of the world, while bacteria follow along. This contributes to the complexity of the problem of antibiotic resistance and underpins the fact that it is a global issue, another aspect of the problem that was not strongly acknowledged or understood by participants, at least at the outset of discussions.

3. Concern about Antibiotic Resistance

The majority of participants feel that antibiotic resistance is an important, if not immediately urgent, issue to address. That said, many feel it is not an issue that affects them or their families directly, at a personal level. Either they don't take antibiotics regularly, and therefore don't feel at risk, or they believe that antibiotic resistance is an issue which is more prevalent in countries other than Canada where antibiotics are more liberally accessed and used. The comments below are reflective of participants' general lack of knowledge of the issue, which has the effect of tempering the degree to which they are concerned.

"I don't feel like I'm going to develop resistance, because I don't take antibiotics all the time."

"It's not much of an issue if you only take antibiotics once or twice a year."

A few participants agreed that the issue is more likely to affect someone in hospital who may be more exposed to infections and superbugs.

Still, others felt that antibiotic resistance is, and should be, a concern for the broader Canadian population. Many did see it as a burgeoning health issue, although it is likely that levels of concern were slightly elevated as a result of the specific focus on this issue over a one and half hour long discussion. Some remarked that they *"wish they had learned about this when I was younger … I would probably be more resistant now."* And, others commented that *"even if it doesn't affect you now, it doesn't mean it won't in the future."*

For some, the issue was of more concern in regards to their children, if not for themselves personally. Others believe that the elderly, those working in the health care sector and individuals with pre-existing health conditions are most at risk.

It should be noted that, in each group, although they were typically in the minority, at least one or two participants tended to be somewhat skeptical about claims in the news regarding the phenomenon of growing antibiotic resistance. They felt this was 'fear-mongering' by the news media and reflected unbalanced reporting.

As noted earlier, comments suggest that, much like participants' understanding of antibiotics and how they work, there is relatively limited awareness of what exactly antibiotic resistance is, and how it is developed. Discussion of the topic also uncovered some confusion and usually prompted a number of questions. While many may not fully understand the genesis of AMR and how it has developed into a major global health issue, there is at least a basic appreciation for the possibility that some antibiotics may no longer be as effective as they once were.

Confusion on the topic pertains to how resistance impacts the human body – *"is it the body that responds, or the bug?"* There were questions about the extent to which resistance impacts and changes an individual's organs/cells or whether it is the bacteria themselves are mutating. The questions most commonly posed on this issue included the following:

- Is this issue affecting the most common types of infections that we get?
- Are we talking about standard antibiotics used?
- Where does this happen?
- How does this happen?
- When does it usually happen?
- How does it spread?
- How serious is it?
- Does this mean that TB could come back in a more potent way?
- What are the linkages to vaccinations?
- What is the medical field doing about it?

When told that AMR is in fact considered to be a serious global public health threat, according to agencies like the World Health Organization and others with similar stature and credibility, many participants did agree that the issue is one we should be concerned about, but perhaps not one that is an imminent threat. Some were, however, quite surprised to hear the issue being described in this rather dire and potentially alarmist way.

Some participants acknowledged that our over-reliance on antibiotics, described as "wonder drugs" or "miracle drugs" has contributed to their growing inefficacy and that, as a society, we need to understand how to use these medications responsibly. Others took a somewhat more skeptical view, citing the news media as possibly overstating the issue and thereby leading some to question the veracity of reporting on the topic.

"There's so much information out there, it's hard to know what issues are serious. I always thought that superbugs were a scare tactic. The way the news sensationalizes … it puts things out of proportion … it makes people more skeptical."

While there is concern that, if left unhindered, the result could be pandemics and economic disruption, most nevertheless feel that the issue and risks should be manageable, and that the medical and pharmaceutical communities must be working on solutions.

"What happened before there were antibiotics? I think you're blowing it out of proportion. I think we can manage the issue … we can't really do anything about it. It's in the hands of the health professionals."

Although few made direct comparisons to other global issues such as climate change, for those who did, opinions were somewhat split as to whether the issue of antibiotic resistance was more or less urgent. Many were disinclined to compare the two – they simply didn't have enough information to make a determination or to assess the relative risks and implications of each issue.

It is clear though that climate change and global warming are more top-of-mind for most. Compared to antibiotic resistance, climate change has received more coverage and, in many ways, is an easier issue to grasp. At the same time, the extent to which individuals can themselves have an impact is seen as questionable by some participants.

In North Battleford specifically, some participants made reference to clean water supply, litter and pollution as well as racism as issues of greater concern to them, relative to AMR. In this location there was a tendency to view the threat of AMR as one that is more relevant to people living in more densely populated centers *"which are more susceptible to these types of apocalyptic threats."*

4. Contributing Factors and Thoughts on Addressing AMR

The conversation about factors which may be contributing to AMR or antibiotic resistance was somewhat limited given participants' understanding of the scope and intricacies of this issue. Most have simply not thought about the underlying causes.

When prompted, there was some agreement that travel, especially to more offbeat locations, and use of antibiotics in the agricultural sector, may be contributing to the issue, but very little sense that much could be done in this regard. In North Battleford, situated within a very active agricultural community, there was a common awareness and understanding that antibiotics and hormone shots are regularly given to livestock and that regulations on their use may not be as stringent. The pressure to use these medications stems from the desire/need to get livestock and produce more quickly from the farm to market. Additionally, participants in this location noted that the use of hormones and pesticides allows producers to raise livestock and grow their products more cheaply.

Many reiterated that the issue is one of over-prescribing, over-use and generally weakened immune systems (the latter issue was mentioned among women in North Battleford). As such, they felt that more extensive and intensive public education was required. Participants believe this is a first step to raising awareness of the extent and nature of the issue and to promoting more responsible use of antibiotics and activities such as handwashing. Notably, in each group, there were several participants who felt there was not much more they personally could do, although they generally supported more public education on the topic.

Participants advised that information and education should stress the following:

- How does/will this issue affect people personally?
- What's in it for people to take steps to address this issue?
- Balancing the benefits and the fear factor – demonstrating how people will benefit but also what they should be worried about
- How the issue is relevant?
- What are the consequences if left unaddressed?
- Emphasize the goal of using antibiotics less frequently – what is too many antibiotics?
- FAQs, myth-busting

Any public information campaign should be supported by data and statistics. In particular, some participants suggested that clearly identifying the costs associated with NOT addressing this issue could be quite illuminating and motivating. Comments by other participants that *"this could take us back 100 years"* or that a simple cut on the finger might result in death, as a result of this issue, did appear to get participants' attention and made the issue more 'real' and consequential.

Ultimately, there is a call for practical tips which would help the public both understand the issue more clearly and take steps to address it.

Specifically, some noted that the issue should be incorporated into school curriculum – *"it's something they should teach in school to children."* While not explicitly stated, these types of comments underscore the effectiveness of public education strategies that aim to shift adult attitudes and behaviours through their children, as key influencers.

In North Battleford specifically, some participants mentioned that a focus on improved dietary habits and healthier choices along with alternative/natural remedies should be considered as part of a strategy to educate the public and shift behaviours to reduce dependency on antibiotics. Emphasizing regular handwashing was also seen as helpful, but not necessarily the most critical piece to solving this issue.

A number of participants pointed to physicians, pharmacists and organizations such as the WHO as having high levels of credibility to speak out on this issue. Others also cited Health Canada and teachers as spokespeople who could effectively get the message out to a broader swath of society.

IV. Phase 2 – Detailed Findings from Nation-wide Telephone Survey

Detailed Findings from Telephone Survey

Phase 2 involved the administration of a 20-minute survey among 1,500 Canadians, aged 18 and older. The survey design ensured that the final sample reflected a cross-section of Canadians by gender, age and region. The key findings from this survey are detailed in the sections which follow. An overview of those who responded to the survey in terms of their demographic characteristics can be found in Section H.

A. Use of Antibiotics

According to the Public Health Agency of Canada (PHAC)[3], in 2017 over 24 million antibiotic prescriptions were filled mainly through community pharmacies. This report also indicates that the largest share of antibiotics are prescribed by general practitioners (65%). Other prescribers include dentists, nurses and pharmacists (22%) and specialists such as dermatologists and pediatricians (13%).

1. Use of Antibiotics among Adults, Children and Youth

Results from the current survey show that nine-in-ten respondents (91%) have personally used antibiotics at some point during their lives. Another one-in-ten have not (8%) or were unsure (1%).

While use of antibiotics is widespread across all demographic groups, some variations are evident:

- Those who report having a medical condition which would render them less able to fight off an illness are also more likely to have used antibiotics at some point (95%), compared to those who do not have a medical condition (90%).
- Women (94%) are more likely to have used antibiotics than men (88%).
- Respondents between the ages of 35 and 54 (96%) and those who are 55 or older (92%) are also more likely to say they have taken antibiotics compared to those who are between the ages of 18 and 34 (84%).

USE OF ANTIBIOTICS – YOURSELF

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	91	88	94	84	96	92	95	90
No	8	12	5	15	4	8	5	9
Don't Know	1	1	<1	1	<1	1	<1	1

Q14. Have you ever taken antibiotics? Base: Total sample

[3] Handle with Care: Preserving Antibiotics Now and Into the Future, Chief Public Health Officer of Canada's 2019 Spotlight Report (https://www.canada.ca/content/dam/phac-aspc/documents/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/preserving-antibiotics/Final_CPHO_Report_EN_June6_2019.pdf).

Use of antibiotics also varies based on education and language spoken in the household:

- Those with higher levels of educational attainment (college/trades 93% and university (92%) are more likely to say they have taken antibiotics at some point in their life, compared to those with a high school education or less (88%).
- Anglophones (93%) are more likely to have taken antibiotics, compared to Francophones (90%) and those who speak a language other than English or French (81%).

Most parents with children under the age of 18 (80%) also confirm that their child/children has/have used antibiotics. Generally, older parents, aged 55 and above (89%), as well as those between the ages of 35 and 54 (85%) are more likely to say their child/children have used antibiotics, relative to younger parents, ages 18 to 34 (53%), likely a reflection of the age of their children and their exposure to various types of infections for which antibiotics would be a standard treatment option. It should be noted that it is the youngest cohort of parents (94% of those aged 18-24), who are most likely to claim that a child has used antibiotics, compared to parents aged 25 to 34 (48%).

USE OF ANTIBIOTICS – CHILDREN

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	383	185	196	68	278	36*	50	332
	%	%	%	%	%	%	%	%
Yes	80	82	77	53	85	89	88	78
No	20	17	23	46	15	11	12	21
Don't Know	1	1	-	1	1	-	-	1

Q13. Has your child or have any of your children ever taken antibiotics? Base: Those with children under 18.
*Caution, small base size

The likelihood that a child/children within the household has used antibiotics varies by:

- Age of children under 18 in the household – Households with children under the age of six are less likely to report their child/children has used antibiotics (63%), compared to those with children aged six to 13 (83%) or between the ages of 14 and 18 (88%).
- Frequency of travel outside Canada, beyond the U.S. – The use of antibiotics among children is higher among those who report having traveled outside Canada during pre-pandemic times at least two or more times a year (91%) while slightly fewer of those who have not traveled internationally or have had limited travel outside Canada – once a year or less – are likely to say the same (78%).

2. Use of Antibiotics within the Last 12 Months

For those respondents who had reported using antibiotics at some point in their lives, an additional question was posed to obtain information regarding their frequency of use of antibiotics within the last 12 months. Almost two-thirds (62%) have not used antibiotics in the last year. One-in-five (20%) report having used antibiotics only once. A small proportion of respondents have used antibiotics more frequently within the past 12 months, with just over one-in-ten (12%) saying they have done so two to five times and very few saying they have used them five or more times (5%).

FREQUENCY OF USE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1367	633	721	342	487	526	300	1056
	%	%	%	%	%	%	%	%
Once	20	17	22	22	22	17	20	20
2-5 times	12	13	12	18	9	12	17	11
More than 5 times	5	4	6	8	4	4	12	3
None	62	65	60	52	66	65	50	66
Don't know/Refused	1	1	<1	<1	-	1	1	<1

Q16. Approximately how many times have you taken antibiotics, such as tablets, powder or syrup, IV or injections, in the last 12 months? Base: Those who have taken antibiotics at Q.14

Higher frequency of use of antibiotics is more prevalent among the youngest and oldest respondents surveyed. Just under one-third (30%) of those aged 18 to 24 have used antibiotics at least two or more times, while this is the case for somewhat fewer among the group aged 25 to 34 (23%), and declines further among those aged 35 to 44 (10%), 45 to 54 (15%) and 55 to 64 (12%). Frequency of use among those aged 65 and older (20%) increases and is roughly equivalent to levels seen among younger respondents (aged 25 to 34). This aligns with information from the aforementioned PHAC report which mentions "more antibiotics are prescribed to Canadians over age 60 than to younger people.[4]

The PHAC report referred to earlier also notes that "antibiotic use varies across Canada, with the highest prescription rates being observed in Prince Edward Island and Newfoundland and Labrador combined, and the lowest in the territories, followed by Quebec and British Columbia."[5] While actual prescribing rates may vary across Canada, the survey results do not reveal any statistical differences in the frequency of use of antibiotics by region or community size.

[4] Ibid.
[5] Ibid.

B. Views on Antibiotics: Knowledge and Attitudes

Antibiotics are important, powerful, lifesaving medications with many benefits in terms of treating bacterial infections, preventing the spread of disease and reducing serious complications from disease or illness. Overuse and misuse of antibiotics are, however, key factors that have contributed to antibiotic resistance. To explore understanding of the appropriate use and application of antibiotics, respondents were asked about their knowledge, attitudes and behaviours on the topic.

Respondents were asked about their level of agreement with a series of statements regarding the use of antibiotics under various circumstances. As shown in the table below, although most side effects from antibiotics are temporary and fade when treatment ends, a large proportion of respondents express a general aversion to antibiotics – just under half (46%) agree that they would *prefer not to take antibiotics to avoid any side effects*. Having said this, many do not seem to have a good understanding of what type of infections antibiotics are used to treat. For example, nearly half agreed with the erroneous statement that *antibiotics are effective in treating fungal infections*, and about one-in-five (18%) would *ask their doctor to prescribe an antibiotic if they caught a cold in order to prevent their symptoms from getting worse* (reflecting an incorrect understanding of the appropriate use of antibiotics).

Agreement with several other statements about the use of antibiotics indicates that modest numbers of respondents are likely to have used antibiotics inappropriately or may do so in the future. About one-quarter (24%) agree that *it's a good idea to keep a stock of antibiotics at home in case of an emergency*. And, just over one-in-ten say they *know their body well enough to feel comfortable adjusting the dose or the number of antibiotics, without having to consult a doctor or nurse* (15%) or to *take antibiotics that were prescribed for someone else* (11%).

ATTITUDES TOWARDS ANTIBIOTICS
% TOTAL STRONGLY/SOMEWHAT AGREE

	TOTAL*	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
I would prefer not to take antibiotics to avoid any side effects	46	47	45	42	46	48	47	45
Antibiotics are effective in treating fungal infections	46	46	45	56	47	38	44	47
It's a good idea to keep a stock of antibiotics at home in case of emergency	24	29	19	42	22	13	22	24
If I caught a cold, I would ask my doctor to prescribe an antibiotic to prevent my symptoms from getting worse	18	22	16	27	15	15	20	18
I know my body well enough to feel comfortable adjusting the dose or the number of antibiotics, without having to consult a doctor or nurse	15	16	14	16	13	16	17	14
I would be comfortable taking antibiotics that were prescribed for someone else, if I had the same or similar symptoms	11	13	9	17	10	8	10	12

Q17. Please indicate whether you agree or disagree with each of the following statements about antibiotics. Base: Total sample

*The percentage who strongly agreed with each of these statements ranged from 7% to 20%.

Misperceptions regarding the appropriate use of antibiotics are more common among men, younger respondents, those with lower levels of educational attainment and lower household incomes, as well as those whose first language is neither English nor French. There are also a few variations by region and community size. The table below highlights those sub-groups of the population which are more likely to agree with each of the statements.

	Sub-groups more likely to agree include …
I would prefer not to take antibiotics to avoid any side effects	
Antibiotics are effective in treating fungal infections	• 18-34 (56%) • High school or less (54%) • Residents of Quebec (53%) • Household income under $60,000 (52%)
It's a good idea to keep a stock of antibiotics at home in case of emergency	• 18-24 (52%) • First language is not English/French (36%) • 25-34 (36%) • High school or less (34%) • Household income under $60,000 (32%) • Men (29%) • Residents of smaller communities, under 10,000 population (29%)
If I caught a cold, I would ask my doctor to prescribe an antibiotic to prevent my symptoms from getting worse	• First language is not English/French (36%) • 18-24 (35%) • High school or less (27%) • Household income under $60,000 (24%) • Men (22%)
I know my body well enough to feel comfortable adjusting the dose or the number of antibiotics, without having to consult a doctor or nurse	• First language is not English/French (23%) • High school or less (22%) • Household income under $60,000 (21%)
I would be comfortable taking antibiotics that were prescribed for someone else, if I had the same or similar symptoms	• Larger households of 5 or more (20%) • First language is not English/French (19%) • 18-34 (17%) • High school or less (16%) • Households with children under 18 (15%) • Men (13%)

The survey included a short series of 'true/false' statements to test respondents' perceptions of the correct use and application of antibiotics. Respondents have a good understanding that antibiotics work effectively against bacterial infections (81% say this is true), but that they cannot kill viruses and are ineffective against most sore throats or for the treatment of colds and the flu.

However, one-quarter to one-third of respondents mistakenly believe that antibiotics can kill viruses (33%), are effective against sore throats (30%) and colds or the flu (28%). Somewhat fewer say it is safe to stop taking antibiotics once you start feeling better (15%).

TRUE/FALSE STATEMENTS REGARDING ANTIBIOTICS
% TRUE

	TOTAL*	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Antibiotics can kill bacteria	81	80	82	86	83	76	77	82
Antibiotics can kill viruses	33	35	31	39	29	31	38	31
Antibiotics are effective for most sore throats	30	35	26	46	26	23	29	31
Antibiotics are effective against colds and flu	28	34	22	42	23	22	26	28
Once you start to feel better, it is safe to stop taking antibiotics	15	19	11	23	11	13	10	16

Q18. In your view, are the following statements about antibiotics mostly true or mostly false? Base: Total sample

*Those responding 'don't know' ranged from 2%-10%.

Men, younger and less educated respondents, those in lower income households, larger families and those whose first language is neither English nor French generally hold inaccurate perceptions regarding the appropriate use of antibiotics as follows. There are fewer regional variations, although residents of Quebec are among those who are more likely to believe, incorrectly, that antibiotics can kill viruses.

	Sub-groups more likely to agree include …
Antibiotics can kill viruses	• High school or less (45%) • Residents of Quebec (41%) • Men (35%)
Antibiotics are effective for most sore throats	• 18-24 (55%) • First language is not English/French (51%) • Household income under $60,000 (41%) • 25-34 (40%) • High school or less (39%) • Larger households of 5 or more (37%) • Men (35%)
Antibiotics are effective against colds and flu	• 18-24 (55%)

	• High school or less (41%) • First language is not English/French (41%) • Household income under $60,000 (37%) • 25-34 (34%) • Men (34%)
Once you start to feel better, it is safe to stop taking antibiotics	• First language is not English/French (28%) • 18-24 (27%) • High school or less (25%) • Household income under $60,000 (22%) • Men (19%)

C. Familiarity with Antibiotic Resistance and Related Terms

Respondents were asked a series of questions to gauge their level of familiarity with antibiotic resistance, both with respect to the terminology, as well as the extent to which they have been affected by the issue both personally or indirectly. They were also asked whether they recall receiving any information on the topic within the last year.

1. Familiarity with the Terminology

The terms 'antibiotic resistance' and 'drug resistance' are most familiar to respondents compared to terms such as 'drug resistant infections,' 'superbugs,' and 'antimicrobial resistance or AMR.'

When asked about their level of familiarity with these terms, two-thirds or more say they have heard the terms 'antibiotic resistance' (68%) and 'drug resistance' (66%) and know what these mean. Somewhat fewer, but still a majority, have heard of the terms 'drug resistant infections' (57%) and 'superbugs' (51%) and know the meaning of each. By contrast, relatively few reported having heard of and know what the term 'antimicrobial resistance or AMR' means (25%).

FAMILIARITY WITH TERMINOLOGY
% "HEARD THE TERM AND KNOW WHAT IT MEANS"

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Antibiotic resistance	68	66	70	61	74	67	70	68
Drug resistance	66	65	67	61	69	66	73	64
Drug resistant infections	57	55	58	48	59	61	60	56
Superbugs	51	52	50	36	55	58	57	49
Antimicrobial resistance or AMR	25	25	24	22	28	22	23	25

Q21. How familiar are you with the following terms? Base: Total sample

Some variability in levels of awareness and familiarity is evident across demographic groups, primarily by age and household income, as well as by language spoken at home and whether one has a medical condition or not:

- Those aged 35 to 54 exhibit significantly higher levels of awareness and understanding of each of the terms relative to those aged 18 to 34 and, in some cases, compared to those aged 55 and older. For example:
    - 74% of 35 to 54 year olds vs. 61% of those aged 18 to 34 have heard of and understand the term 'antibiotic resistance;'
    - 69% vs. 61% for 'drug resistance;'
    - 59% vs. 48% for 'drug resistant infections;' and
    - 55% vs. 36% for 'superbugs.'
    - While awareness and familiarity with the term 'antimicrobial resistance or AMR' is higher among the 35 to 54 age group (28%) compared to those aged 55 and older (22%), it is not statistically different from those aged 18 to 34.
- In general, people in households with higher incomes ($100,000 or more) are more familiar with each of the terms relative to those residing in lower income households. More specifically:
    - 79% of those with household incomes of $100,000 or more are familiar with and know the meaning of the term 'antibiotic resistance' vs. those with incomes between $60,000 and just under $100,000 (72%) and those under $60,000 (56%);
    - The pattern is similar for the terms 'drug resistant infections' (69% vs. 56% vs. 47%, for the higher, middle and lower income groups respectively), and for 'antimicrobial resistance or AMR' (35% vs. 20% vs. 17%); and
    - Those in the higher income bracket are also more familiar with the term 'drug resistance' than those in the lowest income group (74% and 56%, respectively) and 'superbugs' (61% and 39%, respectively).
- Anglophones are more likely to have heard of and know the meaning of each of the terms relative to those who speak a language other than one of the two official languages in Canada. More specifically:
    - 70% of Anglophones vs. 57% of those who speak a language other than English or French are familiar with the term 'antibiotic resistance';
    - This same pattern holds for 'drug resistance' (70% vs. 50%), 'drug resistant infections' (61% vs. 37%), 'superbugs' (59% vs. 27%), and 'antimicrobial resistance' (26% vs. 15%); and
    - Anglophones are also more likely to be familiar with a number of the terms compared to Francophones, specifically 'drug resistance' (70% vs. 63%), 'drug resistant infections' (61% vs. 55%), and 'superbugs' (59% vs. 36%).
- In contrast to respondents who did not report a medical condition, those who did are more likely to be familiar with the terms 'drug resistance' (72% vs.64%) and 'superbugs' (57% vs. 49%).

Regionally, there is a higher level of familiarity with a number of the terms among residents outside the Atlantic region, including:

- 'Antibiotic resistance' (56% in the Atlantic region, compared to two-thirds or more in other provinces), 'superbugs' (43%, compared to half or more in most other provinces with the exception of Quebec), and 'antimicrobial resistance' (14%, compared to about one quarter or more in other provinces); and
- The term 'superbugs' also appears to be less well known and understood among residents of Quebec (35% in Quebec, compared to 64% among residents of B.C.).

A small group of respondents report a basic level of familiarity with each of the terms. Between one-in-ten and one-in-five respondents say they have heard of each of these terms, although they are unsure what they mean (20% indicate at least some awareness for 'antimicrobial resistance, 19% for 'superbugs,' 16% for 'drug resistance,' 15% for 'drug resistant infections,' and 12% for 'antibiotic resistance').

FAMILIARITY WITH TERMINOLOGY

% "HAVE HEARD THE TERM, BUT ARE UNSURE WHAT IT MEANS"

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Drug resistance	16	17	15	22	14	14	11	17
Antibiotic resistance	12	14	11	16	10	12	14	12
Drug resistant infections	15	15	15	18	14	13	13	15
Superbugs	19	20	19	20	17	20	19	19
Antimicrobial resistance or AMR	20	20	20	22	21	18	22	19

Q21. How familiar are you with the following terms? Base: Total sample

Combining those who have heard of and understand each term with those who indicate awareness of the term but some uncertainty regarding its meaning suggests there is a reasonable level of awareness, at least at a high level, of at least four of the five terms tested. Seven to eight-in-ten respondents claim to be aware of the terms 'drug resistance' (82%), 'antibiotic resistance' (80%), 'drug resistant infections' (72%) and 'superbugs'(70%). By contrast, awareness of the term 'antimicrobial resistance or AMR' among the general population is markedly lower (44%).

FAMILIARITY WITH TERMINOLOGY

% NET "HAVE HEARD THE TERM"

(Includes "Heard the term, and know what it means" and "Heard the term, but unsure what it means")

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Drug resistance	82	82	82	83	84	80	84	81
Antibiotic resistance	80	80	81	77	84	80	83	80
Drug resistant infections	72	71	73	66	74	74	73	72
Superbugs	70	71	68	56	71	78	76	68
Antimicrobial resistance or AMR	44	45	44	44	49	40	45	44

Q21. How familiar are you with the following terms? Base: Total sample

There are few demographic variations of note:

- Those living in rural areas/small towns (with populations under 10,000) have lower levels of awareness of the various terms. For example, 64 per cent of those in rural areas have heard of 'drug resistant infections,' compared with 72 per cent among the population overall;
- Those between the ages of 18 and 24 are also generally less likely to report having heard of any of the terms – 55 per cent report having heard the term 'superbugs' compared to 64 per cent among the population overall; and
- Education attainment is also associated with specific levels of awareness of the terms – those with high school or less are consistently below the overall average for the general population. For example, about one-third (32%) of those with lower levels of educational attainment report having heard of 'antimicrobial resistance or AMR,' compared with over two-in-five (44%) among the overall population.

Between one-in-five and half of all respondents are unfamiliar with the various terms. The lowest level of awareness and understanding is with the term 'antimicrobial resistance or AMR' (54% of respondents say they have never heard of this term). Over one-quarter have not heard of the terms 'superbugs' (29%) or 'drug resistant infections' (27%). And, just under one-in-five are unfamiliar with the terms 'antibiotic resistance' (19%) or 'drug resistance' (18%).

FAMILIARITY WITH TERMINOLOGY

% NET "HAVE NEVER HEARD OF THE TERM"

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Antimicrobial resistance or AMR	54	54	55	55	50	58	54	54
Superbugs	29	28	31	43	28	21	24	31
Drug resistant infections	27	29	26	34	25	25	26	28

Antibiotic resistance	19	20	19	23	16	19	17	20
Drug resistance	18	18	17	17	16	19	16	18

Q21. How familiar are you with the following terms? Base: Total sample

Across demographic groups:

- Those aged 18 to 34 are more likely to be unfamiliar with the terms 'superbugs' (43%) and 'drug resistant infections' (34%) compared to those 35 and older.
- Socio-economic status also correlates with awareness of the terminology. In general, those with a high school education or less are more likely to say they have not heard of any of the terms (ranging from 67% for 'antimicrobial resistance' to 31% for 'drug resistance'). This is also true of those residing in households with less than $60,000 in annual income (ranging from 63% for 'antimicrobial resistance' to 24% for 'drug resistance').
- Much higher proportions of those who speak a language other than English or French are more likely to say that they have not heard of these terms, specifically 'antimicrobial resistance' (66%, compared to the average for the overall population of 54%), 'superbugs' (58% vs. 29%), and 'drug resistant infections' (42% vs. 27%).

Regionally, residents of Quebec are least familiar with terms such as 'antimicrobial resistance,' translated as résistance aux antimicrobiens, (61% say they have never heard of it) and 'superbugs' (44%), a much higher proportion relative to the national average (54% and 29%, respectively).

In order to deepen our understanding of overall awareness and familiarity with the topic area an additive index was created based on responses to each of the five terms tested – antimicrobial resistance (AMR), antibiotic resistance, drug resistance, drug resistant infections and superbugs. Respondents were given a score of 0 (never heard of the term), 1 (have heard of it, but are unsure what it means) or 2 (have heard of it, and know what it means) and a total score, across all five terms, was produced. Scores could range from 0 up to 10 (i.e., if the respondent answers 'never heard of' to all five, or 'heard, and know what it means' to all five terms tested). The table below shows the distribution of responses as an additive index, with those scoring 0-4 being classified as having 'low awareness' of the topic, those with scores 5-6 points as being 'moderately aware,' scores of 7-8 reflecting a 'higher' level of awareness and those scoring 9-10 points exhibiting the highest level of awareness. Overall, just over one-quarter of respondents could be classified as having a very high level of awareness of the topic (27%), while similar numbers have a high awareness (26%). One-in-five (17%) exhibit a moderate level of awareness, while almost one-in-three respondents (30%) have a low level of awareness of the issue.

INDEX OF OVERALL AWARENESS OF AMR AND RELATED TERMINOLOGY

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Very high awareness (9-10 points)	27	26	27	22	30	27	30	26
High awareness (7-8 points)	26	25	27	21	26	29	28	26
Moderate awareness (5-6 points)	17	18	17	21	18	15	16	18
Low awareness (0-4 points)	30	31	29	36	26	29	26	31

New variable created from responses to Q.21a-e. Base: Total sample

Demographically, general awareness of the terminology does not vary by gender or by whether or not one has a medical condition. There is, however, some variability by age, education and household income:

- Younger respondents, under the age of 35, appear to be less familiar – less than half (43%) within this age group fall within the high/very high awareness categories, compared to 56% of those who are 35 and older.
- While just one-third of those with high school or less education (32%) are classified as having high/very high levels of overall awareness, this increases to just over half among those with a college degree/trades certificate (53%) and to almost two-thirds among those with a university education (63%).
- Those with household incomes of under $60,000 (39%) are less likely to fall within the top two categories in terms of awareness, compared to those with incomes of $60,000 to just under $100,000 (56%) and those with annual incomes of $100,000 or more (65%).
- A significantly higher proportion of Anglophones are classified as 'very high awareness' (32%), compared to Francophones (17%) and those whose primary language is something other than English or French (13%).

Regionally, over one-third of residents in Quebec (36%) exhibit low awareness and this proportion is higher as compared to Ontario (29%), Manitoba/Saskatchewan (26%), British Columbia (25%) and Alberta (23%), although not statistically different from the Atlantic region (37%). Residents in smaller communities of under 10,000 people (40%) are also among the most likely to fall within the 'low awareness' category.

2. Personal Experience with Antibiotic Resistance, Drug Resistant Infections and Superbugs

To further assess familiarity with this issue, respondents who had at least heard of the term were asked whether they have been affected by it.

As the table below shows, at least three-quarters say they have not been affected by antibiotic resistance or any of the other terms used to describe it. They were most certain that they had not been affected by antimicrobial resistance (87%). No more than one in ten reported being affected by antibiotic resistance or any of the other associated terms. In fact, these respondents were more likely to report an experience with a family member or friend, rather than one that affected them personally.

EXTENT AFFECTED BY AMR AND RELATED ISSUES

	Antibiotic resistance	Drug resistance	Drug resistant infections	Superbugs	Antimicrobial resistance or AMR
n=	1207	1229	1079	1050	665
	%	%	%	%	%
Yes, myself	5	4	3	2	1
Yes, another member of my family	9	8	8	7	3
Yes, a friend/someone else I know	9	10	9	8	4
No	76	78	78	82	87
Don't know/No answer	2	2	2	2	5

Q22. Have you or someone you know been affected by...? Base: Those who have heard of the term, and understand what it means and those who have heard of the term, but are unsure what it means at Q.21

With respect to those who report having been personally affected, there is some variability depending on the term by gender, age, language spoken at home and whether one has a medical condition which would could suppress their immune system. Variations across the regions are less prevalent, but have also been highlighted below as relevant.

Antibiotic resistance

- Women (7%) compared to men (3%)
- Francophones (8%), compared Anglophones (4%) and those who speak a language other than English or French (3%)
- By region, residents of Quebec report the highest percentage who are personally affected (8%)

Drug Resistance

- 45 to 54 year olds (7%) compared to those aged 25 to 34 (2%) and those aged 18 to 24(1%)
- Those who report having a medical condition which would make it more difficult for them to fight off a sickness (8%) versus those who do not have such a condition (3%)

Drug Resistant Infections

- 35 to 54 year olds (5%) relative to those aged 55 and over (2%) and those 18 to 34 (1%)
- Francophones (7%) compared to Anglophones (2%) and those who speak a language other than English or French (1%)

Superbugs

- Anglophones (2%) compared to Francophones (<1%)
- Those who report having a medical condition which would make it more difficult for them to fight off a sickness (5%) versus those who do not have such a condition (1%)

Antimicrobial resistance

- Men (2%) vs. women (<1%)

Combining those who have been affected personally along with those who know of someone who has yields a range between one-in-ten to one-in-five respondents who report being affected by AMR. About one-in-five or more have been affected by antibiotic resistance (22%), drug resistant infections (20%) and drug resistance (19%). Just over one-in-ten report being affected by superbugs (16%). Consistent with earlier findings indicating that respondents are least familiar with the term antimicrobial resistance, relatively few (8%) also report being affected by this issue.

EXTENT AFFECTED BY AMR AND RELATED ISSUES

% "YES" (Includes "Yes, myself", "Yes, another family member", and "Yes, a friend/someone else I know")

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Antibiotic resistance	22	17	27	22	24	20	25	21
Drug resistant infections	20	16	23	16	23	19	26	18
Drug resistance	19	15	23	19	23	16	26	17
Superbugs	16	11	20	14	16	17	27	12
Antimicrobial resistance or AMR	8	9	8	7	10	8	8	8

Q22. Have you or someone you know been affected by...? Base: Total sample

Demographically, women are generally more likely than men to report being affected directly or indirectly on each of the following: antibiotic resistance (27% vs. 17%, respectively), drug resistance (23% vs. 15%), drug resistant infections (23% vs. 16%), and superbugs (20% vs. 11%). There are no gender differences in terms of those saying they have been affected by antimicrobial resistance.

Additionally, a higher proportion of Francophones (28%), compared to Anglophones (21%) and those who speak another language (18%) say they have been affected by antibiotic resistance. By contrast, Anglophones (18%) are more likely than Francophones (10%) and those speaking a language other than English or French (9%) to report being affected directly or indirectly by superbugs. And, those who speak another language apart from one of Canada's two official languages (8%) are much less likely to report being affected by drug resistance infections compared to Anglophones (22%) and Francophones (21%).

Across the regions, there are few variations, although those in Atlantic Canada (10%) are about half as likely as those in other provinces (17% in Manitoba/Saskatchewan; 20% in each of Quebec, Ontario and B.C.; and 24% in Alberta) to say they have been affected by drug resistant infections..

3. Recall of Information on Antibiotic Use and Drug Resistance

Results thus far suggest that, although general awareness of some the terms is quite high, any familiarity with the issue does not appear to have arisen from personal experience or the experience of family and friends. To further explore general exposure to information on this topic, all respondents were asked if they recalled getting information in the past year on the unnecessary use of antibiotics. Over four-in-five (86%) do not, while just over one-in-ten (12%) do recall seeing, hearing, or reading something about this issue.

RECALL OF INFORMATION ON UNNECESSARY ANTIBIOTIC USE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	12	13	12	13	12	12	13	12
No	86	85	87	85	88	86	86	87
Don't remember/refused	2	2	1	2	1	2	2	2

Q20. In the last 12 months, do you remember getting any information on unnecessary antibiotic use, for example, not taking antibiotics for a cold or the flu? Base: Total sample

Recall is somewhat higher among university-educated respondents (15%), compared to those with lower levels of educational attainment – a college degree, trades certificate or some/completed high school (10%).

And, notably, while the vast majority of respondents do not recall receiving any information about unnecessary antibiotic use, the proportion of those who do not recall is highest among those who travel outside of Canada more than five times a year (97%), compared to those who travel less frequently (yearly, less or never (86%) or 2 to 5 times yearly (84%)).

Later in the survey, following a series of questions and statements about the use of antibiotics and the issue of drug resistance, respondents were asked if they recalled seeing anything specifically from the Government of Canada on this topic within the last five years (e.g., extending the timeframe back several years prior to the pandemic). Again, recall was modest, with just one in five saying they remember seeing information from the Government of Canada. The slightly higher level of recall on this question, compared to the previous one may be a factor of the extended timeframe (5 years versus 12 months) as well as being provided with additional information on the topic as respondents worked through the survey.

RECALL OF INFORMATION FROM THE GOVERNMENT OF CANADA

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	20	20	19	17	21	21	23	19
No	78	77	79	81	77	76	73	79
Don't remember/refused	3	2	3	2	2	3	4	2

Q30. Do you recall seeing anything from the Government of Canada on the topic of drug resistance or antibiotic resistance over the last 5 years? Base: Total sample

There are no demographic variations of note, although a slightly higher proportion of respondents with a medical condition (23%) recall seeing information on this topic from the Government of Canada, compared to others (19%). Regionally, residents of British Columbia (28%) are most likely to recall information from the Government of Canada on the use of antibiotics, compared to those in Ontario (19%), Manitoba/Saskatchewan (17%) and Quebec (15%). However, these is no statistically significant difference between B.C. and Alberta (21%) or Atlantic Canada (20%).

Levels of recall within the last 12 months and over the last five years do vary based on overall awareness of the topic:

- Among those classified as having a very high awareness of the topic (i.e., an index score of 9 or 10 across the five terms tested), almost one-in-five (18%) recall getting information in the last 12 months compared with just under one-in-ten of those classified as having low awareness (7%), that is scoring between 0 and 4 points.
- The difference is even more striking for those recalling anything from the Government of Canada on the topic of drug resistance or antibiotic resistance over the last 5 years – 30 per cent among those with a very high level of topic awareness versus just 10 per cent among those with low awareness.

D. Overuse of Antibiotics

A primary objective of this research is to better understand the level of concern respondents have about antimicrobial resistance (AMR), including the extent to which they are concerned about this issue relative to other global health issues, perceptions regarding overuse of antibiotics in Canada, and general attitudes with respect to drug resistance.

4. Overuse of Antibiotics as a Global Health Concern

From a list of twelve different global health issues, respondents were asked to select which two issues concern them the most. Overall, one-in-ten (9%) selected 'overuse of antibiotics', and it ranks 6th of 12 as an issue of concern. The top issue, selected by almost one-half (48%) is Covid-19, followed by increasing rates of diabetes, cancer and heart disease (39%), air pollution and climate change (36%), reluctance to vaccinate (21%) and obesity and overweight (19%).

AMR AMONG GLOBAL HEALTH ISSUES

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Covid-19	48	47	50	50	43	52	47	49
Increasing rates of diabetes, cancer and heart disease	39	38	40	35	44	37	41	38
Air pollution and climate change	36	34	39	44	35	33	35	37
Reluctance to vaccinate	21	18	23	20	18	24	22	20
Obesity and overweight	19	22	15	17	22	16	19	19
Overuse of antibiotics	9	9	9	6	10	9	7	9
Widespread flu outbreaks, such as H1N1	6	7	5	6	6	5	6	6
Mosquito-borne diseases e.g., West Nile or Zika	4	5	2	3	4	4	3	4
Increase in sexually transmitted diseases	3	3	2	6	2	1	2	3
Mental health	1	1	1	1	1	<1	1	1
Loss of rights and freedoms/government	1	1	1	<1	1	1	1	<1
Overdose crisis/opioids	1	<1	1	-	1	1	-	1
Other	2	2	1	1	1	3	2	1
Prefer not to answer	2	2	1	1	2	3	2	2

Q9. Please tell me what two issues concern you the most. Base: Total sample

Likelihood of selecting 'overuse of antibiotics' as a health issue of concern varies by region, with respondents living in provinces/regions outside of Quebec being significantly more likely to select it as an issue than those living in Quebec (Alberta, 14%; Atlantic region,13%; BC/Territories, 12%; Manitoba/Saskatchewan,10%; Ontario, 8%; and Quebec,4%).

Comparatively, respondents living in Quebec are more likely than those in most other regions to select 'Covid-19' as a top health issue of concern (Quebec, 57%; Manitoba/Saskatchewan, 52%; Ontario, 49%; Atlantic region, 42%; Alberta, 41%; and BC/Territories, 40%).

5. Overuse of Antibiotics within Canada

Asked about the extent to which they believe overuse of antibiotics in Canada is a problem, over two-in-five (43%) characterize it as a 'major' problem, while just over one-third (36%) indicate that it is a 'minor' problem. About one-in-ten (12%) do not consider it to be a problem.

PERCEIVED OVERUSE OF ANTIBIOTICS IN CANADA

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Major problem	43	42	43	32	40	53	49	41
Minor problem	36	34	38	44	36	31	32	37
Not a problem	12	15	9	16	14	7	12	12
Don't know/Refused	9	9	10	8	10	9	7	10

Q19. Do you think that overuse of antibiotics in Canada is a...? Base: Total sample

Across demographic groups:

- More than one-half (53%) of those 55 and older indicate that it is a major problem, compared to smaller proportions among those 35 to 54 years of age (40%), and people under 35 (32%).
- While the majority of men view antibiotic overuse as an issue, men (15%) are nevertheless somewhat more likely than women (9%) to believe that overuse of antibiotics is 'not a problem'.

By region:

- People living in Ontario (15%) are more likely than those living in either Quebec (10%) or B.C. (8%) to believe that overuse of antibiotics is 'not a problem'.

E. Concern Regarding Drug Resistance and Affected Sub-Groups of the Population

Survey respondents were provided with a brief explanation of drug resistance – *it is when antibiotics are no longer effective in treating infections that will make you sick*. They were then asked about their level of concern regarding the issue as well as their perceptions regarding which sub-groups of the population are mostly affected by drug resistance.

1. Concern about Drug Resistance

More than one-half (57%) of respondents indicate that they are worried about the issue of drug resistance. People are more likely to be 'somewhat' than 'very' worried (41% and 16%, respectively). Conversely, about two-in-five (42%) are 'not too worried' (24%) or 'not worried at all' (18%).

WORRY ABOUT DRUG RESISTANCE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
TOTAL WORRIED	**57**	**56**	**59**	**55**	**59**	**58**	**60**	**57**
Very worried	16	14	17	13	16	18	15	16
Somewhat worried	41	41	42	42	43	40	45	41
Not too worried	24	24	24	31	22	21	21	25
Not worried at all	18	20	16	13	19	20	18	18
TOTAL NOT WORRIED	**42**	**44**	**40**	**44**	**41**	**41**	**39**	**43**

Q23.Drug resistance is when antibiotics are no longer effective in treating infections that will make you sick. How worried are you about this issue? Base: Total sample

Across demographic groups:

- Levels of worry about drug resistance vary somewhat by education level, such that people with a university degree are more likely than those with a high school diploma or less to be very or somewhat worried (62% versus 50%).
- Francophones are more likely than Anglophones to be very or somewhat worried (62% versus 55%).

By region:

- People living in Quebec (60%) or Ontario (60%) are more likely than those living in the Atlantic region (46%) to be very or somewhat worried.

Respondents are particularly worried about how the drug resistant infections could spread throughout the population. More than two-thirds (68%) say they are somewhat or very worried about drug resistant infections spreading from person to person, while fewer, but still a majority (56%) express the same level of concern about the spread of infection from animals to humans.

WORRY ABOUT SPREAD OF DRUG RESISTANT INFECTIONS
% TOTAL VERY/SOMEWHAT WORRIED

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Drug resistant infections spreading from person to person	68	64	71	71	66	67	71	67
Drug resistant infections spreading from animals to humans	56	53	59	58	55	56	56	56

Q24. And, how worried are you about each of the following? Base: Total sample

Across demographic groups and regions, residents of Quebec (76%), Francophones (74%), women (72%) and those with household incomes under $100,000 (71%) are among those groups who are more likely to express concern about the spread of infection from person to person.

The spread of drug resistant infections from animals to humans is a greater concern for parents of very young children under six years of age (68% are somewhat or very worried), those who speak a language other than English or French (66%), residents of Quebec/Francophones (64%), parents with children in their pre-teen years, from age six to 13 (62%), and those with household incomes under $100,000 (59%).

2. Groups Affected by Drug Resistance

The majority (56%) of respondents are of the view that drug resistance affects everyone, while just under two-in-five (39%) say that certain groups or segments of the population are particularly vulnerable. A very small percentage of the population expresses some uncertainty (5%).

Those under age 35 are somewhat more likely to believe that certain groups are more vulnerable. Examining this age cohort more closely shows that the subset of those between the ages of 18 and 24 (45%) are most likely to hold this view, while this view is less widely held among those aged 45 to 54 (35%) and those aged 54 to 64 (33%).

WHO IS VULNERABLE – CERTAIN GROUPS OR EVERYONE?

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Some groups are more vulnerable	39	39	39	42	38	37	37	39
Affects everyone	56	57	55	53	58	58	59	55
Don't know/Refused	5	4	6	5	4	5	3	5

Q26. In your view, are some groups or segments of the population more vulnerable to drug resistance or do you feel that it is something that affects everyone? Base: Total sample

Views on this question do not vary significantly by region or other demographic characteristics. There is also minimal variability based on overall knowledge of and familiarity with this issue.

Respondents who indicated that certain groups are more vulnerable to drug resistance were asked a follow-up question to solicit their views on the specific groups they felt are most susceptible. From a list which was read by interviewers, people with weakened immune systems (78%), those with chronic health conditions (76%) and the elderly (74%) are identified by about three-quarters or more of respondents as being more vulnerable. Just over two-thirds (69%) also point to patients who have long stays in hospital. Almost half (49%) cite infants and children, while just over two-in-five (43%) identify healthcare workers as being more susceptible to drug resistant bacteria.

A number of other groups or segments of the population are also mentioned on an unprompted basis by small numbers of respondents (3% or less). These include marginalized populations such as those with lower household incomes and the unhoused, as well as people residing in certain regions of the world or working in specific types of industries, and those who over-use the health care system, drugs and antibiotics.

GROUPS THAT ARE PERCEIVED TO BE MOST VULNERABLE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	583	280	299	171	193	213	118	460
	%	%	%	%	%	%	%	%
People with weakened immune systems	78	77	80	80	79	78	84	77
People with chronic health conditions	76	70	82	75	81	73	80	75
Elderly	74	71	76	78	71	73	73	74
Patients who have long stays in hospitals	69	60	78	70	69	68	75	68
Infants and children	49	46	52	53	47	46	58	46
Healthcare workers	43	40	45	45	38	46	54	39
People with low income/the poor	3	5	2	4	3	3	6	3
People who over-use drugs/antibiotics	3	1	5	1	6	2	4	3
People without homes/homeless	1	1	2	1	2	1	2	1
People from certain parts of the world/genetics	1	1	1	1	1	2	1	1
People who are marginalized/minorities (general)	1	1	1	1	1	1	2	1
People who are Indigenous	1	1	1	1	1	1	-	1
People who work in certain industries (general)	1	1	<1	-	1	1	-	1
People who over-use the health care system/ hypochondriacs	1	-	2	-	-	2	1	1
People who work as teachers	1	<1	1	-	<1	1	2	<1
Other	3	3	3	2	3	4	1	3
Don't know/Refused	1	2	1	-	1	3	1	2

Q27. Which groups do you feel are most vulnerable to drug resistance? Base: Total sample

Across demographic groups:

- Women are more likely than men to identify those with chronic health conditions (82% vs. 70%) and patients who have long stays in hospital (78% vs. 60%); and
- Although mentioned by relatively few respondents, overall, those with higher annual household incomes – $150,000 or more (8%) – are more likely to identify lower income households as being more vulnerable to drug resistance compared to others with more modest financial resources.

Views on those groups which are more vulnerable to drug resistance also vary to some extent by self-reported health status:

- Respondents who rated their own health as either 'poor' or 'very poor' are much more likely to identify the elderly (100%) and people with weakened immune systems (97%) relative to those who reported their health status as in the range of 'fair' to 'excellent;' and
- As noted in the chart above, respondents who indicated they had a medical condition which weakens their body's ability to fight off infections are more inclined, compared to those who do not have such a condition, to cite infants and children (58% vs. 46%) as well as health care workers (54% vs. 40%) as being more vulnerable.

By region:

- Residents of Atlantic Canada and Alberta are more likely to identify people with chronic health conditions as among the more vulnerable within society. Of the various possible 'vulnerable' groups which respondents considered this was the top mention by just over nine-in-ten respondents in Atlantic Canada (93%) and Alberta (92%);
- Albertans are also most likely to identify the elderly (88%) in response to this question; and
- In general, a lower percentage of respondents from Quebec cited any of the groups relative to those residing outside Quebec. Although a majority of Quebeckers pointed to people with weakened immune systems (70%), the elderly (67%), people with chronic health conditions (64%) and patients experiencing long hospital stays (56%), the frequency with which each of these groups is cited is lower in Quebec compared to mentions by respondents from other provinces and regions.

F. Drug Resistance: Contributing Factors and Possible Actions to Address the Issue

Antibiotic resistance is accelerated by the overuse and misuse of antibiotics, as well as poor infection prevention and control. Respondents were asked about the extent to which a series of factors are seen as contributing to drug resistance as well as possible actions to address the issue.

1. Contributing Factors

Across the board, strong majorities believe that all the factors examined cause drug resistance to at least some extent. Over four-in-five respondents say that overprescribing by doctors (83%) or in walk-in clinics (81%), along with patients who unnecessarily request antibiotics (82%) contribute to this issue. Misuse (78%), overuse in livestock and fish farming (76%), and obtaining antibiotics improperly (74%) are also viewed as contributing factors by about three-quarters of respondents. And, just over two-thirds (68%) say that waste products from antibiotics entering the environment cause drug resistance to some or a great extent.

FACTORS CONTRIBUTING TO DRUG RESISTANCE
% TOTAL "TO A GREAT EXTENT/SOMEWHAT"

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Overprescribing of antibiotics by doctors	83	82	83	79	86	83	84	82
Patients requesting antibiotics when they are not needed	82	79	85	78	85	82	82	82
Overprescribing of antibiotics at walk-in clinics	81	80	81	80	83	80	82	80
Misuse, such as not finishing the full course of antibiotics	78	76	80	74	81	79	81	78
Overuse of antibiotics in livestock and fish farming	76	76	76	72	78	77	77	76
People obtaining antibiotics, not through a doctor	74	71	77	73	76	73	75	74
Waste products from antibiotics entering the environment	68	66	70	65	68	71	70	68

Q28. To what extent do you believe each of the following are factors contributing to drug resistance? Base: Total sample

Given the large numbers of respondents who feel that all of the factors contribute to this issue, it is useful to examine the proportion who say each of these is a contributing factor to a 'great extent.' When considered through this lens, it becomes clearer that most respondents believe unnecessary requests by patients (53%) and overprescribing by doctors (50%) are the key contributing factors, while fewer than half view any of the others causes examined as critical.

FACTORS CONTRIBUTING TO DRUG RESISTANCE
% "TO A GREAT EXTENT"

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Patients requesting antibiotics when they are not needed	53	50	56	49	56	53	54	53
Overprescribing of antibiotics by doctors	50	46	53	46	54	49	50	50
Misuse, such as not finishing the full course of antibiotics	46	42	50	42	48	48	51	45
Overprescribing of antibiotics at walk-in clinics	46	45	46	45	48	43	47	45
People obtaining antibiotics, not through a doctor	43	39	46	41	44	43	44	43
Overuse of antibiotics in livestock and fish farming	42	41	43	35	43	45	44	41
Waste products from antibiotics entering the environment	30	27	33	29	28	33	35	29

Q28. To what extent do you believe each of the following are factors contributing to drug resistance? Base: Total sample

Many respondents also expressed worry that travelers are a critical vector. Seven-in-ten (70%) are either 'somewhat or very worried' about people who travel outside of Canada bringing drug resistant bacteria and infections to Canada.

INTERNATIONAL TRAVEL AS A VECTOR OF AMR
% TOTAL VERY/SOMEWHAT WORRIED

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
People traveling outside of Canada bringing drug resistant bacteria and infections to Canada	70	65	75	68	66	76	76	69

Q24. And, how worried are you about each of the following? Base: Total sample

The perception that international travelers act as potential vectors of drug resistant bacteria and infections is more likely to be found among:

- Francophones (80%) and those whose first language is neither English nor French (74%), compared to Anglophones (67%);
- Those with a medical condition (76%);
- Respondents aged 55 and older (76%);
- Women (75%);
- Those with lower levels of education (college or trades (76%); high school or less (74%)) relative to those with a university education (66%); and

- Those with lower household incomes (77% among those with under $60,000 income; 71% among those with $60,000 income to just under $100,000) compared to those whose residing in households earning $100,000 or more yearly (60%).

Regionally, residents of Quebec (81%) are most likely to say they are 'somewhat or very worried' about the issue of travellers bringing drug resistant bacteria and infections into Canada. Concern about this issue is also higher in Ontario (72%) relative to Alberta (70%), Atlantic Canada (65%), Manitoba/Saskatchewan (59%) and B.C. (57%).

2. Actions to Address Drug Resistance

The survey included questions to assess respondents' attitudes regarding actions they personally can take to address the issue of drug resistance, as well as their perceptions of the extent to which drug resistance is an issue for people living in other countries compared to Canada. Overall, more than one-half (56%) of respondents agree with the statement "*there is not much that I can do, as an individual, to address the issue of drug resistance*" (22% agree strongly). Fewer respondents agree that *'using antimicrobial products, like soaps and household cleaners, will help prevent drug resistance,' a statement which is incorrect* (overall, 37% agree and only 12% agree strongly). And, just under one-third of respondents (30%) agree that '*drug resistance will affect people living in other countries more than it will Canadians'*.

AGREE/DISAGREE STATEMENTS REGARDING RESISTANCE
% TOTAL STRONGLY/SOMEWHAT AGREE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
There is not much that I can do, as an individual, to address the issue of drug resistance	56	58	54	57	54	58	58	56
Using antimicrobial products, like soaps and household cleaners, will help prevent drug resistance	37	39	34	42	35	34	36	37
Drug resistance will affect people living in other countries more than it will Canadians	30	35	25	34	29	29	27	31

Q25. Do you agree or disagree with each of the following statements about drug resistance? Base: Total sample

Agreement with each of the first two statements varies by age and education:

There is not much that I can do, as an individual, to address the issue of drug resistance

- People 65 or older (62%) are more likely than those in other age groups to agree; and
- People with a high school diploma or less (64%) are more likely than those with either a college diploma (55%) or university degree (53%) to agree.

Using antimicrobial products, like soaps and household cleaners, will help prevent drug resistance.

- People aged 18 to 34 (42%) are more likely than those 35 to 54 years of age (35%) or 55 and older (34%) to agree; and
- People with a high school diploma or less (40%) or a college diploma (40%) are more likely than those with a university degree (33%) to agree.

Agreement with the third statement also varied by educational level, in addition to gender and language:

Drug resistance will affect people living in other countries more than it will Canadians.

- Men are more likely than women to agree (35% versus 25%);
- People with a high school diploma or less (38%) are more likely than those with a college diploma (29%) or a university degree (27%) to agree.
- People who speak a language other than English or French at home (41%) are more likely than those who speak either English (30%) or French (24%) to agree.

Levels of agreement with these statements do not vary across the regions.

G. Information Sources

Several questions were included in the survey to gauge who respondents rely on when they are making decisions related to their mental health and general well-being as well as those they would trust to provide them with information on antibiotics and drug resistance.

A strong majority of respondents (86%) report that they are likely to follow the advice of a health professional when making decisions about their own health. In order of the frequency with which they were mentioned, this is followed by simply looking up relevant information themselves (63%) and relying on their own previous experience (59%), both of which are cited by majorities of respondents. Following the advice of family or friends is cited by just over one-third of respondents (35%). Other sources of information on health-related matters are mentioned far less frequently and include advice from the media (13%), the advice of alternative medicine professionals (1%), as well as that from government or public health officials (<1%).

DECISIONS AFFECTING OWN HEALTH

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Follow the advice of a health professional	86	82	89	83	85	87	88	85
Look up information about the topic	63	62	65	71	66	55	58	65
Base your decision on previous experience	59	58	61	67	55	58	60	59
Follow the advice of family or friends	35	36	32	49	35	25	32	35
Follow the advice of media	13	15	12	15	12	13	12	14
Follow the advice of an alternative medicine professional	1	<1	1	<1	1	1	1	1
Follow the advice of the government/public health	<1	<1	1	1	<1	<1	1	<1
Other	1	1	1	<1	<1	1	1	1
Don't know/Refused	<1	<1	<1	<1	-	1	1	<1

Q12. When you are making decisions about your own health, including when you feel ill, but also your mental health and general well-being, which of the following do you do? Base: Total sample

Women are more likely than men to follow the advice of a health professional. Younger respondents are more likely to look up health information themselves, base their decision on their previous experience or follow the advice of family or friends compared with older respondents.

Across other demographic groups:

- Respondents with a university education are the most likely to cite the top sources above than are those with lower levels of education.
- Those with higher annual incomes are more likely to cite looking up the information themselves (69%) and basing their decision on their previous experience (64%).
- Quebecers and French speakers are less inclined than other regions/English speakers to cite any of the top sources of health decision information sources.

Among respondents, physicians are far and away the most trusted source for information about antibiotics and drug resistance (76%). Many also trust pharmacists (41%) although not to the same extent as doctors. Just under one-quarter cited researchers or experts (23%).

TRUSTED SOURCES

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
A doctor	76	74	79	75	78	76	78	76
A pharmacist	41	34	47	33	37	50	49	39
Researchers or experts	23	25	22	32	23	17	17	25
A health-related website (such as the Mayo Clinic or the World Health Organization)	11	11	10	12	9	12	8	11
A nurse	9	10	9	12	12	6	7	10
The Government of Canada	7	8	6	8	7	7	7	7
Family or friends	4	4	3	7	4	1	4	4
Online social media	1	1	1	2	1	1	1	1
Companies that make antibiotics	1	1	<1	1	1	1	<1	1
The news media	1	1	<1	-	<1	1	1	<1
Don't know/Refused	1	1	1	-	1	2	1	1

Q29. Who do you trust the most when it comes to providing you with information on antibiotics and drug resistance? Base: Total sample

Women are more likely than men to trust doctors and pharmacists. Pharmacists are also more likely to be cited as a trustworthy source of information among those with an existing medical condition and older respondents (55+ years of age).

Across other demographic groups:

- Pharmacists are more trusted among respondents with less than university education (~47% vs. 35% among university educated), while researchers/experts are more trusted among the university educated (30% vs. ~18% among non-university educated).
- Those with children under 18 years of age are more likely to trust a pharmacist versus those who do not have children under 18 years of age (43% and 34%, respectively).
- Francophones (43%) and Anglophones (42%) are more likely to identify pharmacists as trusted sources of information, compared to those whose first language is neither of Canada's official languages (28%).

Regionally, residents of Manitoba/Saskatchewan (84%) are more likely to cite doctors as a trusted source of information, while pharmacists are more likely to be cited by those in the Atlantic region (48%).

H. Respondent Profile

This survey was administered by telephone to a representative sample of Canadians, 18 years of age and older, across Canada. The information below provides a snapshot of respondents who participated in the survey by region, in terms of where they reside, and key standard demographics such as gender, age, educational attainment, household income, size of household including the number of children in the household under the age of 18, and language spoken at home. Additional data was also obtained regarding respondents' self-reported health status and the frequency with which they travel outside of Canada.

1. Gender

The final sample was split about evenly by gender – 51 per cent identified as female, 48 per cent as male and 1 per cent as we other. This reflects the fact that the sample design aimed for a 50/50 gender split in the final sample. This is a standard practice in Government of Canada public opinion research studies targeting the general population, unless the topic or issue being studied suggests that a different approach should be taken.

GENDER

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Female	51	-	100	50	50	52	56	50
Male	48	100	-	50	49	47	43	49
Other	1	-	-	1	1	1	1	1

Q2. What is your gender? Base: Total sample

- The gender split remains roughly 50/50 between men and women across all age groups.
- Notably, among those who self-identified as female, a slightly higher proportion indicated they had a medical condition (56%), relative to those who self-identified as male (43%).

2. Age

Quotas were also set to ensure that the final sample generally reflected the distribution of the Canadian population, aged 18 and older, by age. The final sample includes just over one-quarter (27%) of respondents under age 35 – 11 per cent between the ages of 18 and 24 and 16 per cent between 25 and 34 years of age. About one-third (34%) were between the ages of 35 and 54 (16% aged 35-44; 18% aged 45-54). Seniors aged 55 and older comprise almost two in five of the sample (38%) with 17 per cent indicating they are 55 to 64 years of age and 21 per cent 65 years of age or older. A small number of respondents (1%) preferred not to divulge their age.

AGE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
18 to 24	11	11	10	40	-	-	7	12
25 to 34	16	16	16	60	-	-	8	19
35 to 44	16	16	16	-	48	-	9	18
45 to 54	18	18	17	-	52	-	16	18
55 to 64	17	18	17	-	-	45	26	15
65 or older	21	20	22	-	-	55	33	18
Prefer not to answer	1	<1	1	-	-	-	<1	1

Q4. Would you be willing to tell me in which of the following age categories you belong? Base: Total sample

The proportion of men and women within each of the age cohorts is roughly equal, and is reflective of the application of interlocking quotas by age and gender in the sample design.

As might be expected, respondents in the older age cohorts are more likely than those who are younger to report having a medical condition.

- One-third (33%) of those aged 65 and older and one-quarter (26%) of those between the ages of 55 and 64 indicate they have a medical condition. This compares with one-in-ten or fewer among those aged 18 to 44.

3. Education

With respect to respondents' highest level of educational attainment, almost half (47%) report having some education at the university level (a university certificate or diploma (6%), a bachelor's degree (24%) or a post graduate degree (17%)), while just under one-quarter (23%) have some training at the college level, CEGEP or a non-university certificate or diploma. One-quarter of respondents (25%) indicate having some high school education or less (5%) or having graduated with a high school diploma or equivalent (20%). A very small proportion (3%) report having a registered apprenticeship or other trades certificate/diploma.

EDUCATION

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Less than a High School diploma or equivalent	5	5	4	1	4	8	8	4
High School diploma or equivalent	20	23	18	27	12	23	25	19
Registered Apprenticeship or other trades certificate or diploma	3	5	1	1	4	4	4	3
College, CEGEP or other non-university certificate or diploma	23	20	25	21	23	24	28	21
University certificate or diploma below bachelor's level	6	7	6	6	6	7	7	6
Bachelor's degree	24	24	24	29	28	17	18	26
Post graduate degree above bachelor's level	17	15	20	13	22	16	11	19
Prefer not to answer	1	1	1	1	1	1	1	1

Q33. What is the highest level of formal education that you have completed? Base: Total sample

Those who state having a high school education as their highest level of educational attainment are more likely to be:

- Men (23%) compared to women (18%); and
- Among the youngest and oldest age cohorts (31% among those aged 55 and older; 28% among those aged 18-24) relative to those between the ages of 35 and 54 (16%).

By contrast, those with a post graduate degree, above a bachelor's level, are predominantly:

- Aged 35 to 54 (22%), compared to those aged 55 and older (16%) or those aged 18 to 24 (13%); and
- Women (20%) versus men (15%).

Educational attainment is also closely correlated with household income. This aligns with Statistics Canada data which shows higher average earnings among Canadians who have obtained a postsecondary certificate, diploma or degree.[6]

While not shown in the table above, those with a bachelor's degree are more likely to report having an annual household income of $60,000 or higher. Among respondents with a post graduate degree, one-third (33%) report an annual income of $150,000 or more. About one-in-five report incomes of $80,000 to just under $150,000 annually, while one-in-ten or fewer state their annual household income is below that level.

[6] Census in Brief: Does Education Pay? A comparison of earnings by level of education in Canada and its provinces and territories, November 17, 2017, Statistics Canada (https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016024/98-200-x2016024-eng.cfm).

4. Household Income

The final sample for this survey comprises a reasonable cross-section of respondents by household income with roughly similar proportions reporting an annual household income of under $80,000 (45%) and $80,000 or higher (40%). Just over one-in-ten (14%) declined to respond to this question.

HOUSEHOLD INCOME

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Under $20,000	7	6	7	10	4	8	11	6
$20,000 to just under $40,000	13	11	14	15	9	15	14	12
$40,000 to just under $60,000	12	12	13	13	10	14	15	12
$60,000 to just under $80,000	13	14	12	15	12	14	15	13
$80,000 to just under $100,000	11	12	11	12	13	9	12	11
$100,000 to just under $150,000	13	14	13	13	17	10	8	15
$150,000 and above	16	19	14	9	26	13	11	18
Prefer not to answer	14	12	16	13	10	18	14	14

Q34. Which of the following best describes your total household income last year, before taxes, from all sources for all household members? Base: Total sample

Those sub-groups reporting an annual household income of $150,000 or more are more likely to:

- Be men (19%), compared to women (14%);
- Be aged 35 to 54 (26%) relative to those aged 55 and older (13%) or those under age 35 (9%);
- Have larger households – with 3 or 4 members (27%) while a smaller percentage of those with incomes at this level are single or dual members households (3% and 15%, respectively); and
- Indicate having achieved a higher level of educational attainment – at least some university or having graduated from university (24%), compared to those with a college diploma or trades certification (14%) or having gone nor further than high school or less (7%).

Additionally, those who report higher annual household incomes, of $100,000 or more are more likely to say they do not have a medical condition which could weaken their body's ability to fight off infection (18% among those with household incomes of $150,000 or more; 15% among those with household incomes of $100,000 to just under $150,000). The proportion of respondents at this income level who indicate they do have a medical condition is smaller (11% among those with incomes of $150,000 or more and 8% among those with incomes in the range of $100,000 to just under $150,000).

5. Household Size and Composition

One-third (33%) of respondents to the survey reside in dual family households, while one-in-five (20%) are single family households. Larger households, of three or more, comprise almost half (47%) of the total sample.

The mean size of household is 2.8, slightly higher than the average of 2.4 reported by Statistics Canada[7] based on 2016 census data.

SIZE OF HOUSEHOLD

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
1	20	19	21	16	13	28	24	19
2	33	32	33	28	18	49	36	31
3	16	16	15	19	19	10	13	16
4	17	17	17	13	30	8	14	17
5 or more	14	15	12	21	20	3	10	15
Prefer not to answer	2	1	2	4	1	1	2	2

Q7. How many people live in your household, including yourself? Base: Total sample

Just over one-quarter of survey respondents (24%) reported they are the parent of a child under the age of 18 who lives in their home.

PARENTAL STATUS

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	26	26	26	17	55	6	16	28
No	74	74	74	83	45	93	84	71
Prefer not to answer	0	1	0	-	0	1	-	1

Q6. Are you the parent of children living in your household who are under the age of 18? Base: Total sample

[7] Census Profile, 2016 Census, Statistics Canada (https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Geo2=PR&Code2=01&SearchText=Canada&SearchType=Begins&SearchPR=01&B1=Families,%20households%20and%20marital%20status&TABID=1&type=0).

These are more likely to be aged 35 to 54 (55%), although a large proportion of respondents within this age group do not have any children under 18 in the household (45%). Not unexpectedly, those respondents who indicate not having children under age 18 in the household are disproportionately older (aged 55 or older (93%)) or younger (under age 35 (83%)).

Respondents were also asked about the age of each of the other individuals in their household. About nine in ten (89%) report having children aged 19 or older. Just under one in five (17%) have children aged 14 to 18 years. About one-quarter (26%) have younger children between the ages of 6 and 13 (14% aged 11 to 13; 12% aged 6 to 10). Just over one in ten (14%) have very young children in their household, of pre-school or kindergarten age (9% aged 2 to 5 years; 5% aged 1 year or less).

AGE OF CHILDREN UNDER 18

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1175	579	586	325	441	403	234	931
	%	%	%	%	%	%	%	%
1 year old or less	5	4	5	9	5	<1	2	5
2-5 years old	9	9	9	14	13	1	3	11
6-10 years old	12	12	12	10	23	2	9	13
11-13 years old	14	13	15	9	28	3	10	15
14-18 years old	17	17	17	12	30	8	16	18
19 years of age or older	89	90	89	93	82	96	94	88
Prefer not to answer	3	3	3	2	4	2	2	3

Q8. What are the ages of the other people in your household? Base: Those with 2+ members in the household

Notably, those who report having children between the ages of six and eighteen are more likely to be respondents between the ages of 35 and 54.

6. Language

Most respondents report speaking English (70%) most often at home, while just over one-in-five (22%) speak French. A variety of other languages are reported by other respondents (about 8%) with no one particular language comprising more than one to two per cent of the sample.

LANGUAGE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
English	70	70	71	67	71	71	73	69
French	22	22	22	20	22	24	20	23
Chinese/Cantonese/Mandarin	2	1	2	3	2	<1	<1	2
Spanish	1	1	1	1	3	<1	1	2
Punjabi	1	1	2	2	2	<1	1	1
Russian	1	<1	1	1	1	<1	1	1
Hindi	1	<1	1	2	1	-	1	1
Urdu	1	<1	1	1	1	-	<1	1
Arabic	1	1	1	1	1	-	-	1
Portuguese	<1	1	<1	<1	1	<1	1	<1
Bengali	<1	1	<1	1	<1	<1	-	1
Creole	<1	1	<1	1	1	-	-	1
Italian	<1	<1	<1	-	<1	1	1	<1
Farsi	<1	<1	<1	1	<1	<1	-	<1
Other	4	5	3	6	3	3	3	4
Prefer not to answer	<1	1	<1	-	<1	1	<1	<1

Q35. What language do you speak most often at home? Base: Total sample

7. Region

The sample design for this survey established regional quotas to ensure that the final sample reflected the distribution of the Canadian population, aged 18 years and older, by region across Canada. As such, the largest proportion of respondents to the survey reside in Ontario (38%) and Quebec (23%). Just over one-in-ten respondents are located in British Columbia (14%) and Alberta (11%). Atlantic Canada (7%) and the Prairies (6%) account for a much smaller percentage of the total sample.

REGION

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
NET: Atlantic	7	7	7	6	7	8	7	7
Newfoundland & Labrador	2	1	2	2	2	2	1	2
Prince Edward Island	1	2	1	1	1	2	1	1
Nova Scotia	2	2	3	1	3	3	2	2
New Brunswick	2	2	1	2	2	1	2	2
Quebec	23	24	23	22	23	25	20	24
Ontario	38	38	39	39	39	38	40	38
Manitoba	3	4	4	4	3	3	4	3
Saskatchewan	3	3	3	3	3	3	3	3
Alberta	11	11	11	13	12	9	13	10
British Columbia	14	14	13	13	13	14	13	14
NET: Territories	<1	-	<1	1	<1	-	-	<1

Q5. In which province or territory do you live? Base: Total sample

The chart above shows the distribution of respondents within each of the regions and provinces by gender, age and for those who did/did not report having a medical condition which could weaken their ability to combat an infection (e.g., heart disease, diabetes, asthma, etc.). These demographic break-outs are included in each table throughout the report as the basic level of analysis for each question included in the survey. Additional variables such as region, community size, household income, family size, etc. are also examined as part of the detailed analysis.

8. Community Size

The vast majority of Canadians reside in urban areas across Canada. Statistics Canada data recorded that, on July 1, 2018, 26.5 million people were living in a census metropolitan area (CMA) and that Canada's three largest CMAs – Toronto, Montreal and Vancouver – were home to over one-third of Canadians.[8] Almost half of respondents to the survey (48%) indicated they reside in a fairly large urban center – 22 per cent in communities with a population of 1,000,000 or more, 10 per cent in communities of 500,000 to just

[8] Canada's population estimates: Subprovincial areas, July 1, 2018, Statistics Canada (https://www150.statcan.gc.ca/n1/daily-quotidien/190328/dq190328b-eng.htm).

under one million, and another 16 per cent in communities with 100,000 to just under 500,000 residents. Just under one-in-ten (8%) live in communities with a population of 50,000 to just under 100,000, while just over one-quarter (27%) live in much smaller centers by population size – 12 per cent in communities with between 10,000 and just under 50,000 residents, 5 per cent in communities of 5,000 to just under 10,000, and 10 per cent in towns with fewer than 5,000 residents.

COMMUNITY SIZE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
1,000,000 or more	22	25	20	22	25	20	23	22
500,000 to 999,999	10	9	10	9	9	11	9	10
100,000 to 499,999	16	17	15	15	16	16	14	16
50,000 to 99,999	8	9	7	8	7	8	7	8
10,000 to 49,999	12	12	12	8	13	14	16	11
5,000 to 9,999	5	4	5	4	4	6	6	4
Under 5,000	10	10	9	9	8	12	12	9
Don't know/Refused	18	13	22	24	17	13	12	19

Q38. Approximately, what is the current population of the community in which you live? Base: Total sample

Almost one-in-five (18%) respondents did not provide a response to this question, either because they were unsure how to classify their community by its population size, or they preferred not to answer this question.

- Women (22%) are more likely than men (13%) not to have responded to this question; and
- This was also true among younger respondents (24% among those under age 35) compared to those who are older (13% among respondents aged 55 or over).

The reader should note that postal code data (e.g., the first three characters of the postal code) was also collected as part of this survey in order to conduct further analysis based on the location of respondents. As such, the data in the table above, which is based on respondents' own estimates of their community size, can be analysed in more detail in conjunction with the postal code information. It should be noted that an in-depth postal code analysis was not undertaken at this time, for purposes of producing this report

9. Other Respondent Characteristics

Several additional questions were included in the survey assuming that they may be of some interest with respect to better understanding the experience and background of respondents and the extent to which this impacts their responses in terms of their awareness, attitudes and behaviours with respect to the topic of antimicrobial resistance.

Frequency of Travel

Respondents were asked about their frequency of travel outside of Canada under non-pandemic circumstances. Two-in-five (39%) report never having traveled outside of Canada other than to the United States. Almost half (47%) indicate traveling about once a year (18%) or once every few years (29%). Just over one-in-ten (13%) say they generally travel multiple times per year (10% travel internationally 2-3 times; 2% report doing so 4-5 times; 1% report traveling internationally more than 5 times per year).

TRAVEL OUTSIDE CANADA AND THE U.S.

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Once every few years	29	30	27	34	31	23	23	30
About once a year	18	16	20	18	19	17	16	18
2-3 times a year	10	9	11	8	11	11	10	10
4-5 times a year	2	2	1	1	3	1	2	2
More than 5 times a year	1	2	1	<1	2	2	2	1
Never travel outside of Canada, beyond the United States	39	39	39	38	33	45	47	37
Prefer not to answer	1	1	1	<1	1	2	2	1

Q40. Disregarding the current pandemic circumstances, typically how often do you travel outside of Canada to places other than the United States, for either business or pleasure? Base: Total sample

Those who indicate traveling outside of Canada, beyond the United States, multiple times a year are more likely to report higher household incomes – in the range of $100,000 or more, and specifically those with annual incomes of $150,000 or higher.

Respondents who typically do not travel outside of Canada, other than to the United States are more likely to include:

- Those aged 65 and older (50%);
- Single family households (47%); and
- Those with lower annual household incomes ($20,000 to just under $40,000 (63%); under $20,000 (62%)).

Self-Reported Health Status and Healthcare Background

The majority of respondents (57%) rate their health as ‘very good’ (36%) or ‘excellent’ (21%). Almost two-in-five (39%) say their health is ‘fair’ (9%) or ‘good’ (29%). Relatively few (4%) rate their health as either ‘very poor’ (1%) or ‘poor’ (3%).

PERSONAL HEALTH STATUS

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
NET: Excellent/Very Good	**57**	**58**	**58**	**63**	**61**	**51**	**29**	**66**
NET: Good/Fair	**39**	**39**	**38**	**35**	**36**	**43**	**59**	**33**
NET: Poor/Very Poor	**4**	**3**	**4**	**2**	**3**	**6**	**12**	**1**
(6) Excellent	21	21	22	25	20	20	7	25
(5) Very good	36	37	35	39	40	30	22	40
(4) Good	29	28	30	29	28	31	36	28
(3) Fair	9	11	8	7	8	12	23	5
(2) Poor	3	3	3	1	2	5	10	1
(1) Very Poor	1	1	1	1	1	1	3	<1
Don't know/Refused	<1	-	<1	-	-	-	-	-

Q10. Would you say your health in general is …? Base: Total sample

Those more likely to rate their health as poor/very poor include:

- Respondents with lower household incomes, of $20,000 or less (14%); and
- Respondents aged 55 to 64 and those aged 65 and older (6% in each group).

The vast majority (78%) of respondents indicate they do not have a condition such as heart disease, diabetes, HIV, asthma which would make them less able to fight off a sickness.

IMMUNOCOMPROMISED

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	21	19	23	12	16	32	100	-
No	78	80	76	87	84	66	-	100
Don’t know/Refused	1	1	<1	1	<1	1	-	-

Q11. Are you someone who has heart disease, diabetes, HIV, asthma or some other condition that makes you less likely/able to fight off a sickness? Base: Total sample

Those responding ‘yes’ to this question are more likely to be:

- Individuals who rate their health status as ‘poor/very poor’ (70%), relative to those who say their health is ‘fair/good’ (32%) or ‘very good/excellent’ (11%); and
- Aged 55 and older (32%);

Finally, respondents were asked whether they had a background in healthcare. Just over one-in-ten say they do. The remainder either do not (83%) or were unsure/did not respond to the question (1%).

HEALTHCARE BACKGROUND

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	1500	723	764	406	509	574	316	1171
	%	%	%	%	%	%	%	%
Yes	16	12	21	16	17	16	17	16
No	83	87	79	83	83	82	82	83
Don't know	1	<1	1	1	<1	1	<1	1
Prefer not to answer	<1	<1	<1	-	-	1	<1	<1

Q31. Do you have a healthcare background? Base: Total sample

The most commonly cited areas of expertise for those who indicate having a healthcare background included nursing (15%), personal support worker or nursing assistant (12%), and physician or surgeon (10%). Another one-in-ten described themselves as being a student or researcher in the healthcare field (9%), while somewhat fewer indicate a background in an administrative capacity within the healthcare sector (7%). A range of other healthcare backgrounds were mentioned by five per cent or fewer respondents as shown in the chart below.

NATURE OF RESPONDENTS' HEALTHCARE BACKGROUND

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+	MED.COND. YES	MED.COND. NO
n=	246	86	158	65	85	93	54	190
	%	%	%	%	%	%	%	%
Registered nurse/Vocational nurse	15	6	20	8	15	18	16	15
PSW (personal support worker)/Nursing Assistant	12	8	14	13	9	14	14	11
Physician/surgeon	10	12	9	7	15	8	4	12
Student/researcher	9	15	6	14	9	5	<1	12
Office/administrative support (e.g. medical assistant, receptionist, secretary, administrative assistant)	7	4	9	15	5	4	4	8
Physician assistant/Nurse Practitioner	5	2	7	4	5	7	10	4
Pharmacist/pharmacist technician	5	4	6	4	6	5	5	4
Health care worker - branch/field specified	5	8	3	5	5	5	8	4
Personal experience with health care system (general)	4	7	3	8	3	3	9	3
EMT (emergency medical technician)/paramedic	4	10	1	1	8	3	3	5
Dentist/Dental Hygienist	4	2	5	5	5	3	2	5
Laboratory technician	4	2	3	-	4	5	4	4
Therapist/Chiropractor/Physiotherapist	4	1	5	8	2	2	2	4
Health care worker (general)	3	4	3	3	2	4	6	2
Management	1	4	<1	-	-	4	5	<1
Dietician/Nutritionist	1	1	1	2	1	-	1	1

Counselor/Social Worker	<1	-	1	-	-	1	-	<1
Other	2	5	1	-	1	6	5	2
Don't know/Refused	4	6	3	3	4	3	3	4

Q32. Please specify your background. Base: Those with a healthcare background

V. Phase 3 – Detailed Findings from Post-Survey Focus Groups

Phase 3 – Detailed Findings from Post-Survey Focus Groups

A. General Awareness and Understanding of Antibiotics

1. Top-of-Mind Associations

Participants' generally described antibiotics as powerful drugs that help fight off infections. Top-of-mind associations centered on the following themes:

- The general purpose and/or use of antibiotics – the kinds of infections they are generally used to treat. Some felt they were typically used for minor ailments such as *"common colds and infections,"* while others described antibiotics as more powerful drugs with *"lifesaving"* properties. A few felt that antibiotics were used to treat specific types of infections, while others described them as having a broad spectrum impact. Antibiotics were also described as a *"regular part of proper health care;"* and
- Types of antibiotics – participants most commonly referred to penicillin and amoxicillin. Amoxicillin was more frequently mentioned by those with young children.

Participants frequently spoke about antibiotics in the context of 'fighting,' 'treating,' or 'curing' disease and infection, along with 'boosting' one's immune system or overall health.

While many understood that they are effective against bacterial infections only, the distinction between bacterial and viral infections was not necessarily clearly understood by all. A few commented that they believed antibiotics treated only one of the two, but were unsure whether it was bacterial infections or viruses. Some felt that antibiotics were prescribed under certain circumstances only, to fight specific types of infections (commonly mentioned were colds, fevers, sore throats, pneumonia, ear infections, appendicitis, urinary tract infections, infected cuts, infections resulting from dental procedures, etc.) and that they were often a drug used as a last resort if the infection did not seem to be clearing up on its own. It should be noted that participants' understanding of antibiotics was not necessarily accurate. The perception among some participants was that they were to be used for a short duration only and should not be taken repeatedly over the long-term. A few participants did, however, exhibit a somewhat clearer grasp of the nature and use of antibiotics, describing viral and bacterial infections as being quite different.

"Antibiotics are for bacterial infections and they work by destroying the cells themselves. Viral infections are more about looking to find a host, rather than destroying cells."

The issue of developing a tolerance to antibiotics came up unprompted as did various practices related to the application of antibiotics. Specifically, some mentioned that it was important to finish the full course of antibiotics prescribed. Others spoke about over-use, over-prescribing, and those who don't use antibiotics *"properly,"* commenting that this has contributed to or accelerated a growing tolerance to antibiotics.

A few mentioned that they associated antibiotics with a *"short-term boost to the immune system."*

"I feel like your body builds up antibodies and uses antibiotics to help fight off the infectious bacteria."

Others took the opportunity to emphasize their preference for a more preventive approach to their and their family's health as well as their use of homeopathic remedies or dietary-based approaches to staving off common ailments and/or infections. This was more often mentioned by parents with young children and some female participants in particular. For example, some participants mentioned a focus on 'gut health' and spoke about consuming probiotics on a regular basis as a means of reducing or avoiding the need for antibiotics. These participants had a sense that antibiotics had a negative impact on *"the body's natural biome"* especially when taken repeatedly over a long period of time, or that taking too many antibiotics would damage the immune system in the long-run.

"You should use them only as a last resort, when the body is not going to get better on its own."

"They should be used sparingly."

Those participants who had some background in the health sector (e.g., some training or employed in the health sector themselves or a family member) were generally more familiar with the class of drugs known as antibiotics, their proper use and application, and the issue of declining effectiveness of antibiotics when used over the long-term or when taken inappropriately.

2. Knowledge of Antibiotics

When asked to explain how antibiotics worked, many participants responded in general terms and acknowledged that they were not entirely sure. Most had difficulty providing a detailed or technical explanation of the biochemical properties or processes of antibiotics, but generally understood that they help the body to fight off infections. Some thought of antibiotics as a *"direct hit"* on whatever infection it was fighting, or *"targeting"* the infection in order to stop it from spreading. Rather than 'disabling' the harmful bacteria, some felt that antibiotics dissolved or eliminated these bacteria.

"The chemicals in the antibiotic break down the bacteria causing the infection and that is why the body is able to get better."

Some described antibiotics as medicines that were created from the *"illness"* itself that had then been *"mutated"* in some way to be able to effectively fight the infection. There was no mention of semi-synthetic or synthetic antibiotics.

Others simply commented that antibiotics are drugs that helped trigger or boost the body's natural immune system. Some did mention that they could attack both the harmful and the good bacteria which are necessary for health maintenance and help to stimulate the body's natural immune defenses.

Again, the tendency to view antibiotics as a treatment for both bacterial and viral infections was evident in responses to this question. A few wondered whether antibiotics could be used successfully to treat COVID-19, while others were more confident, based on impressions or what they had been told by their family doctor, that antibiotics were used only to address a bacterial infection.

"I always thought that if there is a virus in your body, antibiotics will come in and help to fight that virus. The problem is that that they will also kill the other good bacteria and run the risk of lowering your immune system as well."

"They attack the virus or bacteria in you and work at the inflammation to help spur the immune system."

"I'm not really sure [how they work], but the antibodies attach themselves to the virus and neutralize it."

In further conversations, some participants commented that it was their impression that viral infections were far more transmissible/more highly contagious as compared to bacterial infections. The point was made by some that bacteria are living organisms while they believed that viruses were not. In their view this distinction resulted in different approaches to treat each type of infection. Some referenced the development of vaccines as a successful means of protection against viral infections, with reference to the COVID-19 vaccines in this regard.

"To treat viral infections we need to create antibodies within the body to kill the virus. For bacterial infections, we work to stop them from growing."

Others believed that it was more challenging to treat viral infections with any type of medication and that these types of infections were best treated with rest and fluids.

3. Perceived Benefits and Risks of Antibiotics

Most participants firmly believe that antibiotics are highly effective in the treatment of various types of infections. This is based on both personal experiences and their impression from information shared via the media. Some participants reiterated that they work best when the full course of antibiotics has been taken. At the same time, a few participants commented that the effectiveness of antibiotics may vary from person to person, and that it *"depends on a person's biology."*

"If taken properly, they absolutely do work."

"They are effective, but you have to finish your full dose."

"In some cases, the immune system can literally not recover without antibiotics … they help to assist and rebalance one's system."

Regardless of whether participants had taken antibiotics frequently or less frequently, most felt they were a very effective class of drugs. However, those who had been prescribed antibiotics frequently were more likely to mention that their efficacy has declined.

"My personal experience is that they haven't always worked for me. Maybe it has something to do with their chemical make-up. It's possibly my body is just becoming more resistant because of how frequently I have had to take them." (Participant claimed to have had strep throat 8 times over a 12-month period)

From the perspective of participants, the key benefits associated with antibiotics included:

- Immediate results;
- Instant relief from pain and/or symptoms;
- Fast-acting;
- Directly targets the infection;
- More rapid resolution of the infection/illness – some noted that an illness or infection could sideline someone for up to three to four weeks, while an antibiotic *"can do the job in just a few days, helping people to get back to their normal day-to-day lives;"*
- Prevents further complications;
- Increases life expectancy; and
- Life-saving impact/prevents life-threatening illnesses.

"In some cases they are responsible for saving people's lives from serious infections."

"You feel better within two to three days, instead of the weeks it would take to get better naturally."

A few participants in the group held among residents of the Prairies aged 18 to 34, including some from Indigenous communities, commented that it was difficult to access health care in rural areas and specifically to obtain antibiotics due to the lack of health care providers servicing rural communities. The suggestion was made that rural residents need better access to basic antibiotics, such as amoxicillin, and that these drugs should be more affordable for the average person/household.

In addition to the perceived benefits, there were also a number of downsides or perceived risks which participants associated with antibiotics. Across the groups, the most commonly mentioned issues pertained to side effects (e.g., incontinence) and allergies to specific antibiotics, as well as concerns that prolonged or long-term use and reliance on antibiotics suppresses the body's natural immune system and/or decreases the effectiveness of these drugs over time. Some felt that relying on antibiotics too heavily may result in one becoming more vulnerable to serious illness in the future. Parents with young children who were still developing were particularly concerned about this issue. Others were unsure, but questioned whether over-prescribing antibiotics to very young children in particular might be an issue. Some, however, felt that the risks to children were in fact lower than they were for adults, as their view was that children were given much smaller dosages reflecting their size and weight.

"I feel like if you are given too many antibiotics at a young age, when you are still trying to establish your natural immune system, this can make you vulnerable to illness."

"Antibiotic use effects your own ability to fight off bacteria and could make you more vulnerable to serious illness in the future."

Others viewed antibiotics as having principally a short-term impact. In this respect they felt that the antibiotic did not address the root cause of a medical issue or the infection, but rather temporarily addressed the symptoms only.

"Antibiotics are like a temporary band-aid rather than a permanent fix."

Other issues, mentioned with less frequency, included concerns that some people may develop a dependency on antibiotics or that they could become addictive, and questions about the long-term effects with some suggesting that the full effects of antibiotic use over time may not be well known. A few spoke about the use of antibiotics in agriculture and aquaculture, noting that they are becoming more prevalent in the food supply and, in this manner, contributing to humans becoming more resistant to them. Though not often mentioned, some participants were concerned that antibiotics were contaminating waterways and water sources resultant from the use of antibiotics in humans and in animal agriculture.

B. Use of and Experience with Antibiotics

Discussing their use and experience with antibiotics, most participants expressed a familiarity with antibiotics with many having been prescribed these drugs at some point over the past five years. Virtually all participants recalled having been prescribed antibiotics at some point during their lives.

1. Perceptions of Prescribing Practices

Asked to recount their experiences regarding being prescribed antibiotics by their general practitioner (GP) or family doctor, participants recalled numerous differing experiences, including a wide range in willingness of their GPs to prescribe antibiotics. Among those whose physicians generally prescribed antibiotics relatively freely some felt this was beneficial in that they were confident they could obtain antibiotics in situations where they felt they were necessary. Others expressed a desire for their doctor to suggest alternate, more 'natural,' methods of treatment before resorting to antibiotics. For those with family doctors who prescribed antibiotics only as a last resort, this approach was generally trusted with most believing their doctor had the knowledge and expertise to determine when antibiotics were necessary. Generally, in these cases participants recalled being advised to rest and drink fluids in order to let the infection naturally run its course without antibiotic intervention. A small number, particularly those dealing with a new doctor or who relied on walk-in clinics, remembered experiencing some frustration in encountering physicians who did not believe their illness required antibiotics. Several of these participants went on to seek a second opinion and received antibiotics immediately. A few participants also reported that their family doctor are relatively hesitant to prescribe antibiotics, while other medical professionals they visited, such as dentists, did so quite freely.

Asked who typically would discuss the usage instructions and potential side-effects of antibiotics would them, almost all participants recalled having these discussions with the pharmacists filling their prescription, while few had discussed medication in depth with their doctors.

Some participants attributed these variations in willingness to prescribe antibiotics to generational differences, feeling older doctors may be more likely to recommend antibiotic treatment than younger physicians. Others felt the opposite, and were under the impression younger doctors were currently being trained to rely more heavily on antibiotics compared to previous generations. Among most, however, it was generally felt that the readiness of GPs to prescribe antibiotics was more attributable to variations at the individual level and each physician's personal approach to medicine. Some believed that doctors working in walk-in clinics were more likely to prescribe antibiotics due to the large amount of patients they see on a daily basis and the related desire to cycle them through has efficiently as possible. Related to the COVID-19 pandemic, it was also expressed that physicians primarily consulting through virtual appointments may be more willing to prescribe antibiotics as they were unable to provide a more thorough in-person assessment of their patients.

Asked how they would react if they felt antibiotics were required to treat an illness or infection and were refused them by their physician, most participants believed their reaction would depend on their perceived severity of the situation, likely more readily accepting their doctor's advice if the symptoms were relatively mild or tolerable. Several participants reported following a general practice of using antibiotics as sparingly as possible and, as a result, rarely met resistance from physicians on the few occasions where they felt an illness may require antibiotic treatment. While some reported having a very trusting relationship with their doctor and thus a strong willingness to follow their GP's advice in most circumstances, others felt they would immediately seek a second opinion, being of the view that they knew their own body and when antibiotics were required to help them recover from an illness. A few participants believed they would likely take their physician's advice and try to get better without antibiotics, however, they would also be ready to visit the emergency room (ER) if their symptoms got any worse. Among those with young children, it was generally felt they would be more inclined to seek a second opinion in the case that it was their kids who were sick and they as parents believed antibiotics were a necessary course of treatment.

2. Experience Using, Storing and Disposing of Antibiotics

Focusing on habits related to taking antibiotics, participants were asked if they would typically take the full course of antibiotics prescribed to them by their physician. Participants were evenly divided, with many reporting they always finish their antibiotics, while a roughly equivalent number acknowledged they would occasionally or routinely have some of their prescription remaining. A few participants remarked that they felt it was more advantageous for them personally not to take the full course of antibiotics – *"it worked for me and I would do it again."*

A number of participants who regularly finished their full course of antibiotics believed this practice to be very important, particularly in terms of ensuring the infection is completely eliminated from the body. Some added that taking the full course of antibiotics was often explicitly instructed by their doctor. While some recalled having heard this advice, they acknowledged that on some occasions they would not finish their antibiotics, in most cases due to feeling better and either forgetting to continue taking them or no longer believing the medicine to be necessary. Among those participants with children, it was largely felt they would be more steadfast in ensuring their kids took their full course of antibiotics, with several saying they want to ensure their developing immune systems are not impacted by improper use of these drugs. Discussing whether they would ever adjust their dosage, participants largely indicated they would not. A few, however, recalled slowly weaning themselves off antibiotics, reducing the amount they took each day as they felt better.

Asked what they would tend to do with any leftover antibiotics, the most common response among participants was to hold on to them, usually in a medicine cabinet which they would empty out once or twice a year. Some participants admitted they may be inclined to take leftover antibiotics if they felt similar symptoms to a previous infection beginning; with the feeling being that these drugs may be helpful in quickly mitigating the illness. Questioned as to whether they may be willing to share these leftover antibiotics, some mentioned they may give them to family members in the same household with a similar illness, though most participants were of the opinion that antibiotics should only be used by the specific individual for whom they were prescribed. Regarding the disposal of leftover antibiotics, while a number of participants recalled typically throwing them out or putting them down the drain, a few individuals

expressed concern regarding this practice. They worried that if this was done on a large-scale, these antibiotics could enter into the wastewater and be recycled back into the environment and food supply. Some participants commented that proper procedure was to return antibiotics directly to the pharmacist who would then be able to dispose of them safely.

Participants were also questioned as to whether they had ever purchased quantities of antibiotics while travelling abroad, bringing them back to Canada at the end of their vacation. While most had not done so, a small number of participants affirmed they had, recalling purchasing antibiotics in jurisdictions such as Mexico, India, Thailand, South Korea, and Venezuela. In most cases participants recalled falling ill while travelling and visiting a local pharmacy to purchase antibiotics, typically without the requirement of a prescription. A small number also mentioned intentionally purchasing large quantities of basic antibiotics such as amoxicillin for use back in Canada, specifically for their children, citing the relatively higher cost of these drugs in Canada compared to other countries.

C. Awareness and Understanding of Antibiotic Resistance

1. Understanding of and Concern Regarding Antibiotic Resistance

A modest number of participants had heard of the term 'antibiotic resistance,' although most were unable to clearly explain what this was other than the body building up a resistance to antibiotics over time as a result of over-use.

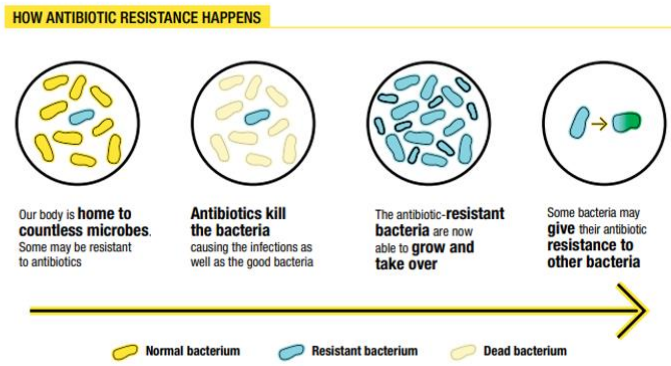
"When you have prolonged use of antibiotics, the immune system begins to adapt to it and then ultimately will reject it, rendering the antibiotics more ineffective or not effective at all."

The tendency among most participants was to view antibiotic resistance as an 'individual' health issue, rather than a wider public health issue on a more global scale. Some saw the issue of resistance as being similar to building up an intolerance to painkillers to the point where the medication did not work as effectively as it had or did not offer the patient any relief from the symptoms they were experiencing. Most generally understood that standard antibiotics used in the past were no longer as effective in treating illness as they had been previously.

Almost no one had heard of the term 'antimicrobial resistance.'

Participants were given a brief explanation of antibiotic resistance including a visual representation of how this occurs, as shown below.

Antibiotic resistance happens when bacteria that cause illness become resistant to the antibiotic drugs used to treat them.



The explanation was helpful and clarified a number of questions or comments participants had about antibiotic resistance. In particular, many had not realized that antibiotic resistance occurs when the resistant bacteria grow and multiply, and then spread and cause infections in other people. While they felt intuitively that the issue ultimately meant one's natural immune response to infection was less effective, they had not been entirely clear as to how resistance actually developed over time. Moreover, many were unaware that some bacteria give their antibiotic resistance to other bacteria, and that this creates the conditions for antibiotic-resistant germs to survive and multiply. One participant with an undergraduate degree in microbiology took issue with the last visual shown above saying that the issue is not so much one of *"bacteria giving resistance to other bacteria, but resistant bacteria that are surviving and continuing to multiply."*

Participants raised a number of questions during this conversation:

- Do we know how often this happens?
- How prevalent is this issue?
- Is this issue more prevalent in developed countries versus developing countries?
- Is this related to the issue of 'superbugs?'

Notably, very few participants in any of the groups had been personally impacted by this issue, nor did they know of anyone who had.

Nevertheless, many expressed some level of concern (at least moderate if not an extreme level of concern) about antibiotic resistance, although the issue was less relevant to them personally and thought to be of greater concern for those with weakened immune systems or who are immunocompromised. Some worried that antibiotic resistance, world-wide, may result in widespread plagues, leading to significant hospitalizations and death. A number of participants expressed concern about the potential strain on hospitals and health care resources. A few worried that it could ultimately lead to higher medical costs. Some participants thought that this would lead to the need to develop a series of stronger drugs, in order to account for those antibiotics that no longer work, and that these could potentially have more serious adverse side effects.

Several participants viewed antibiotic resistance as an issue of less concern for Canadians and more so for those living in developing countries with less access to good quality health care and where antibiotics could be purchased without a prescription. A few participants held the opposite view, speculating that antibiotic resistance may be a more widespread and serious issue in developed countries with easier access to and more frequent reliance on antibiotics.

The issues of systemic inequalities, income disparity, and marginalized communities were raised in the context of this discussion, with some participants commenting that people who lack the resources (e.g., financial), time, or ability to rest and stay home from work when they are sick are the most vulnerable to antibiotic resistance. A few Indigenous participants felt that Indigenous communities may be more affected by this issue, especially those living in rural areas. Some of these participants felt that their vulnerability to antibiotic resistance could increase with more contact with people living in densely populated urban areas.

Others described it as an issue on a more global scale, with some believing that it could spread in much the same way as COVID-19 via the movement of people across and between jurisdictions. Some participants predicted that it could lead to a situation of *"very resilient viruses that humans have no ability to fight off, either naturally or through antibiotics,"* again underscoring continuing confusion among a number of participants about their use combatting bacterial versus viral infections.

A few others were not particularly concerned. Rather, they expressed confidence in technological advancements and the ability of pharmaceutical companies to develop new antibiotics to replace those that are no longer as effective as they were in the past. Some also felt that, similar to the experience with COVID-19, certain people may be more at risk than others and that *it "really depends on personal circumstances"* by which they meant age, health status, and medical background and history. Among those who not particularly concerned about an immediate threat, some did feel that it was important to engage in more research on the issue of antibiotic resistance *"before it becomes a major issue."*

At the same time, the conversation itself stimulated additional interest and concern about the topic. Those who lived or worked in situations that exposed them to germs on a more frequent basis (e.g., schools, hospitals, etc.) and those who were themselves immunocompromised began to reconsider whether antibiotic resistance was something about which they should be more worried and more informed.

2. Contributing Factors

Participants were given some additional information and context about antibiotic resistance before continuing the discussion. They were told that the World Health Organization (WHO) has declared that antimicrobial resistance (AMR) is one of the top 10 global public health threats and requires urgent action. They were also told that the cost of this issue to national economies is significant in terms of death, disability, prolonged illness resulting in longer hospital stays, the need for more expensive medications and the financial challenges faced by those impacted and that without effective antibiotics, the success of modern medicine in treating infections, including during major surgery and cancer chemotherapy is at increased risk.

Many were surprised by this information, with very few having heard that antibiotic resistance was an important global health issue, particularly one which required an urgent response and was a threat to global public health. They wondered why they had not heard much about this topic, although there was an appreciation that the pandemic has preoccupied public health officials over the last two years. At the same time, some questioned the veracity of these statements, while others viewed the WHO as a credible source. On balance, most viewed antibiotic resistance as a moderately important, though perhaps not urgent, issue. Some felt it had the potential to become a more pressing issue, citing what they perceived to be a lack of preparedness for SARS and for COVID-19.

"If it's coming from the WHO, you would inherently believe the statements, but it feels like if you've never heard about this subject, it would be quite surprising to hear, especially given how many other [global] health issues are currently in the news."

"I feel it's important to know about, but it may not be the most pressing global health issue at this time. Higher priorities would be things like COVID-19."

Even after sharing this information, which places the issue of antibiotic resistance among the top ten global public health threats, many participants questioned whether in fact it could be considered a 'priority' issue especially given climate change and the pandemic. Some commented that a general lack of access to modern health care and medications in certain countries was a more immediate and significant threat to human health, in addition to the prevalence of diabetes and heart disease.

Others also felt there was little they could do personally to address the situation. As noted earlier, the prevailing view was that this issue likely affects other countries, particularly developing nations, more so than Canadians. Among participants who believed this to be the case, many felt that more should be done to alleviate the issue in these countries (e.g., Africa, South and Southeast Asia, including the Philippines). Several commented that more attention should be given to the issue of antibiotic resistance, if the WHO information was in fact accurate.

When asked about contributing factors, most participants defaulted to over-use of antibiotics. It was the view of some participants that the issue has arisen mainly because people have taken antibiotics as the first course of treatment to address relatively minor symptoms that the body should be able to fight off naturally. Others mentioned the following as contributing factors:

- Changes in diet that have affected gut health – concerns were specifically expressed about too much sugar and processed food in the diet which was felt to be damaging to the immune system;
- Misinformation about antibiotics;
- Overly convenient access to antibiotics, which some felt was linked to two specific trends: increased reliance on antibiotics as a first course of action by both patients and health care providers, and a shift from in-person to virtual health care visits as a result of precautions taken during the pandemic leading to what is perceived to be a less thorough assessment on the part of physicians and a greater readiness to prescribe antibiotics;
- Pharmaceutical companies aggressively marketing antibiotics and encouraging physicians to prescribe them;
- Use of antibiotics in animals which then enters the human body through the food chain and the water supply.

3. Possible Responses

While relatively few felt there would be widespread or serious consequences if this issue was not urgently addressed, a number of participants volunteered that the best way to tackle antibiotic resistance was simply to focus more on taking care of one's personal health and to avoid getting sick.

Others did feel that, if left unaddressed, superbugs could become more prevalent. A few raised concerns about costs to and strain on the health care system and, in particular, the vulnerability of immunocompromised and elderly people.

Participants were shown a series of actions that could be taken to help mitigate antibiotic resistance; and were asked to identify the three which they felt would have the most impact, from the list below.

1. Monitoring physicians' prescribing behaviour and working to educate physicians on better prescribing practices.
2. Instituting a practice of 'delayed prescriptions' – a delayed prescription is intended to be filled in a few days if symptoms do not improve, allowing for lab tests to come back or for a person's body to fight the infection on its own.
3. Providing patients with more information on why an antibiotic isn't being prescribed to them and what they can do instead to feel better (rest, fluids, over-the-counter pain relief medication, etc.).
4. Doing more to reduce the risk of catching an infection (e.g., washing hands before eating or preparing food, after using the washroom, after coughing or blowing your nose, staying at home when sick, etc.).
5. Using antibiotics more judiciously – only taking them when absolutely needed.
6. Using antibiotics as prescribed – talking to your healthcare provider before using antibiotics, following all treatment directions, not taking leftover antibiotics or ones that haven't been prescribed for you.
7. Asking more questions about antibiotics of our healthcare providers – are they really necessary? Is another treatment option available/better?
8. Keeping vaccinations up to date – for example, research has shown that young children who receive a pneumococcal vaccine need fewer antibiotics for ear infections than people who are not vaccinated.
9. Traveling abroad less.

Many felt that education was key and that both physicians and patients need to be better informed about the topic. A few referred to the need for a *"change in the culture of the health care system."* On balance, they felt that changes in physicians' and patients' behaviours were required in order to have any impact. The top three 'action' items (most frequently mentioned by participants across all groups) were the following:

- Providing patients with more information on why antibiotics are not being prescribed to them and what they can do themselves to feel better;
- Monitoring physicians' prescribing behaviour and educating physicians on better prescribing practices; and
- Using antibiotics more judiciously.

Participants did point out the importance of doctors as part of the solution. They emphasized the trust that most people have in physicians, particularly those with longstanding family doctors. They expect and trust that any recommendation they make is in their/their children's best interests and based on a depth of experience and extensive training. Many firmly believed that doctors need to spend more time with each patient, although they appreciated the demands on their time and felt that shortages of medical professionals were contributing factors as well. Pharmacists were also cited as having an important role to play, with a number of participants commenting that they need to be more proactive in flagging the issue of antibiotic resistance with those being prescribed an antibiotic.

Others also felt that the responsibility for this issue rests mainly with individuals, stressing that patients need to take more responsibility for their own health. They saw this as not only a matter of living a healthy lifestyle, but also asking questions of their physicians and informing themselves. At the same time, a number of participants thought it would be challenging to shift behaviours in regards to the use of antibiotics. Specifically, they commented on the desire among patients for *"rapid relief"* from uncomfortable or annoying symptoms. A few also noted that most patients may not know what questions they should be asking of their health care providers.

"We need to train ourselves not to expect instant gratification, and this is the same case with medicine. We also have to train doctors to themselves not rely on antibiotics and prescribe them a lot less."

"We are conditioned when we are young to take medicine when we are not feeling better. These practices need to shift in order for people to have better health."

Of the remaining actions that were discussed with participants, almost no one felt that traveling abroad less would make any difference. They saw little connection between antibiotic use and development of resistance to antibiotics and peoples' travel frequency or patterns. In fact, some questioned why this was among the list of possible actions that could be taken. They questioned whether this was because travelers may be more likely to fall ill while overseas in an area where there is a higher risk of being exposed to a disease which is less prevalent in Canada.

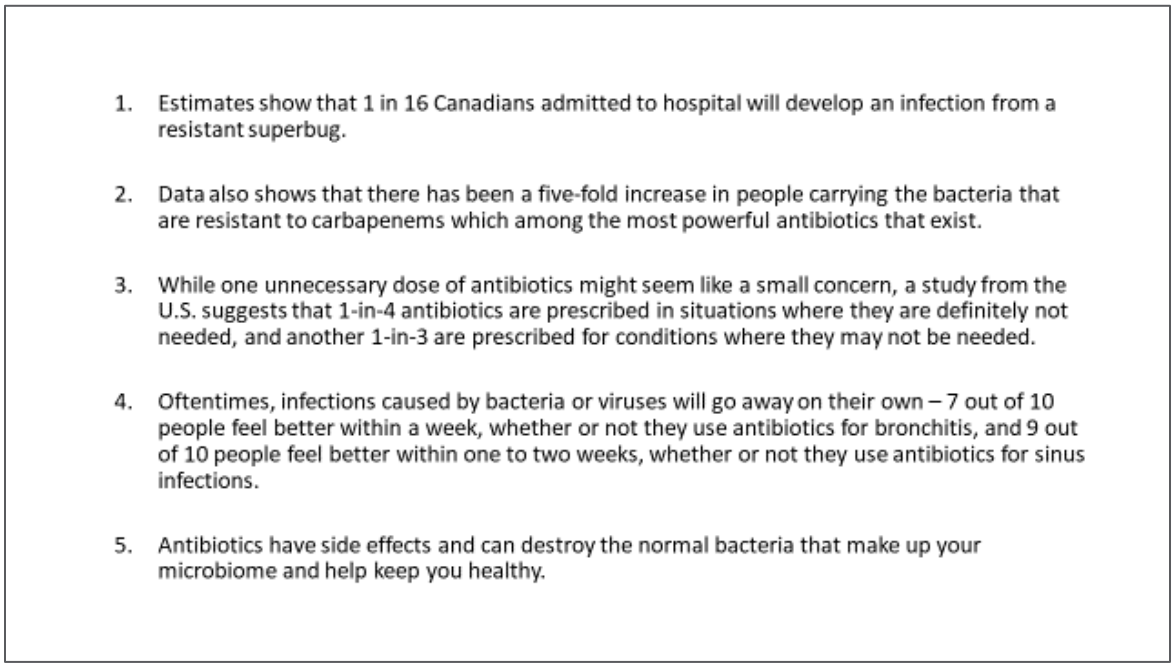
While about half as many, or fewer, participants selected the other options within their top three some did feel that using antibiotics as prescribed, instituting a practice of delayed prescriptions, and doing more to reduce the risk of catching an infection and keeping vaccinations up to date would have at least some impact. For the most part, however, many felt that they were complying with standard and recommended practice for antibiotic use – following all treatment directions, not taking leftovers and not using antibiotics prescribed for someone else. Parents with young children felt especially strongly that the best approach was to prevent infections in the first place, although a few also underscored the benefits of exposing children to some germs/bacteria in order to build up their natural immunity. The connection between keeping vaccines up to date as a means of reducing antibiotic resistance was not entirely clear to a number of participants. The sense from some participants was that vaccines could not mitigate against all types of illnesses and many felt that vaccines were developed to address specific types of viruses only. As some pointed out – *"these two things are not really related."* Others did, however, view vaccines as an important preventive action, which they felt could strengthen an individual's immune system over the long-term, although generally keeping vaccines current was not seen to be as effective as education patients, physicians, and pharmacists.

Very few participants suggested actions other than those listed, that they felt could improve the situation. Those who did were inclined to stress taking a more holistic approach to personal health, one focused on keeping one's self mentally and physically fit. They felt that a focus on health promotion and prevention of illness was perhaps the single best intervention.

There was a general consensus among participants in all groups that a public awareness campaign on the subject of antibiotics and antibiotic resistant bacteria should be considered, with a focus on the importance of taking the full course of antibiotics, for example.

4. Messaging and Information on Antibiotic Resistance

The final part of the discussion centered on what information might be helpful to educating the public about the issue of antibiotic resistance. Participants were presented with five facts and asked which, if any, resonated with them.



Many focused specifically on data which suggests that antibiotics are being prescribed fairly frequently in situations where they are not needed and that many infections are resolved without any medical intervention or the need for antibiotics. Participants particularly favoured releasing more information emphasizing the latter point (item number 4), noting that unlike the other facts discussed, it had more of a *"positive spin"* and was phrased in a more encouraging tone. Overall, participants were struck by these two facts (items number 3 and 4), in particular, believing that more people need to be informed about these issues in order to address standard patient assumptions that antibiotics will be prescribed. To the extent that information can be provided within a Canadian context (e.g., based on Canadian data), participants felt this would resonate better with the general public.

Additionally, the issue of side effects resonated with a number of participants, including the fact that antibiotics can destroy the normal bacterial that make up an individual's microbiome. Participants felt it was important to educate the broader public on how antibiotics impact both the good bacteria and those that are harmful. Finally, several were also struck by the first point that one in sixteen Canadians who are

hospitalized will develop a superbug. Some participants have heard stories about superbugs and felt that the public should know that this issue is more common than one might think.

Prior to concluding the discussion, a few participants commented that the conversation had heightened their interest in and understanding of the topic of antibiotic resistance. They remarked that the information and discussion had given them pause to reconsider how they may respond if faced with a situation in the future where antibiotics are discussed as a possible treatment option. Parents specifically voiced concern about the impact of this issue on children. Overall, a number of participants felt that patients need to be better armed with information and the types of questions they should be asking their physician in the event an antibiotic is being prescribed to them or their child.

"I will practice a little more caution in using antibiotics going forward."

"I'm especially concerned about kids. We need to emphasize more about getting better on your own without antibiotics."

VI. Detailed Methodology

Detailed Methodology

Additional information pertinent to understanding the methodologies deployed in the research study is included in this section with a particular focus on:

- The recommendations that were provided in Phase 1 to be considered in the development of the survey which was administered in Phase 2; and
- The sample design, response rates and incidence rates associated with Phase 2 of the research program, as well as results from the pre-test.

A. Recommendations Arising from Phase 1

The findings from the first phase of focus groups offered guidance on the structure, flow and content of the survey as well as the suitability of quantitative and qualitative methodologies for specific lines of inquiry.

The recommendations outlined below were not intended to override or negate the theoretical frameworks which were the basis on which the research areas of focus were determined, but rather were put forward for consideration as issues or elements to be discussed and possibly incorporated into the design of the subsequent study components.

An important consideration with respect to all of these recommendations was the length of the survey which was limited to 20 minutes. While this allowed for a fairly extensive in-depth telephone interview, the following issues were raised on the basis of the insights from the focus groups for further consideration:

- What content and questions are *necessary* in order to address all components of the theoretical frameworks in as complete a manner as possible;
- What content is deemed *useful, but not necessary*; and
- What questions may be more suitable for discussion within a qualitative setting rather than via a quantitative approach. For example, some topics or questions are better explored in a focus group setting where the discussion among participants yields richer insights to better understand the mindset, motivations, barriers and considerations, etc. of the public. The survey, by contrast, will contain mostly closed-ended questions, where a set series of response options is generally known, and the intention is to assess where the public is situated on a spectrum in terms of awareness, knowledge, understanding, attitudes, etc., rather than to explore various facets of this issue and the nuance of participants' responses. The latter is better addressed in a qualitative setting.

The recommendations offered by The Strategic Counsel based on the information and insights from the Phase 1 focus groups are outlined below, most of which were implemented in Phases 2 and 3. Some recommendations could not be accommodated within the current study, but are included here for consideration in future studies on this topic

1. Terminology and Use of Plain Language

The language level and terminology employed in the survey should be simplified where possible and questions and explanations should be written at a level (usually a Grade 8 level is recommended) which ensures that most respondents will readily comprehend the information being read by a telephone interviewer.

The focus group discussions readily illustrated the generally low level of literacy on this topic. While most participants were familiar with the terms antibiotics, antibiotic resistance and superbugs, the terms antimicrobial resistance, AMR and drug resistance were less well known. This was consistent with the results of other surveys, such as the WHO Antibiotic Resistance Multi-Country Public Awareness Survey which also found that respondents were more likely to have heard of the terms 'antibiotic resistance, 'drug resistance' and 'antibiotic-resistant bacteria' compared to 'superbugs,' 'antimicrobial resistance' and 'AMR.'

Given the breadth of issues being explored in Phase 2, TSC recommended only a short series of questions to gauge benchmark levels of public familiarity with each of the various terms.

For purposes of the survey, it was also recommended that the terms antibiotic and antibiotic resistance should be employed consistently throughout. Telephone interviewers could provide a short explanation to clarify the meaning of antibiotic resistance, once respondents had been asked to rate their level of awareness or familiarity with the issue. This would approach ensured that all respondents would have the same understanding on any subsequent questions on this topic.

2. Measuring the Impact of Information and Education

It was clear from these focus groups that most participants felt they had learned something about antibiotic resistance over the course of the 90-minute discussion. Many left feeling more informed than they were when they arrived. And, for some, the conversation had shifted their thinking in ways that could have an impact on their attitudes as well as their/their family's behaviours in relation to antibiotic use in the future.

While focus groups offered some insights into what information may have contributed to changing participants' views (i.e., mention of WHO, factors contributing to AMR, etc.), the survey offered an opportunity to measure the impact of specific messaging and/or the credibility of organizations and spokespersons on respondent views through the application of advanced statistical analysis (i.e., regression and driver analysis). The output of this type of exercise would indicate what information has higher/lower/no impact and would be of value to decision-makers and communicators. The survey was structured to facilitate this type of analysis if deemed useful by Health Canada and the Public Health Agency of Canada.

3. Additional Considerations for Survey Content

The survey was designed based on two theoretical frameworks, referred to earlier in this document. Findings from these focus groups suggested opportunities to explore certain areas in greater depth or to expand the scope to include other areas as well, either through the survey or in the follow-up focus groups. The following were also recommended as questions or topic areas for consideration in Phases 2 and 3:

- Understanding levels of concern about the issue of antibiotic resistance relative to other global issues – health-related or otherwise. Findings from these discussions suggested that the public may prioritize other issues for various reasons (awareness, understanding, etc.), and that it would be useful to gauge where this issue stands relative to others that may be more top-of-mind;
- General attitudes towards antibiotics – whether the public views them as having positive/negative health effects overall. Based on comments from the focus groups it was evident that some sub-groups of the population avoid antibiotics or prescription medications although not necessarily out of concern for the issue of antibiotic resistance. Their views on antibiotics may be more reflective of their overall approach to health, infection and disease prevention.
- Use of antibiotics, including frequency – in line with the above topic regarding general attitudes towards antibiotics, it was recommended to assess current/recent usage of antibiotics, along with some measure of frequency. While some surveys collect only basic information on antibiotic use (i.e., when did you last take antibiotics), it was felt that this may be insufficient to understanding and developing a profile of those who tend to be higher or lower users of antibiotics, the former being a priority from a health and communications standpoint. The suggestion was made to consider developing a profile of 'users' based on frequency of use as well as other demographic characteristics, general attitudes towards antibiotics, awareness, knowledge and understanding of AMR, credibility of spokespersons, etc. Although this was not possible within the scope of the current study, it was felt that this should be considered in any future research on this topic as a more complete portrait or segmentation of the public would permit more targeted approaches to communications.
- Probing on the perceived consequences and severity of antibiotic resistance/antimicrobial resistance was recommended. Focus group participants appeared unaware of the extent and impact of this issue, particularly on a global scale. It may be helpful to gauge this in the survey.
- The relative importance of factors contributing to the issue and options for addressing AMR. Again, findings from the focus groups showed minimal understanding of the full slate of contributors to AMR. TSC recommended assessing the extent to which the public feels this is an issue of overuse versus over-prescription and/or whether the issues have more to do with those living outside of Canada, the agricultural sector, etc. in either or both of Phases 2 and 3. The responses to these questions are useful in crafting communications strategies which address key knowledge gaps and misperceptions and underpin the degree to which the public views this as an issue over which they personally have some control or whether they believe others are more responsible/more in control.
- Credibility of various spokespersons on the topic, including various health organizations, experts, etc. This was explored in a fairly superficial fashion in the focus groups, but there was some indication that organizations such as the WHO do carry significant weight. As such, a more detailed exploration was recommended to shed some light on the most effective conduits for messaging on this topic.

In the demographic section of the questionnaire, in addition to the standard questions capturing gender, age, level of education, household income, employment status and/or occupation, the following were recommended for inclusion either in this study or in future research on this topic:

- Self-assessed health status –Focus group participants' views on the topic of AMR were, in some cases, a factor of their perceptions of their own health status. Those with chronic health issues or a specific condition which may put them at higher risk of developing AMR may or may not hold different attitudes.
- Ethnicity and travel patterns (outside Canada) – The Phase 1 focus groups revealed that attitudes towards the purchase and use of antibiotics varied based on ethno-cultural background. Additionally, mention was made among those who travel overseas of the ease with which one can purchase antibiotics in some parts of the world. Including questions on ethnicity and travel patterns (which are in some cases interconnected) helps to illuminate the extent to which attitudes and behaviours vary on this basis.
- Marital status – Comments from focus group participants suggested that women and men may use, store and dispose of antibiotics in different ways. While the survey did assess gender-based differences, qualitative research underscored that those residing with a partner were directly affected by the attitudes and behaviours of that partner. As such, TSC recommended inclusion of a question to better understand these implications.
- Household composition – The size of household, including number/age of children and whether or not the respondent is caring for an elderly family member was found to have some impact on views on this topic.
- Community size – Clear differences in views between the groups held in North Battleford and those undertaken in Ottawa were noted. For this reason, TSC recommended capturing some measure(s) of community size:
    - Postal code
    - Question on size of community, in terms of population
    - Question on type of community, specifically asking the respondent to categorize their community as urban, suburban, or rural

B. Additional Information on the Phase 2 Methodology

A 19-minute survey of n=1515 Canadians (nationwide), aged 18 years and older was conducted by telephone.

1. Sample Design

A disproportionate sample design (by region/province/territory) was employed as shown in the following table to ensure sufficient representation from regions with smaller populations. Following completion of the survey, minimal weighting was applied to bring the final survey sample of n=1,500 into line with the distribution of the Canadian adult population by region as shown in the second column below.

Sample Design (Regional Distribution)

REGION	% OF POPULATION	PROPOR-TIONATE SAMPLE	DISPROPOR-TIONATE SAMPLE	MOE (+/-)*
Atlantic	7% NFLD 2% PEI <1% Halifax CMA 1% Balance NS 2% NB 2%	105	100	9.8
Quebec	23% Montreal CMA 12% Balance QUE 11%	345	350	5.24
Ontario	38% Ottawa CMA 3% Toronto CMA 18% Balance ON 17%	570	500	4.38
Manitoba	3% Winnipeg CMA 2% Balance MB 1%	45	100	9.8
Saskatchewan	4%	60	100	9.8
Alberta	11% Edmonton CMA 4% Calgary CMA 4% Balance AB 3%	165	150	8
British Columbia	14% Vancouver CMA 7% Balance BC 7%	210	200	6.93
TOTAL	**100**	**1500**	**1500**	**2.53**

*This column shows the theoretical margin of error, plus or minus in percentage points, 95% of the time, on questions where opinion is evenly split.

The disproportionate regional sample design permitted robust regional analysis, with a minimum of n=100 in each region and by sub-groups, including:

- Marital status
- Size of household and number of children (under 18)
- Educational attainment
- Ethnicity

Quotas were also set to ensure that the final sample obtained a roughly equal distribution of men and women and of the population by age, as shown below.

Sample Design (Distribution by Gender and Age)

Gender	**%**
Male	50
Female	50
Age	**%**
18-24	11
25-34	16
35-44	16
45-54	18
55-64	17
65+	21

The sample included both landline and cell phone numbers in a 40/60 split, respectively. The combination landline/cell phone approach was undertaken to ensure adequate reflection of the increasing number of households which are cell phone only. All active residential landline telephone numbers are located on known phone blocks and are given an equal chance of being selected, and selection was done by generating sets of random numbers and was non-systematic.

As part of the screening criteria, the first three alpha numeric of the respondent's postal code was requested. A simple program, as part of the Computer Assisted Telephone Interviewing (CATI) system automatically assigned the respondent to a region which ensured that regional quotas were met. This approach also ensured geographical accuracy, given that many mobile phone numbers are assigned to rate centers that may not actually reflect the region in which the mobile owner resides.

It should be noted that there are a number of issues and/or challenges to consider when incorporating a cell phone sample:

- Differential response rates – while dialing mobile phone numbers means there tend to be fewer calls that go to voice mail or answering machines, they also tend to result in a higher rate of refusals. As such, a higher volume of cell phone numbers when completing the mobile part of the sample is drawn to compensate for this.

- Survey protocols – while not always the case, mobile phone users may be reached in a setting (i.e., driving) where it is inconvenient (or possibly illegal if they do not have a hands-free set-up) for the respondent to complete the survey at the time of the call. In this instance, interviewers requested a convenient time to call and arrange a call-back.

2. Pre-test

Following the Government of Canada's Standards for Public Opinion Research for Telephone Surveys a pre-test was undertaken on December 7th, 2021, prior to launching the survey. The survey was pre-tested among n=20 respondents in a soft launch (10 in English and 10 in French) prior to running live.

Overall, the findings from the pre-test were positive. The vast majority of respondents surveyed agreed, either somewhat or strongly, that:

- The questions asked were straightforward and easy to understand (95%);
- The survey was easy to complete (90%); and
- The length of the survey was reasonable (85%).

Moreover, most agreed the topic was interesting (90%). Most also felt they had learned something from the survey (60%).

Based on the 20 completes from the pre-test, the survey length was anywhere between 18 and 22 minutes, with an average length of 21 minutes. This was roughly in the range that The Strategic Counsel had estimated based on the final, approved survey and we anticipated that the length would come down slightly as interviewers became more familiar with the survey instrument. Additionally, we recommended several minor adjustments to the questionnaire to assist in managing survey length, increase efficiency of the interview process and improve the clarity of certain questions. This involved combining two questions to eliminate redundancy. It also included adding a prompt to interviewers on two questions to read all the items listed one at a time, accept a 'yes/no' response for each and then as if respondents had any other items to add. These items would then be included as 'other, specify' responses. This avoided the need for interviewers to have to repeat reading these lists. Finally, a slight change was made to the wording of one question to ease respondent interpretation.

3. Length of Survey

Following the pre-test, the fieldwork for this survey was conducted from December 10th, 2021 to January 7th, 2022. On average, the survey took 19 minutes to complete but ran anywhere between 10 and 54 minutes in length.

4. Response Rates/Incidence Rates

In total 1,515 respondents completed the survey, with an incidence rate of 99.62%.

The survey resulted in an overall response rate of 2.77%, which has been calculated according to the Empirical Method formula of R / (U + IS + R), as follows:

The number of in scope responding (R) participants (completed, disqualified, and over-quota respondents) **= 1,583**

DIVIDED BY

The sum of the unresolved (U) numbers (44,436), the in scope non-responding (IS) participants (11,283) + the in scope responding (R) participants (1,583) **= 2.77%**

VII. Appendix: Recruiting Scripts, Moderator's Guides, Telephone Survey

Appendix

A. Phase 1 Research Instruments

Health Canada/ Public Health Agency of Canada
Antimicrobial Resistance – Phase 1
FINAL Recruiting Script (July 3 2019)

INTRODUCTION

Hello, my name is **[INSERT RECRUITER NAME]**. I'm calling from The Strategic Counsel, on behalf of the Government of Canada. We are a national public opinion research firm organizing a series of focus group discussions to explore issues related to the health of Canadians.

The format is a "round table" discussion, led by an experienced moderator. Participants will be given a cash honorarium in appreciation of your time.

Your participation is completely voluntary and all your answers will be kept confidential. We are only interested in hearing your opinions - no attempt will be made to sell or market you anything. Findings from these discussions will be compiled and a report will be produced and submitted to Health Canada. Once the report has been finalized, it is submitted to the Library and Archives of Canada. These reports are available to the public and can be accessed online. Records from this study will be destroyed after completion of the project.

[ONLY READ IF ASKED ABOUT PRIVACY]: Your personal information will be collected, used, retained and disclosed by **[NAME OF RECRUITER]** and The Strategic Counsel in accordance with the applicable provincial privacy legislation and the Personal Information Protection and Electronic Documents Act (PIPEDA). The information collected through the research is subject to the provisions of the Privacy Act, legislation of the Government of Canada, and to the provisions of relevant provincial privacy legislation. You have the right to file a complaint with the Privacy Commissioner of Canada if you think personal information has been handled improperly. 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 our privacy practices, please contact Health Canada's Privacy Coordinator at 613-948-1219 or privacy-vie.privee@hc-sc.gc.ca.

But before we invite you to attend, we need to ask you a few questions to ensure that we get a good mix/variety of people in each of the groups. May I ask you a few questions?

Yes	**CONTINUE**
No	**THANK AND END**

RECORD LANGUAGE. DO NOT ASK.

English	**CONTINUE**
French	**CONTINUE GROUP 3 OR 4 (OTTAWA ONLY)**

SCREENING QUESTIONS

1. Have you, or has anyone in your household, worked for any of the following types of organizations in the last 5 years?

A market research firm	**THANK AND END**
A marketing, branding or advertising agency	**THANK AND END**
A magazine or newspaper	**THANK AND END**
For the Government of Canada	**THANK AND END**
In public/media relations	**THANK AND END**
In radio/television	**THANK AND END**
No, none of the above	**CONTINUE**

2. Gender: **DO NOT ASK. RECORD BY OBSERVATION.**

Female	**CONTINUE GROUP 1, 3 0R 5**
Male	**CONTINUE GROUP 2, 4, OR 6**

3. Would you be willing to tell me in which of the following age categories you belong?

Under 18 years of age	**IF POSSIBLE, ASK FOR SOMEONE OVER 18 AND REINTRODUCE. OTHERWISE THANK AND END.**
18-24	**CONTINUE GROUP 1, 4 0R 5**
25-34	
35-44	
45-54	**CONTINUE GROUP 2, 3 0R 6**
55+	
VOLUNTEERED Prefer not to answer	**THANK AND END**

ENSURE A GOOD MIX OF AGES WITHIN EACH SUBGROUP (18-44 AND 45+)

4. In which City do you reside?

Ottawa	**+ ENGLISH + FEMALE + 18-44 = GROUP 1** **+ ENGLISH + MALE + 45 AND OLDER = GROUP 2** **+ FRENCH + FEMALE + 45 AND OLDER = GROUP 3** **+ FRENCH + MALE + 18-44 = GROUP 4** **OTHERWISE THANK AND END**
North Battleford	**+ ENGLISH + FEMALE + 18-44 = GROUP 5** **+ ENGLISH + MALE + 45 AND OLDER = GROUP 6** **OTHERWISE THANK AND END**
Other	**THANK AND END**
VOLUNTEERED Prefer not to answer	**THANK AND END**

5. Have you ever attended a focus group discussion, an interview or survey which was arranged in advance and for which you received a sum of money?

   Yes **CONTINUE**
   No **SKIP TO Q.9**

6. How long ago was the last focus group you attended?

   Less than 6 months ago **THANK AND END**
   More than 6 months ago **CONTINUE**

7. How many focus group discussions have you attended in the past 5 years?

   0-4 groups **CONTINUE**
   5 or more groups **THANK AND END**

8. And on what topics were they?
   TERMINATE IF ANY ON ANTIMICROBIAL RESISTANCE.

ADDITIONAL RECRUITING CRITERIA

Now we have just a few final questions before we give you the details of the focus group, including the time, date, and location.

9. What is your marital status?

   Single/Widowed/Divorced/Separated
   Married/Common-Law
   ENSURE A GOOD MIX.

10. Do you have any children, under the age of 18?

    Yes **CONTINUE**
    No **SKIP TO Q.12**

    ENSURE A GOOD MIX OF THOSE WITH CHILDREN AND WITHOUT.

11. What are the ages of your children?

Child	Age
1	
2	
3	
4	

AMONG THOSE WITH CHILDREN, ENSURE A GOOD MIX OF THOSE WITH YOUNGER AND OLDER CHILDREN.

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

    Grade 8 or less
    Some high school
    High school diploma or equivalent
    Registered Apprenticeship or other trades certificate or diploma
    College, CEGEP or other non-university certificate or diploma
    University certificate or diploma below bachelor's level
    Bachelor's degree
    Post graduate degree above bachelor's level
    VOLUNTEERED Prefer not to answer

    ENSURE A GOOD MIX.

13. Which of the following categories best describes your current employment status? Are you… **[Read list - accept one answer only]**

    Working full-time, that is, 35 or more hours per week?
    Working part-time, that is, less than 35 hours per week?
    Self-employed?
    Unemployed, but looking for work?
    A student attending school full-time?
    Retired?
    Not in the workforce? [Full-time homemaker, unemployed, not looking for work]
    VOLUNTEERED Other – [Do not specify]

    VOLUNTEERED Prefer not to answer
    ENSURE A GOOD MIX. STUDENTS/UNEMPLOYED/NOT IN WORKFORCE/RETIRED PERSONS SHOULD NOT COMPRISE MORE THAN 3 PARTICIPANTS PER GROUP TOTAL.

14. Which of the following categories best describes your total household income? That is, the total income of all persons in your household combined, before taxes?

    Under $20,000
    $20,000 to just under $40,000
    $40,000 to just under $60,000
    $60,000 to just under $80,000
    $80,000 to just under $100,000
    $100,000 to just under $150,000
    $150,000 and above
    VOLUNTEERED Prefer not to answer
    ENSURE A GOOD MIX.

15. Can you please tell me how would you describe your ethnicity?

    African
    Arab
    Canadian
    Caribbean

Chinese
European
Other East/Southeast Asian (e.g. Filipino, Korean, Japanese)
French
Indigenous
Latin/Central/South American
South Asian/East Indian (i.e., Pakistani, Punjabi, East Indian, Tamil)
Other (specify)

VOLUNTEERED Prefer not to answer
ENSURE A GOOD MIX.

16. **ONLY ASK NORTH BATTLEFORD RESIDENTS:** Do you identify as …
First Nations (status or non-status)
Métis
Inuit (Inuk)
None of the above
ENSURE A MINIMUM OF 2 INDIGENOUS PARTICIPANTS PER GROUP IN NORTH BATTLEFORD.

17. If you won a million dollars what would be the first two things you would do with the money?
MUST HAVE TWO RESPONSES TO ACCEPT. TERMINATE IF PARTICIPANT RESPONDS IN A FLIPPANT MANNER, REFUSES TO ANSWER OR EXHIBITS DIFFICULTY IN RESPONDING.

18. During the discussion, you could be asked to look at materials that are pinned up on a wall and to read handouts or other materials in print. You will also be asked to actively participate in a conversation about these materials. Can you think of any reason why you may have difficulty reading the materials or participating in the discussion? You may also be asked to write down a few thoughts on paper. Are you comfortable writing in (English/French)? TERMINATE IF RESPONDENT OFFERS ANY REASON SUCH AS SIGHT OR HEARING PROBLEM, A WRITTEN OR VERBAL LANGUAGE PROBLEM, A CONCERN WITH NOT BEING ABLE TO COMMUNICATE EFFECTIVELY OR IF YOU AS THE INTERVIEWER HAVE A CONCERN ABOUT THE PARTICIPANT'S ABILITY TO PARTICIPATE EFFECTIVELY.

19. The focus group discussion will be audio-taped and video-taped for research purposes only. Do you consent to being audio-taped and video-taped?

Yes
No **THANK AND END**

20. The report that will be prepared based on the discussions may contain anonymous quotations from participants. These quotations will not identify you, but may include comments that you made during the discussion. Do you consent to being quoted anonymously in the report that will be prepared following the groups?

Yes
No **THANK AND END**

THE
STRATEGIC
COUNSEL

INVITATION

I would like to invite you to this focus group discussion, which will take place the evening of [INSERT DATE/TIME BASED ON GROUP # IN CHART ON PAGE 1]. The group will be 90 minutes and you will receive $90 for your participation. Would you be willing to attend?

Yes	**CONTINUE**
No	**THANK AND END**

The group will be held at:

[INSERT LOCATION]

We will be calling you back to verify the information given and will confirm this appointment the day before. May I please have your full name, a telephone number that is best to reach you at as well as your e-mail address if you have one so that I can send you the details for the group?

Name:
Telephone Number:
E-mail Address:

This is a firm commitment. If you anticipate anything preventing you from attending (either home or work-related), please let me know now and we will keep your name for a future study. If for any reason you are unable to attend, please let us know as soon as possible at [1-800-xxx-xxxx] so we can find a replacement.

We ask that you arrive 10-15 minutes prior to the beginning of the session and identify yourself to our staff who will gladly welcome you. Please bring photo identification with you, so that we make sure only people who have been invited participate in the group.

You may be required to view some material during the course of the discussion. If you require glasses to do so, please be sure to have them handy at the time of the group.

Thank you very much for your time.

RECRUITED BY: _____
DATE RECRUITED: _____

THE STRATEGIC COUNSEL

Santé Canada et Agence de la santé publique du Canada
Résistance aux antimicrobiens — Phase 1
Questionnaire de recrutement, version finale (4 juillet 2019)

INTRODUCTION

Bonjour, je m'appelle **[NOM DU RECRUTEUR]**. Je vous téléphone du Strategic Counsel pour le compte du gouvernement du Canada. Nous sommes une société canadienne de recherche sur l'opinion publique et nous organisons une série de groupes de discussion en vue d'explorer des questions touchant à la santé des Canadiens.

La rencontre prendra la forme d'une table ronde animée par un modérateur expérimenté. Les participants recevront un montant d'argent en remerciement de leur temps.

Votre participation est entièrement volontaire et toutes vos réponses seront confidentielles. Nous aimerions simplement connaître vos opinions : personne n'essaiera de vous vendre quoi que ce soit ou de promouvoir des produits. Les résultats des discussions seront compilés dans un rapport remis à Santé Canada. Une fois le rapport terminé, il sera envoyé à Bibliothèque et Archives Canada. Il sera alors accessible au public et consultable en ligne. Les enregistrements associés à cette étude seront détruits à la fin du projet.

[LIRE UNIQUEMENT EN CAS DE QUESTION SUR LA PROTECTION DE LA VIE PRIVÉE] : La collecte, l'utilisation, la conservation et la communication de vos renseignements personnels par **[NOM DU RECRUTEUR]** et The Strategic Counsel auront lieu conformément aux lois provinciales applicables sur la protection de la vie privée et à la *Loi sur la protection des renseignements personnels et les documents électroniques* (LPRPDE). L'information recueillie dans le cadre de cette étude est assujettie aux dispositions de la *Loi sur la protection des renseignements personnels*, des lois du gouvernement du Canada et des lois provinciales applicables sur la protection de la vie privée. Vous avez le droit de déposer une plainte auprès du Commissariat à la protection de la vie privée du Canada si vous estimez que des renseignements personnels ont été traités d'une manière inappropriée. En plus de protéger vos renseignements personnels, la *Loi sur la protection des renseignements personnels* vous donne le droit de demander l'accès à ces renseignements ainsi que leur correction, le cas échéant. Pour plus d'information sur nos pratiques en matière de protection de la vie privée, veuillez appeler le coordonnateur de la protection des renseignements personnels de Santé Canada au 613-948-1219 ou lui écrire à privacy-vie.privee@hc-sc.gc.ca.

Avant de vous inviter à participer, je dois vous poser quelques questions qui nous permettront de former des groupes suffisamment diversifiés. Puis-je vous poser quelques questions?

Oui **CONTINUER**
Non **REMERCIER ET CONCLURE**

NOTER LA LANGUE. NE PAS DEMANDER.

Anglais **CONTINUER**
Français **CONTINUER GROUPE 3 OU 4 (OTTAWA SEULEMENT)**

QUESTIONS DE SÉLECTION

1. Est-ce que vous ou une personne de votre ménage avez travaillé pour l'un des types d'organisations suivants au cours des cinq dernières années?

Une société d'études de marché	**REMERCIER ET CONCLURE**
Une agence de commercialisation, de marque ou de publicité	**REMERCIER ET CONCLURE**
Un magazine ou un journal	**REMERCIER ET CONCLURE**
Pour le gouvernement du Canada	**REMERCIER ET CONCLURE**
Dans les relations publiques ou les relations avec les médias	**REMERCIER ET CONCLURE**
Dans le milieu de la radio ou de la télévision	**REMERCIER ET CONCLURE**
Non, aucune de ces réponses	**CONTINUER**

2. Sexe : **NE PAS DEMANDER. NOTER SELON VOTRE OBSERVATION.**

Femme	**CONTINUER GROUPES 1, 3 OU 5**
Homme	**CONTINUER GROUPES 2, 4 OU 6**

3. Seriez-vous prêt/prête à m'indiquer votre tranche d'âge dans la liste suivante?

Moins de 18 ans	**SI POSSIBLE, DEMANDER À PARLER À UNE PERSONNE DE 18 ANS OU PLUS ET REFAIRE L'INTRODUCTION. SINON, REMERCIER ET CONCLURE**
18 à 24 ans	**CONTINUER GROUPES 1, 4 OU 5**
25 à 34 ans	
35 à 44 ans	
45 à 54 ans	**CONTINUER GROUPES 2, 3 OU 6**
55 ans ou plus	
RÉPONSE SPONTANÉE Préfère ne pas répondre	**REMERCIER ET CONCLURE**

ASSURER UNE BONNE REPRÉSENTATION DES ÂGES DANS CHAQUE SOUS-GROUPE (18-44 ANS, 45 ANS ET PLUS)

4. Dans quelle ville habitez-vous?

Ottawa	**+ ANGLAIS + FEMME + 18-44 ANS = GROUPE 1** **+ ANGLAIS + HOMME + 45 ANS ET PLUS = GROUPE 2** **+ FRANÇAIS + FEMME + 45 ANS ET PLUS = GROUPE 3** **+ FRANÇAIS + HOMME + 18-44 ANS = GROUPE 4** **SINON, REMERCIER ET CONCLURE**
North Battleford	**+ ANGLAIS + FEMME + 18-44 ANS = GROUPE 5** **+ ANGLAIS + HOMME + 45 ANS ET PLUS = GROUPE 6** **SINON, REMERCIER ET CONCLURE**
Autres villes	**REMERCIER ET CONCLURE**
RÉPONSE SPONTANÉE Préfère ne pas répondre	**REMERCIER ET CONCLURE**

5. Avez-vous déjà participé à un groupe de discussion, à une entrevue ou à un sondage organisé à l'avance en contrepartie d'une somme d'argent?

   Oui **CONTINUER**
   Non **PASSER À LA Q.9**

6. À quand remonte le dernier groupe de discussion auquel vous avez participé?

À moins de six mois **REMERCIER ET CONCLURE**
À plus de six mois **CONTINUER**

7. À combien de groupes de discussion avez-vous participé au cours des cinq dernières années?

0 à 4 groupes **CONTINUER**
5 groupes ou plus **REMERCIER ET CONCLURE**

8. Sur quels sujets portaient-ils?

METTRE FIN À L'ENTRETIEN SI LES SUJETS TOUCHAIENT À LA RÉSISTANCE AUX ANTIMICROBIENS.

CRITÈRES DE RECRUTEMENT SUPPLÉMENTAIRES :

Il me reste quelques dernières questions avant de vous donner les détails du groupe de discussion, comme l'heure, la date et le lieu.

9. Quel est votre état matrimonial?

Célibataire / Veuf, veuve / Divorcé(e) / Séparé(e)
Marié(e) / Conjoint(e) de fait
ASSURER UN BON MÉLANGE.

10. Avez-vous des enfants âgés de moins de 18 ans?

Oui **CONTINUER**
Non **PASSER À LA Q.12**

ASSURER UN BON ÉQUILIBRE ENTRE LES RÉPONDANTS QUI ONT DES ENFANTS ET CEUX QUI N'EN ONT PAS.

11. Quel âge ont vos enfants?

Enfant	Âge
1	
2	
3	
4	

ASSURER UN BON ÉQUILIBRE ENTRE LES PARENTS DE JEUNES ENFANTS ET D'ENFANTS PLUS ÂGÉS.

12. Quel est le niveau de scolarité le plus élevé que vous avez atteint?

École primaire
Études secondaires partielles
Diplôme d'études secondaires ou l'équivalent
Certificat ou diplôme d'apprenti inscrit ou d'une école de métiers
Certificat ou diplôme d'un collège, cégep ou autre établissement non universitaire
Certificat ou diplôme universitaire inférieur au baccalauréat
Baccalauréat
Diplôme d'études supérieur au baccalauréat
RÉPONSE SPONTANÉE Préfère ne pas répondre

ASSURER UN BON MÉLANGE.

13. Laquelle des catégories suivantes décrit le mieux votre situation d'emploi actuelle? **(LIRE LA LISTE – ACCEPTER UNE SEULE RÉPONSE)**

Emploi à temps plein, soit 35 heures ou plus par semaine?
Emploi à temps partiel, soit moins de 35 heures par semaine?
Travail autonome?
Sans emploi, mais à la recherche d'un emploi?
Aux études à temps plein?
À la retraite?
Pas sur le marché du travail? [personne au foyer à temps plein, sans emploi et ne cherchant pas d'emploi]
RÉPONSE SPONTANÉE Autre situation — [ne pas préciser]

RÉPONSE SPONTANÉE Préfère ne pas répondre
ASSURER UN BON MÉLANGE. DANS CHAQUE GROUPE, MAXIMUM DE TROIS PERSONNES EN TOUT QUI SONT AUX ÉTUDES, SANS EMPLOI, PAS SUR LE MARCHÉ DU TRAVAIL OU À LA RETRAITE.

14. Laquelle des catégories suivantes décrit le mieux le revenu annuel total de votre ménage — c'est-à-dire le revenu cumulatif de tous les membres de votre ménage avant impôt?

Moins de 20 000 $
20 000 $ à moins de 40 000 $
40 000 $ à moins de 60 000 $
60 000 $ à moins de 80 000 $
80 000 $ à moins de 100 000 $
100 000 $ à moins de 150 000 $
150 000 $ ou plus
RÉPONSE SPONTANÉE Préfère ne pas répondre
ASSURER UN BON MÉLANGE.

15. Pouvez-vous me dire comment vous décririez votre appartenance ethnique?

Africaine
Arabe
Autochtone

Canadienne
Canadienne-française
Caraïbéenne
Chinoise
Est-asiatique ou sud-est asiatique (p. ex. : philippine, coréenne, japonaise)
Européenne
Latino-américaine, centraméricaine ou sud-américaine
Sud-asiatique ou indienne d'Asie (p. ex. : pakistanaise, punjabi, indienne d'Asie, tamoule)
Autre appartenance (préciser)

RÉPONSE SPONTANÉE Préfère ne pas répondre
ASSURER UN BON MÉLANGE.

16. **POSER CETTE QUESTION UNIQUEMENT AUX RÉSIDENTS DE NORTH BATTLEFORD :** Vous définissez-vous comme…

Membre des Premières Nations (inscrit ou non inscrit)
Métis
Inuit (Inuk)
Aucune des réponses qui précèdent
RECRUTER AU MOINS DEUX PARTICIPANTS AUTOCHTONES DANS CHAQUE GROUPE DE NORTH BATTLEFORD.

17. Si vous remportiez un million de dollars, quelles sont les deux premières choses que vous feriez avec cet argent?
    DOIT DONNER DEUX RÉPONSES POUR ÊTRE ACCEPTÉ. CONCLURE L'ENTRETIEN SI LA PERSONNE DÉMONTRE PEU DE SÉRIEUX, REFUSE DE RÉPONDRE OU A DE LA DIFFICULTÉ À RÉPONDRE.

18. Au cours de la discussion, vous pourriez devoir examiner du matériel affiché au mur et lire de la documentation imprimée. On vous demandera également de participer activement aux discussions portant sur ce matériel. Pensez-vous avoir de la difficulté, pour une raison ou une autre, à lire les documents ou à participer à la discussion? On pourrait aussi vous demander de noter quelques réflexions sur papier. Êtes-vous à l'aise pour écrire (en français/en anglais)?
    CONCLURE L'ENTRETIEN SI LE RÉPONDANT SIGNALE UN PROBLÈME DE VISION OU D'AUDITION, UN PROBLÈME DE LANGUE PARLÉE OU ÉCRITE, S'IL CRAINT DE NE POUVOIR COMMUNIQUER EFFICACEMENT, OU SI VOUS, EN TANT QU'INTERVIEWEUR, AVEZ DES DOUTES QUANT À SA CAPACITÉ DE PARTICIPER EFFICACEMENT AUX DISCUSSIONS.

19. La discussion sera enregistrée sur bandes audio et vidéo, strictement aux fins de la recherche. Est-ce que vous consentez à être enregistré(e) sur bandes audio et vidéo?

Oui
Non **REMERCIER ET CONCLURE**

20. Le rapport qui sera préparé à partir des discussions pourrait contenir des citations anonymes provenant des participants. Ces citations ne vous nommeront pas, mais elles pourraient contenir des commentaires que vous avez faits durant la discussion. Est-ce que vous consentez à être cité(e) de façon anonyme dans le rapport qui sera préparé à la suite des discussions?

Oui
Non **REMERCIER ET CONCLURE**

INVITATION

J'aimerais vous inviter à ce groupe de discussion, qui aura lieu le [DONNER LA DATE ET L'HEURE EN FONCTION DU N^{O} DE GROUPE INDIQUÉ DANS LE TABLEAU, PAGE 1]. La rencontre durera 90 minutes et vous recevrez 90 $ pour votre participation. Est-ce que vous accepteriez de participer?

Oui	**CONTINUER**
Non	**REMERCIER ET CONCLURE**

Le groupe de discussion aura lieu à :

[DONNER L'ADRESSE]

Nous vous rappellerons la veille de la rencontre pour confirmer le rendez-vous et les renseignements fournis. Puis-je avoir votre nom complet, le numéro de téléphone où vous êtes le plus facile à joindre et votre adresse électronique, si vous en avez une, pour vous envoyer tous les détails?

Nom :
Numéro de téléphone :
Courriel :

Ce rendez-vous est un engagement ferme. Si vous pensez ne pas pouvoir être présent(e) pour des raisons personnelles ou professionnelles, veuillez m'en aviser dès maintenant et nous conserverons votre nom pour une étude ultérieure. Enfin, si jamais vous n'êtes pas en mesure de participer, veuillez nous prévenir le plus rapidement possible au [1-800-xxx-xxxx] pour que nous puissions trouver un remplaçant.

Nous vous prions d'être sur les lieux au moins dix à quinze minutes avant le début de la rencontre et de vous présenter à notre personnel, qui se fera un plaisir de vous accueillir. Apportez une pièce d'identité avec photo; cela nous permettra de vérifier que seules les personnes invitées participent au groupe.

Vous pourriez devoir examiner des documents durant la rencontre. Si vous devez porter des lunettes de lecture, assurez-vous de les avoir avec vous le soir de la discussion.

Merci de votre temps.

RECRUTEMENT FAIT PAR : _____

DATE DU RECRUTEMENT : _____

MODERATOR'S GUIDE – AMR
FINAL (JULY 11, 2019)

INTRODUCTION (5 MINUTES)

- Welcome participants/introduction of moderator
- Explain sponsor and purpose of groups – groups being undertaken on behalf of the Government of Canada (Health Canada/Public Health Agency of Canada) to explore issues relating to the health of Canadians. Specifically, the focus of this discussion is on attitudes towards and use of certain prescription medications.
- Explain room/video-conference set-up and confidentiality provisions:
    - Videotaping/recording and two-way mirror
    - Confidentiality – no attribution of comments to participants
    - Use of first names only, participants' names will not appear in any report
- Explain the format of discussion
    - Free flowing discussion - looking for open, honest responses to questions, not necessarily consensus
    - Discussion will last the full 90 minutes
    - Moderator does not work for Health Canada, the Public Health Agency of Canada or for any company/agency within the healthcare or pharmaceutical sector
- Brief roundtable introductions – tell us a little bit about yourself. It would be of interest to know if any of you, or your immediate family, have had any training as health professionals and/or have worked in the health sector. And, if so, in what capacity?
- Please note that throughout the discussion I will mostly be asking you to respond to questions your own experience, but we may also want to get a sense of practices within your household and/or with respect to others you are caring for.

AWARENESS AND KNOWLEDGE OF ANTIBIOTICS (25 MINUTES)

- Let's start with a fairly broad question. Where do you typically get information about health and medicines from? Probe for:
    - Health professionals
    - Government/public health agencies
    - Online/social media (what sources specifically?)
    - Family members
    - Other influencers (specify)
- Specifically, I want to ask you about antibiotics. What comes to mind when I use the term antibiotics – what do you associate with that term, including words, phrases, names, images, colours, or feelings, etc.? Please take a moment to write down your first thoughts. **MODERATOR TO ASK EACH PARTICIPANT TO SHARE WHAT THEY HAVE WRITTEN.**
- How much would you say you know about antibiotics and how they work? **MODERATOR TO TAKE SHOW OF HANDS FOR A LOT, SOME, NOT THAT MUCH, NOTHING.** Just briefly, what are antibiotics and, generally, how do they work? Probe for:
    - Are there different types of antibiotics? Can you name the most commonly used antibiotics? What are they used for?

  - What form are antibiotics usually given as (i.e., tablet, powder, syrup, ointment, etc.)
- When or under what types of circumstances or situations do you feel antibiotics are warranted? Probe for conditions/circumstances, when participants would expect to be prescribed antibiotics? **MODERATOR TO BE ATTUNED TO REFERENCES OF BACTERIAL OR VIRAL INFECTIONS. IF 'INFECTION' IS MENTIONED, ASK:** What type of infection? Bacterial or viral? What is the difference?
- Overall, how effective do you feel antibiotics are? If not, explain why not? Probe for:
  - Do you think of antibiotics in much the same way as you do other medications like Tylenol or Aspirin, in the sense that they are a pretty standard, commonplace medication? Or do you view them differently? Explain.
- What are all the positives associated with antibiotics? **MODERATOR TO WRITE LIST ON FLIP CHART.**
- Are there any negatives associated with antibiotics? Are there any risks involved in taking antibiotics? Do you have any concerns about antibiotics? **MODERATOR TO WRITE LIST ON FLIP CHART.** Probe for:
  - Where did you hear about this issue? Is it relevant to you?
  - Is the risk any different from the risk associated with other medications such as Tylenol, Aspirin, etc.? Explain.
  - Is there any risk of over-using antibiotics? Explain.

USE OF AND EXPERIENCE WITH ANTIBIOTICS (20 MINUTES)

- How many of you, or an immediate family member such as your partner or child, have been prescribed and/or used an antibiotic in the last 5 years? Probe for:
  - Thinking about the last time … can you tell me more about the circumstances? Probe for:
    - What happened?
    - Did you/they take an antibiotic that was prescribed for you? Or, did you/they use an antibiotic that you already had?
    - What is your experience with your GP or other health professionals in terms of prescribing antibiotics? Do you usually request it? Does your GP prescribe it quite readily? Or does your GP counsel you to try other options before being prescribed an antibiotic? Have there been times when you've asked for antibiotics but it was not prescribed? What did your GP say? How would you react if you had a fever and a cold, and your doctor refused to prescribe antibiotics? What would you do?
  - Is there anyone in the group who has never used/been prescribed an antibiotic? Probe for: Is it simply because you have never needed it, or is there another reason why you have refrained from taking antibiotics? Probe for: cost of purchasing/lack of drug plan, ideological issues, etc.
- Tell me a bit more about your experience using antibiotics. Probe for:
  - Do you always take the full amount given, or do you think it's sufficient to take them until you start to feel better?
  - Have you ever stopped taking antibiotics or adjusted the dose during your course of treatment, by yourself? What was the reason for doing so?
  - Have you ever used antibiotics that were not prescribed for you specifically? What were the circumstances? For example, if you have antibiotics in your medicine cabinet (leftover from another use) is there any reason why you shouldn't use them if you need them?
  - What do you do with any leftover antibiotics?

- Are there situations when you feel that you are better off trying to avoid taking an antibiotic until it becomes absolutely necessary? For example, do you start by trying to deal with the situation yourself? What do you typically do? Is there a point you reach when you decide you may need to seek treatment? Can you describe that for me?

AWARENESS AND UNDERSTANDING OF ANTIMICROBIAL RESISTANCE AND RESPONSE (35 MINUTES)

- Have you ever heard of the following terms? **MODERATOR TO WRITE ON FLIP CHART AND RECORD AWARENESS.** Probe for: What do you know about:
  - Antibiotic resistance
  - Superbugs
  - Antimicrobial resistance
  - AMR
  - Drug resistance
  - Antibiotic resistant bacteria
- Where did you hear about this? What specifically did you hear?
- Which term are you most familiar with? Do these terms all mean the same thing or something a little different? Explain.
- How concerned are you about the issue of antibiotic resistance?
- What is antibiotic resistance?
- What are the main factors, as far as you are aware, that have contributed to antibiotic resistance?
- **IF NOT FULLY AWARE, MODERATOR TO SHARE EXPLANATION: Antibiotic resistance or antimicrobial resistance is defined as the resistance of bacterial, viral, parasitic and fungal microorganisms to antimicrobial medicines that were previously effective for the treatment of infections. It is the ability of a microorganism to stop an antimicrobial from working against it. As a result, standard treatments become ineffective, infections persist and may spread to others. The microorganisms that develop antimicrobial resistance are sometimes referred to as 'superbugs.'**
- Before we get into this issue more deeply, what questions do you have about it? What more do you want to know about AMR? **MODERATOR TO WRITE LIST OF QUESTIONS ON FLIP CHART.**
- AMR is recognized as a serious global public health threat. What is your view? Is this something you feel is an urgent issue to be dealt with? Why/why not? Probe for:
  - What words would you use to describe the nature of this issue? For example, do you view it is an 'imminent disaster,' a 'serious threat,' 'a slowly emerging disaster,' or a 'serious, but manageable issue?' What level of risk would you associate with this issue?
  - Are there other issues that you feel are more urgent? Which ones? In terms of global issues, how does this compare to things like climate change, for example?
  - To what extent is this an issue in Canada? Or do you feel this is more of an issue in other countries? What countries?
  - What do you feel are the consequences if nothing is done to address this issue? Anything?
- How relevant is this issue to you personally? How do you see yourself/your family affected by this, if at all? Explain. Probe for:
  - Do you think this issue will affect some groups of people more than others? (i.e., sub-groups of the population) If so, which ones? Why do you think that?
- What can or should be done to address this issue? Probe for:

    - Whose responsibility mostly is it? Personal, health professionals, industry, government, nationwide, global?
- Some people say that there are several factors contributing to this issue: overuse or over-prescription of antibiotics, overuse of antibiotics within the agricultural sector, and travelers who bring resistant bacterias back home with them? Do these make sense to you? Or do you question some of these theories?

- How much of a difference would it make if we, personally, reduced our use of antibiotics? Probe for:
    - Are there ways that we could use antibiotics more judiciously? How would that work? What could we do? How easy or difficult would that be? What are the most important reasons for engaging in more judicious use of antibiotics?
    - Are there any issues or barriers? What would be some of the downsides if we use antibiotics less frequently?
    - What are you specifically prepared to do to counter antibiotic resistance? Probe for: get vaccinated, travel less, other actions. Do you feel this is something you could easily/readily do? Would other members of your family have more/less difficulty?
- What do people need to know more of or be more educated about in order to help reduce the use of antibiotics and address the issue of antibiotic resistance? What kind of information do people need? Probe for:
    - Who would you trust most to give you accurate information about this issue and what you can do personally?

WRAP UP (5 MINUTES)

- What is the one thing that people need to hear to make them more aware of the issue of antibiotic resistance and to prompt them to use antibiotics less frequently?

THANK PARTICIPANTS AND END SESSION

GUIDE DE L'ANIMATEUR – RAM
FINAL (LE 12 JUILLET 2019)

INTRODUCTION (5 MINUTES)

- Souhaiter la bienvenue aux participantes et aux participants/présentation de l'animateur
- Précisez le commanditaire de la recherche et expliquez l'objectif des groupes – les groupes sont entrepris pour le compte du gouvernement du Canada (Santé Canada/Agence de la santé publique du Canada) afin d'explorer des enjeux liés à la santé des Canadiens. Plus précisément, cette discussion portera sur les attitudes à l'égard de certains médicaments d'ordonnance et leur utilisation.
- Expliquez les particularités de la salle/des installations de vidéoconférence et les dispositions en matière de confidentialité :
    - Enregistrement vidéo/audio et le miroir argus
    - Confidentialité – aucun commentaire ne sera attribué aux participantes et participants
    - Utilisation des prénoms seulement et aucun nom n'apparaîtra dans le rapport
- Expliquez la forme que prendra la discussion
    - Conversation fluide – nous recherchons des réponses sincères et honnêtes plutôt que de forcément obtenir un consensus
    - La discussion durera la totalité des 90 minutes
    - L'animateur ne travaille pas pour Santé Canada, ni pour L'Agence de la santé publique du Canada, ni pour aucune entreprise ou agence dans le secteur de la santé ou pharmaceutique
- Tour de table afin de se présenter brièvement - parlez-nous un peu de vous. Il serait intéressant de savoir si l'un d'entre vous, ou de votre famille immédiate, a suivi une formation de professionnelle de la santé et/ou a travaillé dans le secteur de la santé. Le cas échéant, à quel titre ?
- Veuillez noter que tout au long de la discussion, je vais surtout vous inviter à répondre à des questions au sujet de votre propre expérience. Cependant, il est possible que nous voulions également obtenir un aperçu des pratiques dans votre ménage et/ou à l'égard d'autres personnes dont vous prenez soin.

SENSIBILISATION ET CONNAISSANCE DES ANTIBIOTIQUES (25 MINUTES)

- Commençons par une question assez générale. D'où obtenez-vous généralement des informations sur la santé et sur les médicaments ? Sondez pour :
    - Professionnels de la santé
    - Le gouvernement ou les agences de santé publique
    - En ligne/médias sociaux (quelles sources en particulier ?)
    - Membres de la famille
    - Autres personnes influentes (précisez)
- Plus précisément, j'aimerais vous poser des questions au sujet des antibiotiques. Qu'est-ce qui vous vient à l'esprit lorsque j'utilise le terme antibiotique - qu'est-ce que vous associez à ce terme, y compris les mots, les phrases, les noms, les images, les couleurs, les sentiments, tec. Veuillez prendre un moment pour écrire vos premières réactions. L'ANIMATEUR DEMANDERA À CE QUE CHACUNE OU CHACUN PARTAGE CE QU'ELLES OU ILS ONT ÉCRIT
- Selon vous, dans quelle mesure connaissez-vous les antibiotiques et comment fonctionnent-ils, p.ex. leur mode d'action ? **L'ANIMATEUR DEMANDERA À CE QU'ON LÈVE LA MAIN POUR : BEAUCOUP, ASSEZ, PEU,**

RIEN Brièvement, que sont les antibiotiques et de manière générale, comment fonctionnent-ils ? Sondez pour :

- Existe-t-il différents types d'antibiotiques ? Pouvez-vous nommer les antibiotiques les plus couramment utilisés ? À quoi servent-ils ?
- Les antibiotiques sont généralement donnés sous quelle forme (comprimé, poudre, sirop, onguent, etc.) ?

- À quel moment ou dans quels types de circonstances ou de situations pensez-vous que des antibiotiques sont justifiés ? Sondez pour connaître les conditions et les circonstances selon lesquelles les participantes ou participants s'attendraient à ce qu'on leur prescrive des antibiotiques ? **L'ANIMATEUR DOIT PRENDRE BONNE NOTE DE SI L'ON FAIT RÉFÉRENCE À DES INFECTIONS BACTÉRIENNES OU VIRALES. SI L'ON MENTIONNE « INFECTION », DEMANDEZ :** Quel type d'infection ? Bactérienne ou virale ? Quelle est la différence ?
- Globalement, dans quelle mesure estimez-vous que les antibiotiques sont efficaces ? Si ce n'est pas le cas, expliquez pourquoi ? Sondez pour :
  - Percevez-vous les antibiotiques de la même façon que d'autres médicaments tels que Tylenol ou Aspirin, dans le sens qu'ils sont un médicament plutôt conventionnel et répandu ? Ou les voyez-vous différemment ? Veuillez expliquer.
- Quels sont tous les aspects positifs associés aux antibiotiques ? **L'ANIMATEUR ÉCRIRA LA LISTE SUR LE TABLEAU À FEUILLES MOBILES**.
- Quels sont tous les aspects négatifs associés aux antibiotiques ? Y a-t-il des risques associés à prendre des antibiotiques ? Avez-vous des préoccupations par rapport aux antibiotiques ? **L'ANIMATEUR ÉCRIRA LA LISTE SUR LE TABLEAU À FEUILLES MOBILES**. Sondez pour :
  - Où avez-vous entendu parler de cette question ? Est-ce pertinent pour vous ?
  - Est-ce que le risque est différent de celui associé à d'autres médicaments tels que Tylenol, Aspirin, etc.? Veuillez expliquer.
  - Y a-t-il un risque de surconsommation ou de surutilisation d'antibiotiques ? Veuillez expliquer.

A. <u>UTILISATION ET EXPÉRIENCE AVEC LES ANTIBIOTIQUES (20 MINUTES)</u>

- Combien d'entre vous, ou un membre de votre famille immédiate comme votre conjoint/conjointe ou votre enfant, se sont fait prescrire et/ou ont utilisé un antibiotique au cours des 5 dernières années ? Sondez pour :
  - En pensant à la dernière fois... pouvez-vous m'en dire un peu plus sur les circonstances ? Sondez pour :
    - Que s'est-il passé ?
    - Avez-vous/ont-ils pris un antibiotique qui vous/leur a été prescrit ? Ou, était-ce un antibiotique que vous aviez ou qu'ils avaient déjà ?
  - Quelle est votre expérience avec votre médecin généraliste ou d'autres professionnels de la santé pour ce qui est de la prescrire des antibiotiques ? Habituellement, en faites-vous la demande ? Est-ce que votre médecin vous le prescrit assez facilement ? Ou bien est-ce que votre médecin vous conseille d'essayer d'autres options avant de vous prescrire un antibiotique ? Avez-vous déjà demandé des antibiotiques, mais ils ne vous ont pas été prescrits ? Qu'a dit votre médecin ? Comment réagiriez-vous si vous aviez une fièvre et un rhume et que votre médecin refusait de vous prescrire des antibiotiques ? Que feriez-vous ?

- Y a-t-il quelqu'un dans le groupe qui n'a jamais utilisé ou ne s'est jamais vu prescrire un antibiotique ? Sondez pour : Est-ce simplement parce que vous n'en avez jamais eu besoin, ou y a-t-il une autre raison pour laquelle vous vous êtes abstenu de prendre des antibiotiques ? Sondez pour : le coût d'achat ou le manque de couverture des médicaments, des questions idéologiques, etc.

- Parlez-moi un peu plus de votre expérience avec les antibiotiques. Sondez pour :
  - Prenez-vous toujours la totalité de la quantité qui vous est donnée, ou pensez-vous qu'il est suffisant de les prendre jusqu'à ce que vous vous sentiez mieux ?
  - Avez-vous déjà cessé de prendre des antibiotiques ou ajusté la dose au cours de votre traitement, par vous-même ? Quelle en était la raison ?
  - Avez-vous déjà utilisé des antibiotiques qui ne vous ont pas été spécifiquement prescrits ? Quelles étaient les circonstances ? Par exemple, si vous avez des antibiotiques dans votre pharmacie (restes d'une utilisation antérieure), y a-t-il une raison pour laquelle vous ne devriez pas les utiliser si vous en avez besoin ?
  - Que faites-vous avec les antibiotiques restants ?
  - Y a-t-il des situations où vous pensez qu'il vaut mieux essayer d'éviter de prendre un antibiotique jusqu'à ce que cela devienne absolument nécessaire ? Par exemple, commencez-vous par essayer de régler la situation vous-même ? Que faites-vous habituellement ? Y a-t-il un point que vous atteignez lorsque vous décidez que vous devez peut-être vous faire soigner ? Pouvez-vous me décrire ça ?

SENSIBILISATION ET COMPRÉHENSION DE LA RÉSISTANCE AUX ANTIMICROBIENS ET DE LA RÉPONSE À SON ÉGARD (35 MINUTES)

- Avez-vous déjà entendu parler des termes suivants ? **L'ANIMATEUR ÉCRIRA SUR LE TABLEAU À FEUILLES MOBILES ET NOTERA LE DEGRÉ DE SENSIBILISATION.** Sondez pour :
  - Résistance aux antibiotiques
  - Superbactéries
  - Résistance aux antimicrobiens
  - La RAM
  - Résistance aux médicaments
  - Bactéries résistantes aux antibiotiques
- Où avez-vous entendu parler de cela ? Qu'avez-vous entendu dire exactement ?
- Quel terme connaissez-vous le mieux ? Est-ce que ces termes signifient tous la même chose ou quelque chose d'un peu différent ? Expliquez-moi. Veuillez expliquer.
- Dans quelle mesure êtes-vous préoccupé par la question de la résistance aux antibiotiques ?
- Qu'est-ce que la résistance aux antibiotiques ?
- Quels sont les principaux facteurs, à votre connaissance, qui ont contribué à la résistance aux antibiotiques ?
- **SI MÉCONNU, L'ANIMATEUR PARTAGERA L'EXPLICATION SUIVANTE :** ***La résistance aux antibiotiques ou la résistance aux antimicrobiens (la RAM) est définie comme la résistance des microorganismes bactériens, viraux, parasitaires ou fongiques aux médicaments antimicrobiens qui étaient auparavant efficaces pour traiter des infections. C'est la capacité d'un microorganisme d'empêcher un antimicrobien d'agir contre lui. Par conséquent, les traitements habituels deviennent inefficaces, les infections persistent et peuvent se propager à d'autres personnes. Les microorganismes qui développent une résistance aux antimicrobiens sont parfois appelés « superbactéries ».***

- Avant d'entrer dans le vif du sujet, avez-vous des questions à ce sujet ? Que voulez-vous savoir de plus sur la RAM ? **L'ANIMATEUR ÉCRIRA LA LISTE DES QUESTIONS SUR LE TABLEAU À FEUILLES MOBILES.**
- La RAM est reconnue comme une menace grave pour la santé publique mondiale. Qu'en pensez-vous ? Sentez-vous qu'il s'agit d'une question urgente à régler ? Pourquoi/pourquoi pas ? Sondez pour :
    - Quels mots utiliseriez-vous pour décrire la nature de cette question ? Par exemple, pensez-vous qu'il s'agit d'un « désastre imminent », d'une « menace grave », d'une « catastrophe qui se manifeste lentement » ou d'un « problème grave, mais gérable » ? Quel niveau de risque associeriez-vous à cette question ?
    - Y a-t-il d'autres enjeux qui vous semblent plus urgents ? Lesquels ? En ce qui concerne les enjeux mondiaux, comment cela se compare-t-il à des choses telles que le changement climatique, par exemple ?
    - Dans quelle mesure s'agit-il d'un enjeu au Canada ? Ou pensez-vous qu'il s'agit davantage d'un enjeu dans d'autres pays ? Quels pays ?
    - Quelles sont, selon vous, les conséquences si rien n'est fait pour régler ce problème ? Quelque chose de particulier ?
- Personnellement, dans quelle mesure est-ce que cette question vous est pertinente ? De quelle façon vous vous voyez ou voyez votre famille être affectés par cela ? Veuillez expliquer. Sondez pour :
    - Pensez-vous que cette question affectera certains groupes de personnes plus que d'autres ? (c.-à-d. sous-groupes de la population) Si oui, lesquels ? Pourquoi pensez-vous cela ?
- Que peut-on ou devrait-on faire pour remédier à cette question ? Sondez pour :
    - À qui incombe la responsabilité principale ? Soi-même, les professionnels de la santé, l'industrie, le gouvernement, à l'échelle nationale, à l'échelle mondiale ?
- Certains disent qu'il y a plusieurs facteurs qui contribuent à ce fléau : la surconsommation ou la prescription excessive d'antibiotiques, la surutilisation d'antibiotiques dans le secteur agricole et les voyageurs qui rapportent avec eux des bactéries résistantes ? Est-ce que cela vous semble logique ? Ou remettez-vous en question certaines de ces théories ?
- Quelle différence cela ferait-il si, personnellement, nous réduisions notre utilisation d'antibiotiques ? Sondez pour :
    - Existe-t-il des moyens d'utiliser les antibiotiques de façon plus judicieuse ? Comment cela fonctionnerait-il ? Que pourrions-nous faire ? À quel point cela serait-il facile ou difficile ? Quelles sont les raisons les plus importantes de faire un usage plus judicieux des antibiotiques ?
    - Y a-t-il des problèmes ou des obstacles ? Quels seraient certains des désavantages si nous utilisions moins souvent les antibiotiques ?
    - Qu'êtes-vous prêt à faire concrètement pour contrer la résistance aux antibiotiques ? Sondez pour : se faire vacciner, voyager moins, d'autres actions. Pensez-vous que c'est quelque chose que vous pourriez faire facilement et rapidement ? Les autres membres de votre famille auraient-ils plus ou moins de difficultés ?
- Qu'est-ce que les gens doivent savoir de plus ou à quel sujet doivent-ils être davantage sensibilisés afin d'aider à réduire l'utilisation des antibiotiques et de remédier à la question de la résistance aux antibiotiques ? Quel genre d'information est-ce que les gens ont besoin ? Sondez pour :
    - En qui auriez-vous le plus confiance pour vous donner des informations précises sur cette question et sur ce que vous pouvez faire personnellement ?

EN CONCLUSION (5 MINUTES)

- Quelle est l'unique chose que les gens doivent entendre pour les sensibiliser les gens à la question de la résistance aux antibiotiques et les inciter à utiliser les antibiotiques moins souvent ?

REMERCIER LES PARTICIPANTS ET CLÔTURER LA SESSION

B. Phase 2 Research Instruments

FINAL SURVEY (Telephone) – December 10, 2021
Knowledge, Attitudes and Understanding of Drug Resistance

Public Health Agency of Canada

INTRODUCTION:

Hello/Bonjour, my name is INSERT NAME from The Strategic Counsel, a professional public opinion research company. Would you prefer that I continue in English or French? Préférez-vous continuer en français ou en anglais? **[IF FRENCH, CONTINUE IN FRENCH OR ARRANGE A CALL BACK WITH FRENCH INTERVIEWER:** Nous vous rappellerons pour mener cette entrevue de recherche en français. Merci. Au revoir].

[Record Language]

We are conducting a survey on behalf of the Public Health Agency of Canada regarding your views on various topics related to health and medications. It should take no longer than about 15-20 minutes to complete. Your participation is voluntary and completely confidential. Your answers will remain anonymous. May I continue? **IF UNABLE TO READ ENTIRE INTRODUCTION INTERVIEWER MUST PROVIDE LENGTH OF INTERVIEW TO EVERY RESPONDENT.**

IF YES, QUALIFY AND CONTINUE. May I please speak to the person, 18 years of age or older, living in this household, who had the most recent or last birthday? Would that be you or someone else?

IF NO, BUT SOMEONE ELSE AT THIS NUMBER, ASK: May I speak with that person, please?

IF REFERRED TO ANOTHER PERSON, START FROM THE TOP. IF PERSON IS NOT AVAILABLE, TERMINATE.

IF DON'T KNOW, TERMINATE.

Before I begin, please note this call may be monitored or recorded for quality control purposes. The first few questions are about you.

SCREENING:

1. Record language of interview. **[DO NOT ASK]**

English
French

2. What is your gender?

Female
Male
Other
[DO NOT READ] Prefer not to answer

3. In what year were you born? **[RECORD YEAR – YYYY]**

IF UNDER 18, TERMINATE
IF RESPONDENT PREFERS NOT TO PROVIDE A PRECISE BIRTH YEAR, ASK Q.4

4. Would you be willing to tell me in which of the following age categories you belong?

18 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65 or older
[DO NOT READ] Prefer not to answer

5. In which province or territory do you live?

Alberta
British Columbia
Manitoba
New Brunswick
Newfoundland & Labrador
Northwest Territories
Nova Scotia
Nunavut
Ontario
Prince Edward Island
Quebec
Saskatchewan
Yukon
Outside of Canada **[TERMINATE]**

QA. Do you live in the Greater Halifax Area or elsewhere in the province?

QB. Do you live in the Greater Montreal Area or elsewhere in the province?

QC. Do you live in the GTA, the Greater Ottawa Area, or elsewhere in the province?

QD. Do you live in Winnipeg or elsewhere in the province?

QE. Do you live in Calgary, Edmonton, or elsewhere in the province?

QF. Do you in the Greater Vancouver Area or elsewhere in the province?

6. Are you the parent of children living in your household who are under the age of 18?

Yes
No

7. How many people live in your household, including yourself?

RECORD NUMBER

8. **[PN: ASK IF 2 OR MORE PERSONS AT Q.7]** What are the ages of the other people in your household? **IF NECESSARY, PROMPT:** Do you have people in your household who are… **[CHECK ALL THAT APPLY]**

1 year old or less
2-5 years old
6-10 years old
11-13 years old
14-18 years old
19 years of age or older
[DO NOT READ] Prefer not to answer

TOP-OF-MIND GLOBAL HEALTH ISSUES

9. The next few questions focus more specifically on health. I'm going to read you a list of issues that you may or may not feel pose a threat to global health. Please tell me what **two** issues concern you the most. **[READ LIST AND ROTATE, ACCEPT ONLY TWO RESPONSES]**

Air pollution and climate change
Increasing rates of diabetes, cancer and heart disease
Obesity and overweight
Widespread flu outbreaks, such as H1N1
Covid-19
Overuse of antibiotics
Reluctance to vaccinate
Mosquito-borne diseases e.g., West Nile or Zika
Increase in sexually transmitted diseases
Other: Please specify
[DO NOT READ] Prefer not to answer

GENERAL HEALTH INFORMATION

I have a few questions about your own health.

10. Would you say your health in general is …?

Excellent
Very good
Good
Fair
Poor
Very Poor
[DO NOT READ] Prefer not to answer

11. Certain medical conditions can weaken your body's ability to fight off infections. Are you someone who has heart disease, diabetes, HIV, asthma or some other condition that makes you less likely/able to fight off a sickness?

Yes
No
[DO NOT READ] Don't know

12. When you are making decisions about your own health, including when you feel ill, but also your mental health and general well-being, which of the following do you do? **[READ AND ROTATE ITEMS A-E, CHECK RESPONSE 'YES/NO' FOR EACH. THEN ASK, 'ANYTHING ELSE?' INCLUDE RESPONSE UNDER 'OTHER: SPECIFY.']**

    a. Follow the advice of a health professional
    b. Look up information about the topic
    c. Base your decision on previous experience
    d. Follow the advice of family or friends
    e. Follow the advice of media

    Other (Please specify):
    [DO NOT READ] Prefer not to answer

USE OF DRUGS TO TREAT INFECTIONS E.G., ANTIBIOTICS

This next set of questions asks about your use of drugs to treat infections, for example, antibiotics.

13. **[IF 'YES' AT Q.6 ASK]** Has your child or have any of your children ever taken antibiotics?

Yes
No
[DO NOT READ] Don't know

14. Have you ever taken antibiotics?

Yes
No
[DO NOT READ] Don't know

15. **N/A**

16. **[IF 'YES' AT Q.14, ASK]** Approximately how many times have you taken antibiotics, such as tablets, powder or syrup, IV or injections, in the last 12 months?

None/never
Once
2-5 times
More than 5 times
[DO NOT READ] Don't know

KNOWLEDGE AND ATTITUDES REGARDING ANTIBIOTIC USE

17. Please indicate whether you agree or disagree with each of the following statements about antibiotics. **[READ AND ROTATE STATEMENTS.]**

Strongly agree
Somewhat agree
Somewhat disagree
Strongly disagree
[DO NOT READ] Don't know

a. If I caught a cold, I would ask my doctor to prescribe an antibiotic to prevent my symptoms from getting worse.
b. It's a good idea to keep a stock of antibiotics at home in case of emergency.
c. I would be comfortable taking antibiotics that were prescribed for someone else, if I had the same or similar symptoms.
d. I know my body well enough to feel comfortable adjusting the dose or the number of antibiotics, without having to consult a doctor or nurse.
e. I would prefer not to take antibiotics to avoid any side effects.
f. Antibiotics are effective in treating fungal infections.

18. In your view, are the following statements about antibiotics mostly true or mostly false? **[READ AND ROTATE STATEMENTS.]**

True
False
[DO NOT READ] Don't know

a. Once you start to feel better, it is safe to stop taking antibiotics.
b. Antibiotics are effective against colds and flu.
c. Antibiotics are effective for most sore throats.
d. Antibiotics can kill bacteria.
e. Antibiotics can kill viruses.

AWARENESS AND UNDERSTANDING OF ANTIBIOTIC RESISTANCE

19. Do you think that overuse of antibiotics in Canada is a **[READ LIST.**]?

Major problem
Minor problem
Not a problem
[DO NOT READ] Don't know

20. In the last 12 months, do you remember getting any information on unnecessary antibiotic use, for example, not taking antibiotics for a cold or the flu?

Yes
No
[DO NOT READ] Don't remember

21. How familiar are you with the following terms? **[READ AND ROTATE A-E.]**

Heard the term, and know what it means
Heard the term, but unsure what it means
Have never heard of the term
[DO NOT READ] Don't know

a. Antibiotic resistance
b. Antimicrobial resistance or AMR
c. Superbugs
d. Drug resistance
e. Drug resistant infections

22. **[IF 'HEARD THE TERM' AT Q.21 A-E, ASK]** Have you or someone you know been affected by … **[ROTATE A-E, CHECK ALL THAT APPLY.]**

Yes, myself
Yes, another family member
Yes, a friend/someone else I know
No **[EXCLUSIVE]**

a. Antibiotic resistance
b. Antimicrobial resistance (AMR)
c. Superbugs
d. Drug resistance
e. Drug resistant infections

23. Drug resistance is when antibiotics are no longer effective in treating infections that will make you sick. How worried are you about this issue?

Very worried
Somewhat worried
Not too worried
Not worried at all
[DO NOT READ] Don't know

24. And, how worried are you about each of the following? **[READ AND ROTATE STATEMENTS.]**

Very worried
Somewhat worried
Not too worried
Not worried at all
[DO NOT READ] Don't know

a. People traveling outside of Canada bringing drug resistant bacteria and infections to Canada.
b. Drug resistant infections spreading from person to person.
c. Drug resistant infections spreading from animals to humans.

25. Do you agree or disagree with each of the following statements about drug resistance? **[READ AND ROTATE STATEMENTS.]**

Strongly agree
Somewhat agree
Somewhat disagree
Strongly disagree
[DO NOT READ] Don't know

a. Drug resistance will affect people living in other countries more than it will Canadians.
b. There is not much that I can do, as an individual, to address the issue of drug resistance.
c. Using antimicrobial products, like soaps and household cleaners, will help prevent drug resistance.

26. In your view, are some groups or segments of the population more vulnerable to drug resistance or do you feel that it is something that affects everyone?

Some groups are more vulnerable
Affects everyone
[DO NOT READ] Prefer not to answer

27. **[IF 'SOME GROUPS ARE MORE VULNERABLE' AT Q.26, ASK]** Which groups do you feel are most vulnerable to drug resistance? **[READ AND ROTATE ITEMS A-F. CHECK RESPONSE 'YES/NO' FOR EACH. THEN ASK, 'ANYONE ELSE?' INCLUDE RESPONSE IN 'OTHER: SPECIFY.']**

a. Elderly
b. Infants and children
c. People with weakened immune systems
d. People with chronic health conditions
e. Patients who have long stays in hospitals
f. Healthcare workers
Other: please specify
[DO NOT READ] Prefer not to answer

28. To what extent do you believe each of the following are factors contributing to drug resistance? **[READ AND ROTATE A-G.]**

To a great extent
Somewhat
Very little
Not at all
[DO NOT READ] Prefer not to answer

a. Overprescribing of antibiotics by doctors
b. Overprescribing of antibiotics at walk-in clinics
c. Patients requesting antibiotics when they are not needed
d. Misuse, such as not finishing the full course of antibiotics
e. Overuse of antibiotics in livestock and fish farming
f. Waste products from antibiotics entering the environment
g. People obtaining antibiotics, not through a doctor

29. Who do you trust the most when it comes to providing you with information on antibiotics and drug resistance? Who else? **[READ LIST AND ROTATE. ACCEPT UP TO TWO RESPONSES.]**

A doctor
A nurse
A pharmacist
Companies that make antibiotics
Researchers or experts
A health-related website (such as the Mayo Clinic or the World Health Organization)
Family or friends
Online social media
The news media
The Government of Canada
[DO NOT READ] Prefer not to answer

30. Do you recall seeing anything from the Government of Canada on the topic of drug resistance or antibiotic resistance over the last 5 years?

Yes
No
[DO NOT READ] Don't know

OTHER

31. Do you have a healthcare background?
Yes
No
Don't know
[DO NOT READ] Prefer not to answer

32. **[IF 'YES' AT Q.31, ASK]** Please specify your background. **[DO NOT READ LIST, CHECK ITEM THAT IS MOST RELEVANT.]**

Physician/surgeon
Physician assistant/Nurse Practitioner
Registered nurse/Vocational nurse
Pharmacist/pharmacist technician
Dentist/Dental Hygienist
EMT (emergency medical technician)/paramedic
Therapist/Chiropractor/Physiotherapist
Laboratory technician
Counselor/Social Worker
Dietician/Nutritionist
PSW (personal support worker)/Nursing Assistant
Office/administrative support (e.g. medical assistant, receptionist, secretary, administrative assistant)
Management
Other: please specify
[DO NOT READ] Prefer not to answer

DEMOGRAPHICS

Now, I have few more questions which are to be used for statistical purposes only. These last few questions will allow us to compare the survey results among different groups of respondents. Your answers will remain anonymous and confidential.

33. What is the highest level of formal education that you have completed? **[READ LIST.]**

Less than a High School diploma or equivalent
High School diploma or equivalent
Registered Apprenticeship or other trades certificate or diploma
College, CEGEP or other non-university certificate or diploma
University certificate or diploma below bachelor's level
Bachelor's degree
Post graduate degree above bachelor's level
[DO NOT READ] Prefer not to answer

34. Which of the following best describes your total household income last year, before taxes, from all sources for all household members? **[READ LIST. ACCEPT ONLY ONE RESPONSE.]**

Under $20,000
$20,000 to just under $40,000
$40,000 to just under $60,000
$60,000 to just under $80,000
$80,000 to just under $100,000
$100,000 to just under $150,000
$150,000 and above
[DO NOT READ] Prefer not to answer

35. What language do you speak most often at home? **[ACCEPT ALL THAT APPLY.]**

English
French
Other: please specify
[DO NOT READ] Prefer not to answer

36. Does your household subscribe to a home phone service, also known as a landline?

Yes
No
Don't know
[DO NOT READ] Prefer not to answer

37. How many working cellphones does your household have?

0
1
2
3
4 or more
Don't know

[DO NOT READ] Prefer not to answer

38. Approximately, what is the current population of the community in which you live?

1,000,000 or more
500,000 to 999,999
100,000 to 499,999
50,000 to 99,999
10,000 to 49,999
5,000 to 9,999
Under 5,000
[DO NOT READ] Prefer not to answer

39. May I have the first three digits of your postal code?

RECORD FIRST THREE DIGITS
[DO NOT READ] Prefer not to answer

40. Disregarding the current pandemic circumstances, typically how often do you travel outside of Canada to places other than the United States, for either business or pleasure? **[READ LIST AND ACCEPT ONE RESPONSE ONLY.]**
Once every few years
About once a year
2-3 times a year
4-5 times a year
More than 5 times a year
Never travel outside of Canada, beyond the United States
[DO NOT READ] Prefer not to answer

THE STRATEGIC COUNSEL

SONDAGE FINAL (téléphonique) — 10 décembre 2021
Connaissance, attitudes et compréhension relatives à la résistance aux médicaments

Agence de la santé publique du Canada

INTRODUCTION :

Hello/Bonjour, my name is INSERT NAME from The Strategic Counsel, a professional public opinion research company. Would you prefer that I continue in English or French? Préférez-vous continuer en français ou en anglais? **[SI LA RÉPONSE EST « FRANÇAIS », CONTINUER EN FRANÇAIS OU PRÉVOIR UN RAPPEL AVEC UNE PERSONNE QUI PARLE FRANÇAIS :** Nous vous rappellerons pour mener cette entrevue de recherche en français. Merci. Au revoir].

[Indiquer la langue]

Nous menons un sondage au nom de l'Agence de la santé publique du Canada pour recueillir votre point de vue sur divers sujets liés à la santé et aux médicaments. Le sondage ne devrait pas prendre plus de 15 à 20 minutes. Votre participation est volontaire et entièrement confidentielle. Vos réponses demeureront anonymes. Puis-je continuer? **SI VOUS ÊTES DANS L'INCAPACITÉ DE LIRE TOUTE L'INTRODUCTION, VOUS DEVEZ FAIRE CONNAÎTRE LA DURÉE DE L'ENTREVUE À CHAQUE RÉPONDANT OU RÉPONDANTE.**

SI LA RÉPONSE EST OUI, QUALIFIER ET POURSUIVRE. Puis-je parler à la personne âgée de 18 ans ou plus qui vit dans ce ménage et dont l'anniversaire est le plus récent? S'agit-il de vous ou de quelqu'un d'autre?

SI LA RÉPONSE EST NON, MAIS QU'IL Y A UNE AUTRE PERSONNE À CE NUMÉRO, DEMANDER : Puis-je parler à cette personne, s'il vous plaît?

EN CAS DE RENVOI VERS UNE AUTRE PERSONNE, RECOMMENCER DEPUIS LE DÉBUT. SI LA PERSONNE N'EST PAS DISPONIBLE, TERMINER.

SI ON NE SAIT PAS, TERMINER.

Avant de commencer, veuillez noter que cet appel peut être écouté ou enregistré à des fins de contrôle de la qualité. Les premières questions vous concernent.

PRÉSÉLECTION :

1. Inscrire la langue dans laquelle l'entrevue se déroulera. **[NE PAS POSER LA QUESTION.]**

Anglais
Français

2. De quel genre êtes-vous?

Femme
Homme
Autre
[NE PAS LE LIRE] Préfère ne pas répondre

3. Quelle est l'année de votre naissance? **[INSCRIRE L'ANNÉE — AAAA]**

SI LA PERSONNE A MOINS DE 18 ANS, TERMINER
SI LA PERSONNE PRÉFÈRE NE PAS DONNER D'ANNÉE PRÉCISE, POSER LA Q. 4

4. Accepteriez-vous de me dire à quelle catégorie d'âge vous appartenez parmi les suivantes?

Entre 18 et 24 ans
Entre 25 et 34 ans
Entre 35 et 44 ans
Entre 45 et 54 ans
Entre 55 et 64 ans
65 ans ou plus

[NE PAS LIRE] Préfère ne pas répondre

5. Dans quelle province ou quel territoire résidez-vous?

Alberta
Colombie-Britannique
Manitoba
Nouveau-Brunswick
Terre-Neuve-et-Labrador
Territoires du Nord-Ouest
Nouvelle-Écosse
Nunavut
Ontario
Île-du-Prince-Édouard
Québec
Saskatchewan
Yukon
Hors du Canada **[TERMINER]**

QA. Habitez-vous dans la grande région d'Halifax ou ailleurs dans la province?

QB. Habitez-vous dans la grande région de Montréal ou ailleurs dans la province?

QC. Habitez-vous dans la grande région de Toronto, la grande région d'Ottawa ou ailleurs dans la province?

QD. Habitez-vous à Winnipeg ou ailleurs dans la province?

QE. Habitez-vous à Calgary, à Edmonton ou ailleurs dans la province?

QF. Habitez-vous dans la grande région de Vancouver ou ailleurs dans la province?

6. Êtes-vous parent d'un ou de plusieurs enfants âgés de moins de 18 ans qui vivent dans votre foyer?

Oui
Non

7. Combien de personnes vivent dans votre foyer, y compris vous-même?

INSCRIRE LE NOMBRE

8. **[NP : DEMANDER, S'IL Y A PLUS DE 2 PERSONNES À LA Q.7]** Quel est l'âge des autres personnes de votre foyer? **SI NÉCESSAIRE, SONDER** : Y a-t-il dans votre foyer des personnes qui ont… **[COCHER TOUTES LES RÉPONSES PERTINENTES.]**

1 an ou moins
Entre 2 et 5 ans
Entre 6 et 10 ans
Entre 11 et 13 ans
Entre 14 et 18 ans
19 ans ou plus
[NE PAS LIRE] Préfère ne pas répondre

LES QUESTIONS LES PLUS PRÉOCCUPANTES EN MATIÈRE DE SANTÉ MONDIALE

9. La prochaine série de questions porte plus spécifiquement sur la santé. Je vais vous lire une liste de problèmes qui, selon vous, menacent ou non la santé mondiale. Veuillez me dire quels sont les **deux** problèmes qui vous préoccupent le plus **[LIRE LA LISTE ET FAIRE UNE ROTATION, N'ACCEPTER QUE DEUX RÉPONSES.]**

La pollution atmosphérique et les changements climatiques
L'augmentation des taux de diabète, de cancer et de maladies cardiaques
L'obésité et la surcharge pondérale
Les épidémies de grippe généralisées, comme la grippe H1N1
La COVID-19
La surconsommation d'antibiotiques
La réticence à la vaccination
Les maladies transmises par les moustiques, par exemple le virus du Nil occidental ou le Zika
L'augmentation des maladies sexuellement transmissibles
Autre : veuillez préciser
[NE PAS LIRE] Préfère ne pas répondre

RENSEIGNEMENTS GÉNÉRAUX EN MATIÈRE DE SANTÉ

J'ai quelques questions à vous poser concernant votre propre santé.

10. Comment qualifieriez-vous votre santé, de manière générale…?

Excellente
Très bonne
Bonne
Moyenne
Mauvaise
Très mauvaise
[NE PAS LIRE] Préfère ne pas répondre

11. Certaines conditions médicales peuvent affaiblir la capacité de votre corps à combattre les infections. Êtes-vous atteint d'une maladie cardiaque, de diabète, du VIH, d'asthme ou d'une autre affection qui vous rend moins apte à combattre une maladie?

Oui
Non
[NE PAS LIRE] Ne sait pas

12. Parmi les propositions qui suivent, quelles sont celles qui s'appliquent lorsque vous devez prendre des décisions concernant votre propre santé en raison d'une maladie ou pour maintenir votre santé mentale ou votre bien-être général? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS A-E, COCHER « OUI/NON » POUR CHACUN. PUIS DEMANDER « AUTRE CHOSE? ». INDIQUER LA RÉPONSE SOUS « AUTRE (VEUILLEZ PRÉCISER : ».]**

Je suis les conseils d'un professionnel de la santé
Je cherche des informations sur le sujet
Je fonde ma décision sur une expérience antérieure
Je suis les conseils de la famille ou des amis
Je suis les conseils des médias
Autre (veuillez préciser) :
[NE PAS LIRE] Préfère ne pas répondre

UTILISATION DE MÉDICAMENTS, COMME DES ANTIBIOTIQUES, POUR LE TRAITEMENT D'INFECTIONS

La prochaine série de questions porte sur l'utilisation de médicaments, comme les antibiotiques, pour traiter les infections.

13. **[SI LA RÉPONSE EST OUI À LA Q. 6, DEMANDER]** Votre enfant ou l'un de vos enfants a-t-il déjà pris des antibiotiques?

Oui
Non
[NE PAS LIRE] Ne sait pas

14. Avez-vous déjà pris des antibiotiques?

Oui
Non
[NE PAS LIRE] Ne sait pas

15. **N/A**

16. **[SI LA RÉPONSE EST OUI À LA Q. 14, DEMANDER]** Combien de fois environ avez-vous pris des antibiotiques, par exemple sous forme de comprimés, de poudre ou de sirop, par intraveineuse ou par injection, au cours des 12 derniers mois?

Aucune/jamais
Une fois
De 2 à 5 fois
Plus de 5 fois
[NE PAS LIRE] Ne sait pas

CONNAISSANCES ET ATTITUDES RELATIVES À LA PRISE D'ANTIBIOTIQUES

17. Veuillez indiquer dans quelle mesure vous êtes en accord ou en désaccord avec chacun des énoncés suivants concernant les antibiotiques. **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS.]**

Tout à fait d'accord
Plutôt d'accord
Plutôt en désaccord
Tout à fait en désaccord
[NE PAS LIRE] Ne sait pas

a. Si je contractais un rhume, je demanderais à mon médecin de me prescrire des antibiotiques pour éviter que mes symptômes ne s'aggravent.
b. C'est une bonne idée de garder une réserve d'antibiotiques à la maison en cas d'urgence.
c. Je n'hésiterais pas à prendre des antibiotiques qui ont été prescrits à quelqu'un d'autre, si je présentais les mêmes symptômes ou des symptômes similaires.
d. Je connais suffisamment bien mon corps pour être en mesure d'ajuster la dose ou le nombre de prises d'antibiotiques, sans avoir à consulter un médecin ou une infirmière.
e. Je préfère ne pas prendre d'antibiotiques pour éviter tout effet secondaire.
f. Les antibiotiques sont efficaces pour traiter les infections fongiques.

18. Selon vous, les énoncés suivants sur les antibiotiques sont-ils plutôt vrais ou plutôt faux? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS.]**

Vrais
Faux
[NE PAS LIRE] Ne sait pas

a. Une fois que l'état de santé commence à s'améliorer, il est possible d'arrêter la prise des antibiotiques en toute sécurité.
b. Les antibiotiques sont efficaces contre le rhume et la grippe.
c. Les antibiotiques sont efficaces pour la plupart des maux de gorge.
d. Les antibiotiques peuvent combattre les bactéries.
e. Les antibiotiques peuvent combattre les virus.

CONNAISSANCE ET COMPRÉHENSION DE LA RÉSISTANCE AUX ANTIBIOTIQUES

19. Pensez-vous que la surconsommation d'antibiotiques au Canada **[LIRE LA LISTE**]…?

Est un problème majeur
Est un problème mineur
N'est pas un problème
[NE PAS LIRE] Ne sait pas

20. Au cours des 12 derniers mois, vous souvenez-vous avoir reçu des informations sur l'utilisation inutile des antibiotiques, comme le fait de ne pas avoir à prendre d'antibiotiques pour un rhume ou une grippe?

Oui
Non

[NE PAS LIRE] Ne s'en souvient pas

21. Dans quelle mesure connaissez-vous les termes qui suivent? **[LIRE ET FAIRE LA ROTATION A-E.]**

A entendu ces termes, et sait ce qu'ils signifient
A entendu ces termes, mais ne sait pas ce qu'ils signifient
N'a jamais entendu ces termes
[NE PAS LIRE] Ne sait pas

a. Résistance aux antibiotiques
b. Résistance aux antimicrobiens ou RAM
c. Superbactéries
d. Résistance aux médicaments
e. Infections résistantes aux médicaments

22. **[SI LA PERSONNE A « ENTENDU CES TERMES » À LA Q. 21 A-E, DEMANDER]** Est-ce que vous ou quelqu'un que vous connaissez a déjà souffert de… **[FAIRE LA ROTATION A-E, COCHER TOUTES LES RÉPONSES PERTINENTES.]**

Oui, moi-même
Oui, une personne de ma famille
Oui, un ami ou une amie/une connaissance
Non **[EXCLUSIVE]**

a. Résistance aux antibiotiques
b. Résistance aux antimicrobiens ou RAM
c. Superbactéries
d. Résistance aux médicaments
e. Infections résistantes aux médicaments

23. On parle de résistance aux médicaments lorsque les antibiotiques ne sont plus efficaces pour traiter les infections qui vous rendent malade. Dans quelle mesure ce problème vous préoccupe-t-il?

Dans une large mesure
Un peu
Très peu
Pas du tout
[NE PAS LIRE] Ne sait pas

24. Et dans quelle mesure chacun des énoncés qui suivent vous préoccupe-t-il? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS.]**

Dans une large mesure
Un peu
Très peu
Pas du tout
[NE PAS LIRE] Ne sait pas

a. Les personnes qui voyagent à l'extérieur du Canada et rapportent au pays des bactéries et des infections résistantes aux médicaments.
b. Les infections résistantes aux médicaments qui sont transmises d'une personne à l'autre.
c. Les infections résistantes aux médicaments qui sont transmises des animaux aux humains.

25. Dans quelle mesure êtes-vous en accord ou en désaccord avec chacun des énoncés qui suivent au sujet de la résistance aux médicaments? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS.]**

Tout à fait d'accord
Plutôt d'accord
Plutôt en désaccord
Tout à fait en désaccord
[NE PAS LIRE] Ne sait pas

a. La résistance aux médicaments touchera davantage les personnes vivant ailleurs qu'au Canada.
b. Il n'y a pas grand-chose que je puisse faire, à titre personnel, pour résoudre le problème de la résistance aux médicaments.
c. L'utilisation de produits antimicrobiens, comme les savons et les nettoyants ménagers, contribuera à prévenir la résistance aux médicaments.

26. Selon vous, certains groupes ou segments de la population sont-ils plus vulnérables à la résistance aux médicaments ou s'agit-il d'un phénomène qui touche tout le monde?

Certains groupes sont plus vulnérables
Ce phénomène touche tout le monde
[NE PAS LIRE] Préfère ne pas répondre

27. **[SI LA PERSONNE A RÉPONDU « CERTAINS GROUPES SONT PLUS VULNÉRABLES » À LA Q. 26, DEMANDER]** Selon vous, quels sont les groupes les plus vulnérables à la résistance aux médicaments? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS A-F, COCHER « OUI/NON » POUR CHACUN. PUIS DEMANDER « D'AUTRES PERSONNES? ». INDIQUER LA RÉPONSE SOUS « AUTRE : VEUILLEZ PRÉCISER ».]**

Les personnes âgées
Les nourrissons et les enfants
Les personnes dont le système immunitaire est affaibli
Les personnes souffrant de problèmes de santé chroniques
Les personnes qui font de longs séjours à l'hôpital
Le personnel du secteur de la santé
Autre : veuillez préciser
[NE PAS LIRE] Préfère ne pas répondre

28. Dans quelle mesure pensez-vous que chacun des éléments suivants représente un facteur qui contribue à la résistance aux médicaments? **[LIRE ET FAIRE LA ROTATION DES ÉNONCÉS A-G.]**

Dans une large mesure
Un peu
Très peu
Pas du tout
[NE PAS LIRE] Préfère ne pas répondre

a. La prescription excessive d'antibiotiques par les médecins
b. La prescription excessive d'antibiotiques dans les cliniques sans rendez-vous
c. La demande d'antibiotiques par les patients alors qu'ils n'en ont pas besoin
d. Une mauvaise utilisation, comme le fait de ne pas poursuivre le traitement antibiotique jusqu'au bout
e. La surconsommation d'antibiotiques dans l'élevage et la pisciculture
f. Les résidus d'antibiotiques dans l'environnement
g. Les personnes qui se procurent des antibiotiques sans passer par un médecin

29. À qui faites-vous le plus confiance lorsqu'il s'agit d'obtenir des informations sur les antibiotiques et la résistance aux médicaments? Qui d'autre? **[LIRE LA LISTE ET FAIRE LA ROTATION DES ÉNONCÉS.] ACCEPTER JUSQU'À DEUX RÉPONSES.]**

Un ou une médecin
Le personnel infirmier
Le personnel de la pharmacie
Les entreprises pharmaceutiques qui fabriquent des antibiotiques
Des chercheurs ou chercheuses ou des experts ou expertes
Un site Web sur la santé (comme la clinique Mayo ou l'Organisation mondiale de la santé)
La famille ou les amis
Les médias sociaux
Les médias d'information
Le gouvernement du Canada
[NE PAS LIRE] Préfère ne pas répondre

30. Vous souvenez-vous avoir vu quelque chose du gouvernement du Canada au sujet de la résistance aux médicaments ou aux antibiotiques au cours des cinq dernières années?

Oui
Non
[NE PAS LIRE] Ne sait pas

AUTRE

31. Avez-vous des antécédents dans le domaine de la santé?

Oui
Non
Ne sait pas
[NE PAS LIRE] Préfère ne pas répondre

32. **[SI LA RÉPONSE EST OUI À LA Q. 31, DEMANDER]** Veuillez préciser vos antécédents. **[NE PAS LIRE LA LISTE, COCHER LA RÉPONSE LA PLUS PERTINENTE.]**

Médecin/chirurgien ou chirurgienne
Adjoint ou adjointe au médecin/personnel infirmier praticien
Personnel infirmier autorisé/personnel infirmier auxiliaire
Pharmacien ou pharmacienne/technicien ou technicienne en pharmacie
Dentiste/hygiéniste dentaire
EMT (technicien ou technicienne en soins médicaux d'urgence)/personnel ambulancier
Thérapeute/chiropraticien ou chiropraticienne/physiothérapeute

Technicien ou technicienne de laboratoire
Conseiller ou conseillère/spécialiste en travail social
Diététiste/nutritionniste
PAB (préposé ou préposée aux bénéficiaires)/aide-soignant ou aide-soignante
Soutien en bureautique/administration (c.-à-d. assistance médicale, réception, secrétariat, assistance administrative)
Gestionnaire
Autre : veuillez préciser
[NE PAS LIRE] Préfère ne pas répondre

DONNÉES DÉMOGRAPHIQUES

Maintenant, j'ai encore quelques questions qui ne seront utilisées qu'à des fins statistiques. Celles-ci nous permettront de comparer les résultats du sondage entre différents groupes de personnes qui ont répondu au sondage. Vos réponses resteront anonymes et confidentielles.

33. Quel est le niveau d'éducation officielle le plus élevé que vous ayez terminé? **[LIRE LA LISTE.]**

Moins d'un diplôme d'études secondaires ou l'équivalent
Diplôme d'études secondaires ou l'équivalent
Certificat ou diplôme d'apprenti inscrit ou d'un autre métier
Certificat ou diplôme d'un collège, d'un cégep ou d'un autre établissement non universitaire
Certificat ou diplôme universitaire inférieur au baccalauréat
Baccalauréat
Diplôme d'études supérieures au-delà du baccalauréat
[NE PAS LIRE] Préfère ne pas répondre

34. Lequel des énoncés suivants décrit le mieux le revenu total de votre ménage de l'année dernière, avant impôts, toutes sources confondues, pour tous les membres du ménage? **[LIRE LA LISTE. N'ACCEPTER QU'UNE SEULE RÉPONSE.]**

Moins de 20 000 $
Entre 20 000 $ et un peu moins de 40 000 $
Entre 40 000 $ et un peu moins de 60 000 $
Entre 60 000 $ et un peu moins de 80 000 $
Entre 80 000 $ et un peu moins de 100 000 $
Entre 100 000 $ et un peu moins de 150 000 $
150 000 $ et plus
[NE PAS LIRE] Préfère ne pas répondre

35. Quelle langue parlez-vous le plus souvent à la maison? **[ACCEPTER TOUTES LES RÉPONSES PERTINENTES.]**

Anglais
Français
Autre : veuillez préciser
[NE PAS LIRE] Préfère ne pas répondre

36. Votre ménage est-il abonné à un service de téléphone à domicile, également connu sous le nom de *ligne fixe*?

Oui
Non
Ne sait pas
[NE PAS LIRE] Préfère ne pas répondre

37. Combien de téléphones portables en état de marche votre ménage possède-t-il?

0
1
2
3
4 ou plus
Ne sait pas
[NE PAS LIRE] Préfère ne pas répondre

38. De façon approximative, quelle est la population actuelle de la collectivité dans laquelle vous habitez?

1 000 000 ou plus
Entre 500 000 et 999 999
Entre 100 000 et 499 999
Entre 50 000 et 99 999
Entre 10 000 et 49 999
Entre 5 000 et 9 999
Moins de 5 000
[NE PAS LIRE] Préfère ne pas répondre

39. Puis-je avoir les trois premiers caractères de votre code postal?

INSCRIRE LES TROIS PREMIERS CARACTÈRES
[NE PAS LIRE] Préfère ne pas répondre

40. Sans tenir compte des circonstances actuelles entourant la pandémie, à quelle fréquence voyagez-vous à l'extérieur du Canada dans des endroits autres que les États-Unis, que ce soit pour affaires ou par plaisir? **[LIRE LA LISTE ET N'ACCEPTER QU'UNE SEULE RÉPONSE.]**

Une fois tous les deux ans
Environ une fois par an
2-3 fois par année
4-5 fois par année
Plus de 5 fois par année
Ne voyage jamais en dehors du Canada, outre les États-Unis
[NE PAS LIRE] Préfère ne pas répondre

C. Phase 3 Research Instruments

Health Canada Antimicrobial Resistance Recruiting Script
February 3, 2022

INTRODUCTION

Hello, my name is **[RECRUITER NAME]**. I'm calling from The Strategic Counsel, a national public opinion research firm, on behalf of the Government of Canada. / Bonjour, je m'appelle **[NOM DU RECRUTEUR].** Je vous téléphone du Strategic Counsel, une entreprise nationale de recherche sur l'opinion publique, pour le compte du gouvernement du Canada.

Would you prefer to continue in English or French? / Préfériez-vous continuer en français ou en anglais?
[CONTINUE IN LANGUAGE OF PREFERENCE]

RECORD LANGUAGE

English **CONTINUE**
French **THANK AND END**

The format is a "round table" discussion, led by an experienced moderator. Participants will be given a cash honorarium in appreciation of their time.

Your participation is completely voluntary and all your answers will be kept confidential. We are only interested in hearing your opinions - no attempt will be made to sell or market you anything. The report that is produced from the series of discussion groups we are holding will not contain comments that are attributed to specific individuals.

But before we invite you to attend, we need to ask you a few questions to ensure that we get a good mix/variety of people in each of the groups. May I ask you a few questions?

Yes **CONTINUE**
No **THANK AND END**

SCREENING QUESTIONS

1. Have you, or has anyone in your household, worked for any of the following types of organizations in the last 5 years?

A market research firm	**THANK AND END**
A marketing, branding or advertising agency	**THANK AND END**
A magazine or newspaper	**THANK AND END**
A federal/provincial/territorial government department or agency	**THANK AND END**
A political party	**THANK AND END**
In public/media relations	**THANK AND END**
In radio/television	**THANK AND END**
No, none of the above	**CONTINUE**

2. In which city do you reside?

3. Were you born in Canada?

Yes **CONTINUE**
No **CONTINUE TO Q3a**
VOLUNTEERED Prefer not to answer **THANK AND END**

3a. How many years have you lived in Canada?

Less than 5 years	**CONTINUE**
5 to <10 years	
10 to <20 years	
20 to <30 years	
30 or more years	
Don't know/Prefer not to answer	**THANK AND END**

ENSURE A GOOD MIX OF TIME LIVED IN CANADA.

4. Do you have any children under the age of 18?

Yes **CONTINUE**
No **THANK AND END FOR GROUP 1, 4, 5 OR 7 - CONTINUE FOR ALL OTHERS**
VOLUNTEERED Prefer not to answer **THANK AND END**

ENSURE A GOOD MIX OF FAMILY COMPOSITIONS WHERE APPLIBALE. GROUPS WITH THOSE AGED 18-34 AND THOSE 55+ MAY SKEW TO NO CHILDREN.

4a. **IF 'YES' AT Q4** Could you please tell me the ages of these children?

ENSURE A GOOD MIX BY AGE AND NUMBER OF CHILDREN IN EACH GROUP.
FOR GROUP 1, 4, 5 OR 7, ENSURE AT LEAST 1 CHILD IS UNDER THE AGE OF 12.

5. Which of the following racial or cultural groups best describes you? (multi-select)

FOR GROUPS 5, 8 OR 12 AIM FOR A MIX OF RACIAL/CULTURAL GROUPS

FOR GROUPS 7, 9 OR 10 AIM FOR A MIX OF ASIAN HERITAGES

FOR GROUPS 1, 4 OR 6 AIM FOR MINIMUM OF 5 INDIGENOUS PARTICIPANTS. ENSURE MIX OF RACIAL/CULTURAL GROUPS IF THE GROUP IS NOT FULLY INDIGNEOUS.

5a. **IF 'INDIGENOUS' AT Q5:** Do you identify as …

First Nations (status or non-status) **CONTINUE FOR GROUP 1, 4 OR 6**
Métis **CONTINUE FOR GROUP 1, 4 OR 6**
Inuit (Inuk) **CONTINUE FOR GROUP 1, 4 OR 6**
None of the above/Prefer not to answer **THANK AND END**

ENSURE A GOOD MIX BY OF DIFFERENT INDIGENOUS GROUPS

6. **DO NOT ASK** Record gender.

AIM FOR A MIX

7. What is your current age?

_____

GROUP 4, 7 AND 10 MUST BE AGE 18-34
GROUP 1, 5 AND 8 MUST BE AGE 35-54
GROUP 6, 9 AND 12 MUST BE AGE 55+
ENSURE A MIX OF AGES WITHIN EACH SPECIFIED RANGE.

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

Grade 8 or less
Some high school
High school diploma or equivalent
Registered Apprenticeship or other trades certificate or diploma
College, CEGEP or other non-university certificate or diploma
University certificate or diploma below bachelor's level
Bachelor's degree
Post graduate degree above bachelor's level
VOLUNTEERED Prefer not to answer **THANK AND END**
ENSURE A GOOD MIX.

9. Which of the following categories best describes your total household income in 2021? That is, the total income of all persons in your household combined, before taxes?

Under $20,000
$20,000 to just under $40,000
$40,000 to just under $60,000

$60,000 to just under $80,000
$80,000 to just under $100,000
$100,000 to just under $150,000
$150,000 and above
VOLUNTEERED Prefer not to answer **THANK AND END**
ENSURE A GOOD MIX.

10. Which of the following best describes your marital status?

Single/Widowed/Divorced/Separated
Married/Common-Law
ENSURE A GOOD MIX.

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

Working full-time, that is, 35 or more hours per week?
Working part-time, that is, less than 35 hours per week?
Self-employed?
Unemployed, but looking for work?
A student attending school full-time?
Retired?
Not in the workforce? [Full-time homemaker, unemployed, not looking for work]
VOLUNTEERED Other – [Do not specify]
VOLUNTEERED Prefer not to answer
ENSURE A GOOD MIX. STUDENTS/UNEMPLOYED/NOT IN WORKFORCE/RETIRED PERSONS SHOULD NOT COMPRISE MORE THAN 3 PARTICIPANTS PER GROUP TOTAL.

12. Which of the following best describes the industry sector that you are currently employed in?

Accommodation and Food Services
Administrative and Support, Waste Management and Remediation Services
Agriculture, Forestry, Fishing and Hunting
Arts, Entertainment and Recreation
Construction
Educational and Childcare Services
Finance and Insurance
Health Care and Social Assistance
Information and Cultural Industries
Management of Companies and Enterprises
Manufacturing
Mining, Quarrying, and Oil and Gas Extraction
Other Services (except Public Administration)
Professional, Scientific and Technical Services
Public Administration
Real Estate and Rental and Leasing
Retail Trade

Transportation and Warehousing
Utilities
Wholesale Trade
Unemployed
Full Time Student **NO INTERNATIONAL STUDENTS**
Retired **ASK 'WHAT SECTOR WERE YOU PREVIOUSLY EMPLOYED IN' AND RECORD**
Other, please specify: _____
ENSURE A GOOD MIX BY TYPE OF EMPLOYMENT FOR EACH GROUP. NO MORE THAN TWO PER SECTOR.

13. Would you be comfortable reading a document and participating in a group discussion in English?

YES **CONTINUE**
NO **THANK AND END**

14. Have you attended a focus group discussion, or participated in an interview or survey, which was arranged in advance and for which you received a sum of money?

YES **CONTINUE**
NO **SKIP TO Q.16**

15. How long ago was that?

Less than 6 months ago **THANK AND END**
More than 6 months ago **CONTINUE**

16. As this group is being conducted online, in order to participate you will need to have high-speed Internet and a computer with a working webcam, microphone and speaker. **RECRUITER TO CONFIRM THE FOLLOWING. TERMINATE IF NO TO ANY.**

Participant has high-speed access to the Internet
Participant has a computer/webcam

17. Have you used online meeting software, such as Zoom, Webex, Microsoft Teams, Google Hangouts/Meet, etc., in the last two years?

Yes **CONTINUE**
No **CONTINUE**

18. How skilled are you at using online meeting platforms on your own, using a scale of 1 to 5, where 1 means you are not at all skilled, and 5 means you are very skilled?

1-2 **THANK AND END**
3-5 **CONTINUE**

19. During the discussion, you could be asked to read or view materials on screen and/or participate in poll-type exercises online. You will also be asked to actively participate online using a webcam. Can you think of any reason why you may have difficulty reading the materials or participating by video?

    <u>TERMINATE</u> IF RESPONDENT OFFERS ANY REASON SUCH AS SIGHT OR HEARING PROBLEM, A WRITTEN OR VERBAL LANGUAGE PROBLEM, A CONCERN WITH NOT BEING ABLE TO COMMUNICATE EFFECTIVELY, ANY CONCERNS WITH USING A WEBCAM OR IF YOU AS THE INTERVIEWER HAVE A CONCERN ABOUT THE PARTICIPANT'S ABILITY TO PARTICIPATE EFFECTIVELY

The next question is creative in nature – please have fun when answering!

20. If you could invite someone to dinner, past or present, who would you invite, and why?

NOTE: RESPONDENTS THAT ARE INVITED TO PARTICIPATE MUST BE ARTICULATE AND ABLE TO EXPRESS THEMSELVES WITH EASE. ALL PARTICIPANTS MUST EXHIBIT REASONABLE ABILITY TO ARTICULATE COHERENT THOUGHTS, IN COMPLETE SENTENCES, AND RESPOND FAIRLY PROMPTLY. PLEASE ENSURE:

- **No recruits who are difficult to understand**
- **No recruits that use one word answers or reply with "I don't know"**
- **Respondents who are enthusiastic and engaged!**

<u>If there is any doubt, PLEASE DON'T RECRUIT!</u>

21. The focus group discussion will be recorded for research purposes only. Do you consent to being recorded?

    YES **CONTINUE**
    NO **THANK AND END**

22. The report that will be prepared based on the discussions may contain anonymous quotations from participants. These quotations will not identify you, but may include comments that you made during the discussion. Do you consent to being quoted anonymously in the report that will be prepared following the groups?

    YES **CONTINUE**
    NO **THANK AND END**

THE
STRATEGIC
COUNSEL

INVITATION TO FOCUS GROUP:
I would like to invite you to a focus group discussion. You will receive a $100 honorarium in appreciation for your time. The discussion will last about 90 minutes and will be held:

INSERT DATE AND TIME OF GROUP BASED ON CHART

We will be calling to verify the information given and will confirm this appointment the day before. May I please have your full name, a telephone number that is best to reach you at, and your e-mail address to send you the details for the group?
Name:
Telephone Number:
E-mail Address:

You will receive an e-mail from **The Strategic Counsel** with the instructions to login to the online group. Should you have any issues logging into the system specifically, you can contact our technical support team at support@thestrategiccounsel.com.

We ask that you are online at least 15 minutes prior to the beginning of the session in order to ensure you are set up and to allow our support team to assist you in case you run into any technical issues.

You may be required to view some material during the course of the discussion. If you require glasses to do so, please be sure to have them handy at the time of the group. Also, you will need pen and paper in order to take some notes throughout the group.

This is a firm commitment. If you anticipate anything preventing you from attending (either home- or work-related), please let me know now and we will keep your name for a future study.
If for any reason you are unable to attend, please let us know as soon as possible at **[1-800-xxx-xxxx]** so we can find a replacement.

Thank you very much for your time.

RECRUITED BY: _____
DATE RECRUITED: _____

THE STRATEGIC COUNSEL

Questionnaire de recrutement
Étude de Santé Canada sur la résistance aux antimicrobiens
3 février 2022

INTRODUCTION

Hello, my name is **[RECRUITER NAME]**. I'm calling from The Strategic Counsel, a national public opinion research firm, on behalf of the Government of Canada / Bonjour, je m'appelle **[NOM DU RECRUTEUR].** Je vous téléphone du Strategic Counsel, une entreprise nationale de recherche sur l'opinion publique, pour le compte du gouvernement du Canada.

Would you prefer to continue in English or French? / Préférez-vous continuer en français ou en anglais?
[CONTINUER DANS LA LANGUE PRÉFÉRÉE]

NOTER LA LANGUE ET CONTINUER

Anglais **REMERCIER ET CONCLURE**
Français **CONTINUER**

La rencontre prendra la forme d'une table ronde animée par un modérateur expérimenté. Les participants recevront un montant d'argent en remerciement de leur temps.

Votre participation est entièrement volontaire et toutes vos réponses seront confidentielles. Nous aimerions simplement connaître vos opinions : personne n'essaiera de vous vendre quoi que ce soit ou de promouvoir des produits. Notre rapport sur cette série de groupes de discussion n'attribuera aucun commentaire à une personne en particulier.

Avant de vous inviter à participer, je dois vous poser quelques questions qui nous permettront de former des groupes suffisamment diversifiés. Puis-je vous poser quelques questions?

Oui **CONTINUER**
Non **REMERCIER ET CONCLURE**

QUESTIONS DE SÉLECTION

1. Est-ce que vous ou une personne de votre ménage avez travaillé pour l'un des types d'organisations suivants au cours des cinq dernières années?

Une société d'études de marché **REMERCIER ET CONCLURE**
Une agence de commercialisation, de marque ou de publicité **REMERCIER ET CONCLURE**
Un magazine ou un journal **REMERCIER ET CONCLURE**
Un ministère ou un organisme gouvernemental fédéral, provincial ou territorial **REMERCIER ET CONCLURE**
Un parti politique **REMERCIER ET CONCLURE**
Dans les relations publiques ou les relations avec les médias **REMERCIER ET CONCLURE**

Dans le milieu de la radio ou de la télévision **REMERCIER ET CONCLURE**
Non, aucune de ces réponses **CONTINUER**

2. Dans quelle ville habitez-vous?
3. Êtes-vous né(e) au Canada?

Oui **CONTINUER**
Non **POSER LA Q3a**
RÉPONSE SPONTANÉE Préfère ne pas répondre **REMERCIER ET CONCLURE**

3a. Depuis combien d'années habitez-vous au Canada?

Moins de 5 ans	**CONTINUER**
5 ans à moins de 10 ans	
10 ans à moins de 20 ans	
20 ans à moins de 30 ans	
30 ans ou plus	
Je ne sais pas/je préfère ne pas répondre	**REMERCIER ET CONCLURE**

BIEN REPRÉSENTER LES PARTICIPANTS EN FONCTION DU NOMBRE D'ANNÉES VÉCUES AU CANADA.

4. Lequel ou lesquels des groupes raciaux ou culturels suivants vous décrivent le mieux? (plusieurs réponses possibles)

VISER UNE COMPOSITION DIVERSIFIÉE SUR LE PLAN DE L'APPARTENANCE AUX GROUPES RACIAUX/CULTURELS

5. **NE PAS POSER LA QUESTION** Noter le sexe.

VISER LA PARITÉ

6. Quel âge avez-vous?

_____

GROUPE 11 : PARTICIPANTS ÂGÉS DE 18 À 34 ANS
GROUPE 2 : PARTICIPANTS ÂGÉS DE 35 À 54 ANS
GROUPE 3 : PARTICIPANTS ÂGÉS DE 55 ANS ET PLUS
BIEN REPRÉSENTER LES ÂGES AU SEIN DE CHAQUE GROUPE.

7. Quel est le niveau de scolarité le plus élevé que vous avez atteint?

École primaire
Études secondaires partielles
Diplôme d'études secondaires ou l'équivalent
Certificat ou diplôme d'apprenti inscrit ou d'une école de métiers
Certificat ou diplôme d'un collège, cégep ou autre établissement non universitaire
Certificat ou diplôme universitaire inférieur au baccalauréat
Baccalauréat
Diplôme d'études supérieur au baccalauréat
RÉPONSE SPONTANÉE : Préfère ne pas répondre
ASSURER UN BON MÉLANGE.

8. Laquelle des catégories suivantes décrit le mieux le revenu annuel total de votre ménage en 2021 – c'est-à-dire le revenu cumulatif de l'ensemble des membres de votre ménage avant impôt?

Moins de 20 000 $
20 000 $ à moins de 40 000 $
40 000 $ à moins de 60 000 $
60 000 $ à moins de 80 000 $
80 000 $ à moins de 100 000 $
100 000 $ à moins de 150 000 $
150 000 $ ou plus
RÉPONSE SPONTANÉE : Préfère ne pas répondre
ASSURER UN BON MÉLANGE.

9. Laquelle des situations suivantes décrit le mieux votre état matrimonial actuel?

Célibataire/ Veuf, veuve/ Divorcé(e)/ Séparé(e)
Marié(e)/Conjoint(e) de fait
ASSURER UN BON MÉLANGE.

10. Laquelle de ces descriptions correspond le mieux à votre situation d'emploi actuelle? Est-ce que…

Vous travaillez à temps plein, soit 35 heures ou plus par semaine?
Vous travaillez à temps partiel, soit moins de 35 heures par semaine?
Vous travaillez à votre compte?
Vous êtes sans emploi, mais cherchez du travail?
Vous êtes aux études à temps plein?
Vous êtes à la retraite?
Vous n'êtes pas sur le marché du travail? [au foyer à temps plein, sans emploi et ne cherchant pas de travail]
RÉPONSE SPONTANÉE Autre – [ne pas préciser]
RÉPONSE SPONTANÉE Préfère ne pas répondre

ASSURER UN BON MÉLANGE. LE NOMBRE TOTAL D'ÉTUDIANTS, DE PERSONNES SANS TRAVAIL, DE PERSONNES QUI NE FONT PAS PARTIE DE LA POPULATION ACTIVE ET DE RETRAITÉS NE DOIT PAS DÉPASSER TROIS PARTICIPANTS PAR GROUPE.

11. Parmi les choix suivants, lequel décrit le mieux le secteur d'activité dans lequel vous travaillez?

Administrations publiques
Agriculture, foresterie, pêche et chasse
Arts, spectacle et loisirs
Autres services, sauf les administrations publiques
Commerce de détail
Commerce de gros
Construction
Extraction minière, exploitation en carrière, et extraction de pétrole et de gaz
Fabrication
Finance et assurances
Gestion de sociétés et d'entreprises
Hébergement et services de restauration
Industrie de l'information et industrie culturelle
Services administratifs, services de soutien, services de gestion des déchets et services d'assainissement
Services d'enseignement
Services immobiliers et services de location et de location à bail
Services professionnels, scientifiques et techniques
Services publics
Soins de santé et assistance sociale
Transport et entreposage
Sans emploi
Aux études à temps plein **PAS D'ÉTUDIANTS ÉTRANGERS**
À la retraite – **DEMANDER : « DANS QUEL SECTEUR TRAVAILLIEZ-VOUS AVANT? » ET NOTER LA RÉPONSE**
Autre situation ou autre secteur; veuillez préciser : _____

ASSURER UN BON MÉLANGE DES TYPES D'EMPLOI DANS CHAQUE GROUPE. PAS PLUS DE DEUX RÉPONDANTS PAR SECTEUR D'ACTIVITÉ.

12. Seriez-vous à l'aise de lire un document et de participer à une discussion de groupe en français?

OUI **CONTINUER**
NON **REMERCIER ET CONCLURE**

13. Avez-vous déjà participé à un groupe de discussion, à une entrevue ou à un sondage organisé à l'avance en contrepartie d'une somme d'argent?

OUI **CONTINUER**
NON **PASSER À LA Q.15**

14. C'était il y a combien de temps?

    Il y a moins de six mois **REMERCIER ET CONCLURE**
    Il y a plus de six mois **CONTINUER**

15. Étant donné que ce groupe se réunira en ligne, vous aurez besoin, pour participer, d'un accès Internet haut débit et d'un ordinateur muni d'une caméra Web, d'un microphone et d'un haut-parleur en bon état de marche. **CONFIRMER LES POINTS CI-DESSOUS. METTRE FIN À L'APPEL SI NON À L'UN DES TROIS.**

    Le participant a accès à Internet haut débit
    Le participant a un ordinateur avec caméra Web

16. Avez-vous utilisé des logiciels de réunion en ligne tels que Zoom, Webex, Microsoft Teams, Google Hangouts/Meet, etc., au cours des deux dernières années?

    Oui **CONTINUER**
    Non **CONTINUER**

17. Sur une échelle de 1 à 5 où 1 signifie que vous n'êtes pas du tout habile et 5 que vous êtes très habile, comment évaluez-vous votre capacité à utiliser seul(e) les plateformes de réunion en ligne?
    1-2 **REMERCIER ET CONCLURE**
    3-5 **CONTINUER**

18. Au cours de la discussion, vous pourriez devoir lire ou visionner du matériel affiché à l'écran, ou faire des exercices en ligne comme ceux qu'on trouve dans les sondages. On vous demandera aussi de participer activement à la discussion en ligne à l'aide d'une caméra Web. Pensez-vous avoir de la difficulté, pour une raison ou une autre, à lire les documents ou à participer à la discussion par vidéo?

CONCLURE L'ENTRETIEN SI LE RÉPONDANT SIGNALE UN PROBLÈME DE VISION OU D'AUDITION, UN PROBLÈME DE LANGUE PARLÉE OU ÉCRITE, S'IL CRAINT DE NE POUVOIR COMMUNIQUER EFFICACEMENT, SI L'UTILISATION D'UNE CAMÉRA WEB LUI POSE PROBLÈME, OU SI VOUS, EN TANT QU'INTERVIEWEUR, AVEZ DES DOUTES QUANT À SA CAPACITÉ DE PARTICIPER EFFICACEMENT AUX DISCUSSIONS.

La prochaine question est de nature créative – amusez-vous en formulant votre réponse!

19. Si vous pouviez inviter une personne du présent ou du passé à dîner, qui serait-ce et pourquoi?

NOTE : LES RÉPONDANTS INVITÉS À PARTICIPER DOIVENT S'EXPRIMER CLAIREMENT ET AVEC AISANCE. ILS DOIVENT POUVOIR FORMULER DES PENSÉES COHÉRENTES, EN FAISANT DES PHRASES COMPLÈTES, ET RÉPONDRE ASSEZ RAPIDEMENT. VEILLER NOTAMMENT À CE QUI SUIT :

- **Ne pas recruter des personnes difficiles à comprendre;**
- **Ne pas recruter des personnes qui répondent par un ou deux mots, ou par « je ne sais pas ».**
- **Recruter des personnes enthousiastes et intéressées!**

En cas de doute, SVP NE PAS RECRUTER!

20. La discussion sera enregistrée, strictement aux fins de la recherche. Est-ce que vous consentez à ce qu'on vous enregistre?

    OUI **CONTINUER**
    NON **REMERCIER ET CONCLURE**

21. Le rapport qui sera préparé à partir des discussions pourrait contenir des citations anonymes provenant des participants. Ces citations ne vous nommeront pas, mais elles pourraient contenir des commentaires que vous avez faits durant la discussion. Est-ce que vous consentez à être cité(e) de façon anonyme dans le rapport qui sera préparé à la suite des discussions?

    OUI **CONTINUER**
    NON **REMERCIER ET CONCLURE**

INVITATION À UN GROUPE DE DISCUSSION :
J'aimerais vous inviter à un groupe de discussion. En remerciement de votre temps, vous recevrez un montant de 100 $. La discussion durera environ 90 minutes et aura lieu :

DONNER LA DATE ET L'HEURE EN FONCTION DU N^{O} DE GROUPE INDIQUÉ DANS LE TABLEAU

Nous vous rappellerons la veille pour confirmer le rendez-vous et les renseignements. Puis-je avoir votre nom complet, le numéro de téléphone où vous êtes le plus facile à joindre et votre adresse électronique, pour vous envoyer tous les détails concernant le groupe de discussion?

Nom :
Numéro de téléphone :
Adresse courriel :

Vous recevrez un courrier électronique du **Strategic Counsel** expliquant comment rejoindre le groupe en ligne. Si la connexion au système vous pose des difficultés, veuillez en aviser notre équipe de soutien technique à : support@thestrategiccounsel.com.

Nous vous prions de vous mettre en ligne au moins 15 minutes avant l'heure prévue, afin d'avoir le temps de vous installer et d'obtenir l'aide de notre équipe de soutien en cas de problèmes techniques. Veuillez également redémarrer votre ordinateur avant de vous joindre au groupe.

Vous pourriez devoir lire des documents au cours de la discussion. Si vous utilisez des lunettes, assurez-vous de les avoir à portée de main durant la rencontre. Vous aurez également besoin d'un stylo et de papier pour prendre des notes.

Ce rendez-vous est un engagement ferme. Si vous pensez ne pas pouvoir participer pour des raisons personnelles ou professionnelles, veuillez m'en aviser dès maintenant et nous conserverons votre nom pour une étude ultérieure. Enfin, si jamais vous n'êtes pas en mesure de participer, veuillez nous prévenir le plus rapidement possible au **[1-800-xxx-xxxx]** pour que nous puissions trouver quelqu'un pour vous remplacer.

Merci de votre temps.

RECRUTEMENT FAIT PAR : _____

DATE DU RECRUTEMENT : _____

MODERATOR'S GUIDE – AMR (FINAL FEB. 23, 2022)

INTRODUCTION (10 MINUTES)

- Tech support to ensure that participants have pen/paper in case they want to jot things down.
- Welcome participants/introduction of moderator
- Explain sponsor and purpose of groups – groups being undertaken on behalf of the Government of Canada (Health Canada/Public Health Agency of Canada) to explore issues relating to the health of Canadians. Specifically, the focus of this discussion is on attitudes towards and use of certain prescription medications.
- Explain video-conference set-up and confidentiality provisions:
    - Videotaping/recording
    - Confidentiality – no attribution of comments to participants
    - Use of first names only, participants' names will not appear in any report
- Explain the format of discussion
    - Free flowing discussion - looking for open, honest responses to questions, not necessarily consensus
    - Discussion will last the full 90 minutes
    - Moderator does not work for Health Canada, the Public Health Agency of Canada or for any company/agency within the healthcare or pharmaceutical sector
- Brief roundtable introductions – tell us a little bit about yourself. It would be of interest to know if any of you, or your immediate family, have had any training as health professionals and/or have worked in the health sector. And, if so, in what capacity? **NOTE TO MODERATOR: DEPENDING ON COMPOSITION OF GROUP, ASK FOR AGES OF CHILDREN, TRAVEL PATTERNS IN A TYPICAL YEAR (E.G., INTERNATIONAL TRAVEL BEYOND U.S. AND TO WHAT PLACES). DOES ANYONE TRAVEL FOR 'HEALTH RELATED REASONS' – TO OBTAIN HEALTH SERVICES OR PRODUCTS? ELABORATE.**
- Please note that throughout the discussion I will mostly be asking you to respond to questions your own experience, but we may also want to get a sense of practices within your household and/or with respect to others you are caring for, including children.

WARM-UP AND AWARENESS/UNDERSTANDING OF ANTIBIOTICS (15 MINUTES)

- Our discussion will focus on the topic of antibiotics. What comes to mind when I use the term antibiotics?
- What are antibiotics and how do they work?
- What are antibiotics most commonly used to treat? **MODERATOR TO BE ATTUNED TO REFERENCES OF BACTERIAL OR VIRAL INFECTIONS. IF 'INFECTION' IS MENTIONED, ASK:** What type of infection? Bacterial or viral? What is the difference between a bacterial and a viral infection? Are these typically treated the same way?
- Overall, how effective do you feel antibiotics are? If not, explain why not?
- What are all the positives/benefits associated with antibiotics?
- And, are there any negatives/risks/downsides associated with antibiotics? Do you have any concerns about antibiotics? Probe for:
    - Where did you hear about this issue?
    - Is there any risk of over-using antibiotics? What about children? Do you feel over-use of antibiotics in children poses any risks or could be harmful in any way? Explain.

USE OF AND EXPERIENCE WITH ANTIBIOTICS (20 MINUTES)

- How many of you, or an immediate family member such as your partner or child, have been prescribed and/or used an antibiotic in the last 5 years? Or ever? **SHOW OF HANDS.**
- What is your experience with your GP or other health professionals in terms of prescribing antibiotics? Do you usually request it?
    - How readily does your GP prescribe antibiotics? Are they reluctant or do they usually issue a prescription quite readily? Does the GP typically counsel you to try other options before being prescribed an antibiotic?
    - Have there been times when you've asked for antibiotics but they were not prescribed? Elaborate. What did your GP say? What was your reaction?
    - Does your GP or pharmacist explain or provide any further information on any adverse effects? If so, what do they tell you?
- I'd like to ask you a few questions about your experience using antibiotics. If you haven't used antibiotics, please respond based on you would respond under the following scenarios. Probe for:
    - How would you react if you/your child had a fever and a cold, and your doctor refused to prescribe antibiotics or counseled you against an antibiotic? How would you react? What would you do?
    - Do you/would you always take the full amount given, or do you think it's sufficient to take them until you start to feel better? What about for children?
    - Would you stop/have you ever stopped taking antibiotics or adjusted the dose during your course of treatment, by yourself or made that decision on behalf of your children? What was the reason for doing so? Does it make sense to do this once you are/your child is starting to feel better?
    - Have you ever used antibiotics that were not prescribed for you specifically? What were the circumstances? For example, if you have antibiotics in your medicine cabinet (leftover from another use) is there any reason why you shouldn't use them if you need them?
    - What do you do with any leftover antibiotics? Do any of you/would you keep leftover antibiotics in case you might need them again? Is it a good idea to keep a stock of antibiotics on hand? What about for your children? Would you share antibiotics among your children (e.g., to avoid having to take your child to the doctor's office (especially during the pandemic), paying for another prescription, etc.)?
    - Are there situations when you feel that you are better off trying to avoid taking an antibiotic until it becomes absolutely necessary? For example, do you/would you start by trying to deal with the situation yourself? What do you typically do? Is there a point you reach when you decide you may need to seek treatment? When is that? Can you describe that for me?
    - Have any of you purchased or brought back prescription or non-prescription antibiotics from abroad? Can you tell me more about what you brought back, where you got it from and why?

AWARENESS AND UNDERSTANDING OF ANTIMICROBIAL RESISTANCE AND RESPONSE (40 MINUTES)

- Have you ever heard of antibiotic resistance? Probe for:
    - What do I mean by this? What is antibiotic resistance?
    - Where have you heard about this?
- What about antimicrobial resistance or AMR?

- **SHOW SCREEN SHARE 1:** Antibiotic resistance happens when bacteria that cause illness become resistant to the antibiotic drugs used to treat them.
- Are you clear from what you've been shown what antibiotic resistance is and how it happens? Is there anything that's confusing? What questions do you have about antibiotic resistance? unclear/confusing?
- Overall, how concerned are you about the issue of antibiotic resistance? Elaborate.
- How relevant is this issue to you personally? How do you see yourself/your family affected by this, if at all? Explain. Probe for:
    - What are the consequences to you/others of antibiotic resistance?
    - Do you think this issue will affect some groups of people more than others? (i.e., sub-groups of the population) If so, which ones? Why do you think that?
    - Do you know of anyone who has been impacted by antibiotic-resistant infections?
- Would you consider antibiotic resistance to be an important global health issue? How important is it compared to other global health issues? Explain. Probe for:
    - To what extent do you feel AMR is an issue in Canada? Or do you feel this is more of an issue in other countries? What countries in particular?
- **CLARIFY FOR PARTICIPANTS:** The World Health Organization (WHO) has declared that antimicrobial resistance or AMR is one of the top 10 global public health threats and requires urgent action. The cost of this issue to national economies is significant in terms of death, disability, prolonged illness resulting in longer hospital stays, the need for more expensive medications and the financial challenges faced by those impacted. Without effective antibiotics, the success of modern medicine in treating infections, including during major surgery and cancer chemotherapy is at increased risk. **NOTE TO MODERATOR: if asked, other threats include air pollution/climate change, non-communicable diseases like diabetes, cancer, heart disease, influenza viruses/pandemics, other high-threat pathogens such as Ebola, vaccine hesitancy, etc.**
- What is your reaction to this statement? Probe for: Have you heard much about this before? If so, from where? Do you find it believable or are you skeptical of this information? Based on this information, do you feel this issue is urgent or not that urgent? Explain.
- What do you feel has contributed most to antibiotic resistance? Probe for: antibiotics used in agricultural sector, over-prescribing by physicians, over-use by patients, travelers bringing resistant bacteria back home
- What do you feel are the consequences if nothing is done to address this issue? Anything?
- I'm going to show you some actions that could be taken to address this issue. Once we have reviewed each, I'd like you to select up to three from the list that you think will make the most difference in terms of addressing the issue of antibiotic resistance. **SHOW SCREEN SHARE 2. CONDUCT POLLING EXERCISE AND DISCUSS RESULTS.**
    - Monitoring physicians' prescribing behaviour and working to educate physicians on better prescribing practices.
    - Instituting a practice of 'delayed prescriptions' – a delayed prescription is intended to be filled in a few days if symptoms do not improve, allowing for lab tests to come back or for a person's body to fight the infection on its own.
    - Providing patients with more information on why an antibiotic isn't being prescribed to them and what they can do instead to feel better (rest, fluids, over-the-counter pain relief medication, etc.)
    - Doing more ourselves to reduce the risk of catching an infection (e.g., washing hands before eating or preparing food, after using the washroom, after coughing or blowing your nose, staying at home when sick, etc.)

  - Using antibiotics more judiciously – only taking them when absolutely needed. Probe for: How do you think this would work? What could we do? How easy or difficult would that be for you/others/your children? Are there any issues or barriers? What would be some of the downsides if we use antibiotics less frequently?
  - Using antibiotics as prescribed – talking to your healthcare provider before using antibiotics, following all treatment directions, not taking any leftover antibiotics or ones that haven't been prescribed for you.
  - Asking more questions about antibiotics of our healthcare providers – Are they really necessary? Is another treatment option available/better? Probe for: Would you feel comfortable doing this with your healthcare provider, or do you feel rushed during visits?
  - Keeping vaccinations up to date – for example, research has shown that young children who receive a pneumococcal vaccine need fewer antibiotics for ear infections than people who are not vaccinated.
  - Traveling abroad less.
- Of the various actions that we've talked about which do you think would have the most impact? Probe for:
  - Is there anything else not on this list that you think would help address this issue?
  - On balance, is this issue one that will mostly be solved by changing physician knowledge/behaviour, patient knowledge/behaviour or both?
- What do people need to know more of or be more educated about in order to help reduce the use of antibiotics and address the issue of antibiotic resistance? What kind of information do people need?
- What's your reaction to the following information? **SHOW SCREEN SHARE 3 AND DISCUSS EACH STATEMENT.** Is this information helpful or not to educating people about the issue of antibiotic resistance? Explain.
  - Estimates show that 1 in 16 Canadians admitted to hospital will develop an infection from a resistant superbug.
  - Data also shows that there has been a five-fold increase in people carrying the bacteria that are resistant to carbapenems which among the most powerful antibiotics that exist?
  - While one unnecessary dose of antibiotics might seem like a small concern, a study from the U.S. suggests that 1-in-4 antibiotics are prescribed in situations where they are definitely not needed, and another 1-in-3 are prescribed for conditions where they may not be needed.
  - Oftentimes, infections caused by bacteria or viruses will go away on their own – 7 out of 10 people feel better within a week, whether or not they use antibiotics for bronchitis, and 9 out of 10 people feel better within one to two weeks, whether or not they use antibiotics for sinus infections.
  - Antibiotics have side effects and can destroy the normal bacteria that make up your microbiome and help keep you healthy.

NOTES TO MODERATOR: Carbapenems are a class of highly effective antibiotic agents used to treat severe or higher risk infections. **Microbiome** refers to the genetic material of all the microbes (bacteria, fungi, protozoa, viruses) that live inside the body. These are both helpful and potentially harmful. Most are symbiotic.

WRAP UP (5 MINUTES)

- What is the one thing that people need to hear to make them more aware of the issue of antibiotic resistance and to prompt them to use antibiotics less frequently?

END SESSION AND THANK PARTICIPANTS.

THE STRATEGIC COUNSEL

GUIDE DE L'ANIMATEUR — RAM
(FINAL – 24 février 2022)

INTRODUCTION (10 MINUTES)

- La personne chargée du soutien technique doit s'assurer que les participant(e)s disposent d'un stylo et de papier pour leur permettre, au besoin, de prendre des notes.
- Souhaiter la bienvenue aux participant(e)s et présenter l'animateur.
- Expliquer qui est le commanditaire et quel est l'objectif des groupes — les groupes sont réalisés pour le compte du gouvernement du Canada (Santé Canada/Agence de la santé publique du Canada) dans le but d'explorer des enjeux liés à la santé des Canadiennes et Canadiens. Plus précisément, cette discussion portera sur les attitudes à l'égard de certains médicaments d'ordonnance et leur utilisation.
- Expliquer le fonctionnement de la visioconférence et les dispositions relatives à la confidentialité :
    - Enregistrement vidéo/audio
    - Confidentialité — aucun commentaire ne sera attribué aux participant(e)s
    - Utilisation des prénoms seulement et aucun nom n'apparaîtra dans le rapport
- Expliquez la forme que prendra la discussion
    - Conversation fluide — nous recherchons des réponses sincères et honnêtes plutôt que de forcément obtenir un consensus
    - La discussion durera la totalité des 90 minutes
    - L'animateur ne travaille pas pour Santé Canada, ni pour L'Agence de la santé publique du Canada, ni pour aucune entreprise ou agence dans le secteur de la santé ou pharmaceutique
- Tour de table afin de se présenter brièvement — parlez-nous un peu de vous. Il serait intéressant de savoir si vous ou un membre de votre famille immédiate avez suivi une formation de professionnel de la santé ou a travaillé dans le secteur de la santé, le cas échéant, à quel titre. **NOTE AU MODÉRATEUR : SELON LA COMPOSITION DU GROUPE, DEMANDEZ L'ÂGE DES ENFANTS, LES HABITUDES DE VOYAGE LORS D'UNE ANNÉE TYPIQUE (PAR EXEMPLE, VOYAGES À L'ÉTRANGER AU-DELÀ DES ÉTATS-UNIS ET VERS QUELLES DESTINATIONS). Y A-T-IL QUELQU'UN QUI VOYAGE POUR DES « RAISONS DE SANTÉ » — POUR OBTENIR DES SERVICES DE SANTÉ OU DES PRODUITS ? VEUILLEZ PRÉCISER.**
- Veuillez noter que tout au long de la discussion, je vais surtout vous inviter à répondre à des questions au sujet de votre propre expérience. Cependant, il est possible que nous veuillions également obtenir un aperçu des pratiques dans votre ménage ou à l'égard d'autres personnes dont vous prenez soin.

ENTRÉE EN MATIÈRE ET CONNAISSANCE/COMPRÉHENSION DES ANTIBIOTIQUES (15 MINUTES)

- Notre discussion portera sur le sujet des antibiotiques. Qu'est-ce qui vous vient à l'esprit lorsque j'utilise le terme antibiotique ?
- Que sont les antibiotiques et de manière générale, comment fonctionnent-ils ?
- Que soigne-t-on le plus souvent avec des antibiotiques ? **L'ANIMATEUR DOIT PRENDRE BONNE NOTE DE SI L'ON FAIT RÉFÉRENCE À DES INFECTIONS BACTÉRIENNES OU VIRALES. SI L'ON MENTIONNE « INFECTION », DEMANDEZ :** Quel type d'infection ? Bactérienne ou virale ? Quelle est la différence entre une infection bactérienne et une infection virale ? Sont-elles généralement traitées de la même manière ?
- Globalement, dans quelle mesure pensez-vous que les antibiotiques sont efficaces ? Si ce n'est pas le cas, expliquez pourquoi.
- Quels sont tous les aspects positifs associés aux antibiotiques ?

- Quels sont tous les aspects négatifs associés aux antibiotiques ? Avez-vous des préoccupations par rapport aux antibiotiques ? Sonder pour :
    - Où avez-vous entendu parler de cette question ?
    - Y a-t-il un risque de surconsommation ou de surutilisation d'antibiotiques ? Qu'en est-il des enfants ? Pensez-vous que la surutilisation d'antibiotiques chez les enfants présente des risques ou pourrait être nuisible de quelque manière que ce soit ? Veuillez expliquer.

UTILISATION ET EXPÉRIENCE AVEC LES ANTIBIOTIQUES (20 MINUTES)

- Combien de personnes parmi vous ou parmi les membres de votre famille immédiate, comme votre conjoint(e) ou votre enfant, se sont fait prescrire ou ont utilisé un antibiotique au cours des 5 dernières années ? Ou même jamais ? **À MAIN LEVÉE.**
- Quelle est votre expérience avec votre médecin généraliste ou d'autres professionnel(le)s de la santé pour ce qui est de se faire prescrire des antibiotiques ? Habituellement, en faites-vous la demande ?
    - Dans quelle mesure votre médecin généraliste est-elle ou est-il disposé à prescrire des antibiotiques ? Y a-t-il une réticence de sa part ou est-ce que d'habitude on vous remet une ordonnance assez facilement ? Ou encore, est-ce que le médecin généraliste vous conseille généralement d'essayer d'autres options avant de vous prescrire un antibiotique ?
    - Avez-vous déjà demandé des antibiotiques, et ils ne vous ont pas été prescrits ? Veuillez préciser. Qu'a dit votre médecin ? Quelle fut votre réaction ?
    - Est-ce que votre médecin généraliste ou votre pharmacien(ne) vous explique ou vous donne des informations supplémentaires sur les effets indésirables ? Si oui, qu'est-ce qu'on vous dit ?
- Je voudrais vous poser quelques questions sur votre expérience quant à l'utilisation des antibiotiques. Si vous n'avez pas utilisé d'antibiotique, veuillez répondre en fonction de ce que serait votre réaction dans les situations suivantes. Sonder pour :
    - Comment réagiriez-vous si vous ou votre enfant aviez une fièvre et un rhume, et que votre médecin refusait de vous prescrire des antibiotiques ou vous déconseillât de recourir à un antibiotique ? Comment réagiriez-vous ? Que feriez-vous ?
    - Prenez-vous toujours la totalité de la quantité qui vous est donnée, ou pensez-vous qu'il est suffisant de les prendre jusqu'à ce que vous vous sentiez mieux ? Qu'en est-il pour les enfants ?
    - Cesseriez-vous ou avez-vous déjà cessé de prendre des antibiotiques ou de rajuster la dose au cours de votre traitement, de votre propre chef ou en prenant cette décision pour vos enfants ? Quelle était votre raison de le faire ? Est-il raisonnable de le faire lorsque vous ou votre enfant commencez à vous sentir mieux ?
    - Avez-vous déjà utilisé des antibiotiques qui ne vous avaient pas été personnellement prescrits ? Quelles étaient les circonstances ? Par exemple, si vous avez des antibiotiques dans votre armoire à pharmacie (des restes qui proviennent d'une utilisation antérieure), y a-t-il une raison pour laquelle vous ne devriez pas les utiliser si vous en avez besoin ?
    - Que faites-vous avec les antibiotiques restants ? Est-ce que certains d'entre vous conservent ou conserveraient des restes d'antibiotiques au cas où vous en auriez à nouveau besoin ? Est-ce une bonne idée de garder une réserve d'antibiotiques à portée de main ? Qu'en est-il pour vos enfants ? Partagez-vous les antibiotiques entre vos enfants (par exemple, pour éviter de devoir emmener votre enfant chez le médecin [surtout pendant la pandémie], de payer pour une autre ordonnance, etc.) ?

- Y a-t-il des situations où vous pensez qu'il vaut mieux essayer d'éviter de prendre un antibiotique jusqu'à ce que cela devienne absolument nécessaire ? Par exemple, est-ce que vous commencez ou commenceriez par essayer de régler la situation vous-même ? Que faites-vous habituellement ? Y a-t-il un point que vous atteignez lorsque vous décidez que vous devez peut-être vous faire soigner ? C'est à quel moment ? Pouvez-vous me décrire ça ?
- Y a-t-il parmi vous des personnes qui ont acheté ou rapporté de l'étranger des antibiotiques sur ou sans ordonnance ? Pouvez-vous m'en dire plus sur ce que vous avez rapporté, où vous l'avez obtenu et pourquoi ?

SENSIBILISATION ET COMPRÉHENSION DE LA RÉSISTANCE AUX ANTIMICROBIENS ET DE LA RÉPONSE À SON ÉGARD (40 MINUTES)

- Avez-vous déjà entendu parler de la résistance aux antibiotiques ? Sonder pour :
  - Qu'est-ce que j'entends par là ? Que signifie la résistance aux antibiotiques ?
  - Où en avez-vous entendu parler ?
- Qu'en est-il de la résistance aux antimicrobiens ou RAM ?
- **AFFICHER LE PARTAGE D'ÉCRAN Nº 1 :** La résistance aux antibiotiques se produit lorsque les bactéries qui causent une maladie deviennent résistantes aux médicaments antibiotiques qui sont utilisés pour les traiter.
- Est-ce clair pour vous, d'après ce qui vous a été montré, ce qu'est la résistance aux antibiotiques et comment elle se développe ? Y a-t-il quelque chose qui prête à confusion ? Avez-vous des questions à propos de la résistance aux antibiotiques ? Pas clair ou prête à confusion ?
- Globalement, dans quelle mesure la question de la résistance aux antibiotiques est-elle préoccupante pour vous ? Préciser.
- Personnellement, dans quelle mesure cette question est-elle pertinente pour vous ? Comment, le cas échéant, voyez-vous cela vous affecter, vous ou votre famille ? Veuillez expliquer. Sondez pour :
  - Quelles sont les conséquences de la résistance aux antibiotiques pour vous et les autres ?
  - Pensez-vous que cette question affectera certains groupes de personnes plus que d'autres ? (C.-à-d., des sous-groupes de la population.) Si oui, lesquels ? Pourquoi pensez-vous cela ?
  - Connaissez-vous quelqu'un qui a été touché par des infections résistantes aux antibiotiques ?
- Diriez-vous que la résistance aux antibiotiques est un problème de santé mondial important ? Quelle est son importance par rapport à d'autres problèmes de santé mondiaux ? Veuillez expliquer. Sonder pour :
  - Dans quelle mesure s'agit-il d'un enjeu au Canada ? Ou pensez-vous qu'il s'agit davantage d'un enjeu dans d'autres pays ? Quels pays précisément ?
- **VEUILLEZ CLARIFIER POUR LES PARTICIPANT(E)S :** L'Organisation mondiale de la santé (OMS) a déclaré que la résistance aux antimicrobiens (RAM) était l'une des dix principales menaces pour la santé publique mondiale et qu'il était urgent d'agir. Les coûts liés à ce phénomène pour les économies nationales sont considérables en ce qui a trait aux décès, aux incapacités, aux durées plus longues de la maladie se traduisant par des séjours prolongés à l'hôpital, au besoin de recourir à des médicaments plus onéreux, et aux difficultés financières pour les personnes touchées. Sans antimicrobiens efficaces, le succès de la médecine moderne dans le traitement des infections, y compris lors des actes chirurgicaux et de la chimiothérapie contre le cancer, serait mis en péril. **NOTE AU MODÉRATEUR : si l'on pose la question, les autres menaces comprennent la pollution atmosphérique et le changement climatique, les maladies non transmissibles comme le diabète, le cancer et les maladies coronariennes, les virus grippaux et les**

pandémies, autres agents pathogènes particulièrement dangereux tels que l'Ebola, la réticence à se faire vacciner, etc.

- Quelle est votre réaction à cette affirmation ? Sonder pour : En aviez-vous déjà entendu parler auparavant ? Si oui, quelle en était la source ? Trouvez-vous cela crédible ou êtes-vous sceptique quant à cette information ? Selon ces informations, diriez-vous que c'est une question urgente ou pas si urgente que ça ? Veuillez expliquer.
- Qu'est-ce qui a le plus contribué, selon vous, à la résistance antibiotique ? Sonder pour : les antibiotiques utilisés dans le secteur de l'agriculture, la surprescription de la part des médecins, la surutilisation chez les patient(e)s, les voyageurs qui rapportent des bactéries à leur retour au pays.
- Quelles sont, selon vous, les conséquences si rien n'est fait pour régler ce problème ? Quelque chose de précis ?
- Je vais vous montrer certaines mesures qui pourraient être prises en réponse à ce problème. Une fois que nous aurons examiné chacune d'entre elles, j'aimerais que vous en choisissiez jusqu'à trois dans la liste qui, selon vous, feront la plus grande différence dans la lutte contre la résistance aux antibiotiques. **AFFICHER LE PARTAGE D'ÉCRAN N° 2. MENER L'EXERCICE DE SONDAGE ET DISCUTER DES RÉSULTATS.**
    - Surveiller le comportement des médecins en matière de prescription et s'engager à éduquer les médecins sur de meilleures pratiques de prescription.
    - Instituer une pratique de « prescriptions différées » — une prescription différée est remplie quelques jours plus tard si les symptômes ne s'améliorent pas, ce qui permet d'obtenir les résultats de tests en laboratoire ou donne un délai suffisant pour que la personne combatte d'elle-même l'infection.
    - Fournir aux patient(e)s plus d'informations sur les raisons pour lesquelles un antibiotique ne leur est pas prescrit et sur ce qui peut plutôt être fait pour mieux se sentir (repos, liquides, médicaments antidouleur en vente libre, etc.).
    - En faire plus nous-mêmes pour réduire le risque de contracter une infection (p. ex., se laver les mains avant de manger ou de préparer des aliments, après avoir été à la toilette, après avoir toussé ou s'être mouché, restez à la maison lorsqu'on est malade, etc.).
    - Utiliser les antibiotiques de manière plus judicieuse — ne les prendre qu'en cas de nécessité absolue. Sonder pour : Selon vous, de quelle façon cela fonctionnerait-il ? Que pourrions-nous faire ? Dans quelle mesure cela serait-il facile ou difficile pour vous, pour vos enfants ou pour d'autres personnes ? Y a-t-il des contraintes ou des obstacles ? Quels seraient les inconvénients d'un recours moins fréquent aux antibiotiques ?
    - Utiliser les antibiotiques tels qu'ils ont été prescrits — consulter son prestataire de soins de santé avant de prendre des antibiotiques, suivre les consignes de traitement, et ne jamais prendre d'antibiotiques restants d'une précédente prescription ou d'antibiotiques qui n'ont pas été prescrits pour soi.
    - Poser plus de questions à son prestataire de soins de santé au sujet des antibiotiques — Sont-ils vraiment nécessaires ? Existe-t-il une autre ou une meilleure option de traitement ? Sonder pour : Vous sentiriez-vous à l'aise de faire cela avec votre prestataire de soins de santé, ou vous sentez-vous bousculé lors des visites ?
    - Garder ses vaccins à jour — à titre d'exemple, la recherche a démontré que les jeunes enfants qui reçoivent le vaccin contre le pneumocoque ont moins besoin d'antibiotiques pour des otites que les enfants non vaccinés.
    - Voyager moins à l'étranger.

- Parmi les différentes mesures dont nous avons parlé, laquelle aurait, selon vous, le plus d'impact ? Sonder pour :
    - Y a-t-il autre chose qui ne figure pas sur cette liste et qui, selon vous, pourrait aider à remédier à ce problème ?
    - Dans l'ensemble, ce problème sera-t-il résolu principalement en modifiant les connaissances ou comportements des médecins, les connaissances ou comportements des patient(e)s, ou les deux ?
- Qu'est-ce que les gens doivent savoir de plus ou à quel sujet doivent-ils être davantage sensibilisés afin d'aider à réduire l'utilisation des antibiotiques et de remédier à la question de la résistance aux antibiotiques ? De quel genre d'information les gens ont-ils besoin ?
- Quelle est votre réaction à l'information suivante ? **AFFICHER LE PARTAGE D'ÉCRAN N^{o} 3 ET DISCUTER DE CHACUN DES ÉNONCÉS.** Ces informations sont-elles utiles ou non pour éduquer les gens sur la question de la résistance aux antibiotiques ? Veuillez expliquer.
    - Il est estimé qu'un Canadien sur 16 admis à l'hôpital contractera une infection causée par une super-bactérie résistante.
    - Les données révèlent également une quintuple augmentation du nombre de personnes porteuses de bactéries résistantes aux carbapénèmes, qui sont parmi les antibiotiques les plus puissants qui existent.
    - Même si une seule dose d'antibiotiques prescrits inutilement peut sembler peu significative, une étude aux États-Unis a démontré qu'un antibiotique sur quatre est prescrit dans des situations où le médicament est décidément inutile et que dans 1 cas sur 3 le médicament est prescrit pour des conditions où il pourrait s'avérer inutile.
    - Bien souvent, les infections causées par des bactéries ou des virus disparaissent d'elles-mêmes — 7 personnes sur 10 se sentent mieux en moins d'une semaine qu'elles aient utilisé des antibiotiques ou non pour combattre une bronchite et 9 personnes sur 10 se sentent mieux en moins d'une ou deux semaines, qu'elles aient pris ou non des antibiotiques pour combattre une infection des sinus.
    - Les antibiotiques produisent des effets secondaires et peuvent détruire les bactéries normales qui constituent le microbiome qui contribue à se tenir en santé.

NOTES AU MODÉRATEUR : Les carbapénèmes sont une classe d'agents antibiotiques hautement efficaces utilisés pour le traitement des infections sévères ou à haut risque. **Le microbiome** est le matériel génétique de tous les microbes (bactéries, champignons, protozoaires, virus) qui vivent à l'intérieur du corps. Ils sont à la fois utiles et potentiellement nuisibles. La plupart sont symbiotiques.

EN CONCLUSION (5 MINUTES)

- S'il y a une chose que les gens doivent entendre pour les sensibiliser à la question de la résistance aux antibiotiques et les inciter à y avoir recours moins fréquemment, quelle est-elle ?

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