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# Survey of Canadians' Knowledge & Behaviour Related to Food Safety

## FINAL REPORT

Prepared for:

Health Canada  
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Ce rapport est aussi disponible en français sur demande

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# EXECUTIVE SUMMARY

## Background and Methodology

It is estimated that there are approximately 11 million cases of food-borne illnesses in Canada every year. Although most individuals fully recover, food-borne illnesses can result in chronic health problems and sometimes even death. The annual cost related to these illnesses, and related deaths, is between 12 and 14 billion dollars.

Health Canada will be developing a comprehensive social marketing strategy to increase awareness and knowledge of the health risks associated with unsafe food handling practices and food-borne illness. The strategy is aimed at influencing awareness, knowledge, attitudes and behaviours of Canadians, particularly “at risk” groups (such as seniors, pregnant women, immuno-compromised individuals, and parents of children under six years of age) to increase the use of safe food handling practices with the long term goal of decreasing the incidence of food-borne illness in Canada.

This study was designed to establish benchmarks that will be used to track the effects of the campaign and provide research intelligence that will assist in the development of evidence based communications strategies and tactics for use during an outbreak of a food-borne illness.

The methodology for the study involved a telephone survey with 1,536 Canadians. Four “at risk” target groups and a general public comparison group were included in the survey. The target groups (and their associated sample size in the survey) were as follows:

- Seniors (aged 65+) (n=304);
- Pregnant women and those who expect to become pregnant within one year (n=300);
- Parents of children under six years of age (n=305);
- Immuno-compromised individuals (n=323); and
- The general public (n=304).

Key findings for the report are summarized below, and are described in more detail in the remainder of this report.

## Survey Findings

### ***Awareness and Knowledge of Food Safety***

Survey results suggest that Canadians are highly confident that they have enough information about food safety and how to protect themselves and their family from food-borne illnesses. Over three in four respondents agree that they have the necessary information in this regard, and only 13 per cent disagree.

Canadians also express high levels of awareness of issues related to food handling, with about three in four indicating they have heard a great deal about proper cooking/ cooling instructions, safe food handling, and proper storage of foods.

Canadians generally respond accurately when presented with a number of questions related to food-borne illness. Over eight in ten correctly believe it is true that most food-borne illnesses can be prevented by cooking food thoroughly, or that certain groups of people are at a greater risk of developing complications from food-borne illnesses. A strong majority also believes it is false that there is very little consumers can do to prevent food-borne illness, and the majority correctly believes it is false that freezing food kills the bacteria that can cause food-borne illness.

However, despite high levels of self-rated confidence and awareness of food safety information, and a fairly good understanding of many food-borne illness issues, other survey findings suggest some gaps in Canadians' knowledge of safe food handling practices. For instance, more than four in ten Canadians believe they can tell if a food can cause food-borne illness by its look, smell or taste. And Canadians are split on whether products are still safe to be consumed after the "best before" date has passed: 52 per cent agree with this idea, and almost the same proportion (47 per cent) disagree.

### ***Food Safety Behaviour***

The survey also explored self-rated food safety behaviour among Canadians. Results suggest that Canadians say they engage in a wide range of safe food practices, with some notable exceptions.

The overwhelming majority of Canadians say they always wash their hands before preparing food, and a clear majority also report always doing so *after* preparing meals. Looking at Canadians' self-rated behaviour with respect to handling leftovers, the findings suggest that the majority of Canadians routinely refrigerate leftover food within two hours of cooking. In addition, most Canadians indicate that they do not keep remaining leftover food after it has been reheated once, and almost eight in ten (79 per cent) say they never freeze food after it has already been completely defrosted.

However, findings are more mixed across some of the other safe food practices examined. Only about one in three Canadians say they never eat eggs with runny yolks, while half say they eat eggs

with runny yolks at least sometimes. Survey results also reveal that most Canadians say they do not wash their reusable grocery bags, and most do not use a food thermometer when cooking food.

Interestingly, results also reveal that the majority of those identified as a high risk group do not consider themselves to be at greater risk for complications from food-borne illness than the average Canadian. A majority in all four “at risk” groups does not believe they are at greater risk than average for complications from food-borne illness.

## **Communications**

In terms of how to best communicate food safety information to Canadians, results reveal that traditional media (such as newspapers, radio, TV or other media) is the primary source of information for food issues among Canadians, followed distantly by websites. However, results reveal some significant variation in responses among the target groups. Pregnant women are much more likely to mention websites as their primary source of information, while a clear majority of seniors say they primarily receive their information on food issues through traditional media.

When asked to indicate their main source of information during an outbreak of a food-borne illness such as listeria, traditional media (such as newspapers, radio and television) again dominate, with nearly three in four Canadians (74 per cent) mentioning these media as their primary source of information.

In terms of the best method to transmit information about food safety, detailed articles and brochures are seen as fairly effective, with a majority of Canadians feeling these methods would be at least somewhat effective in providing information about safe food handling (and seniors are particularly likely to see these methods as effective in this regard).

Social media technologies are not seen as being particularly effective in providing Canadians with information on safe food handling. In fact, the majority of Canadians (56 per cent) believe that social media technologies would *not* be an effective means of providing information on safe food handling. Again, these results vary across the target groups surveyed. These technologies have a great deal more support among pregnant women and parents, while seniors are much less likely to see these technologies as effective in providing information.

## **Conclusions**

Canadians express high levels of self-rated confidence and awareness of food safety information, and a fairly good understanding of many food-borne illness issues, however, survey findings also reveal some gaps in Canadians’ knowledge of safe food handling practices. For instance, many Canadians believe they can tell if a food can cause food-borne illness by its look, smell or taste, and Canadians are split on whether products are still safe to be consumed after the “best before” date has passed.

Results also suggest that while Canadians engage in a wide range of safe food practices, some potentially unsafe food practices are also identified (e.g., eating eggs with runny yolks, not washing reusable grocery bags, not using a food thermometer). Interestingly, across many of these questions, results are fairly consistent between the general public and the “at risk” target groups surveyed.

Survey results further reveal that the majority of those identified as an “at risk” group do not consider themselves to be at greater risk for complications from food-borne illness than the average Canadian. A majority in all four “at risk” groups does not believe they are at greater risk than average for complications from food-borne illness.

These findings suggest that Canadians could benefit from a communications campaign aimed at increasing awareness and knowledge of safe food handling, and that the campaign target the knowledge gaps and potentially unsafe food practices identified through this survey (belief that one can tell if a food is safe by its look, smell or taste, eating eggs with runny yolks, not using a food thermometer, etc.). Results also suggest that those at greater risk of developing complications from food-borne illness require additional information informing them of their high risk status.

In terms of communicating this information to Canadians, results reveal that traditional media (such as newspapers, radio, TV or other media) is the preferred source of food safety information, although significant variation in responses exist among the target groups. Pregnant women are much more likely than the other groups to mention websites as their primary source of food-related information: conversely, a clear majority of seniors say they primarily receive their information on food issues through traditional media.

In terms of the best method to transmit information about food safety, articles and brochures are seen as more effective than social media technologies, however, these results again vary across the target groups surveyed. Social media technologies have a great deal more support among pregnant women and parents, while seniors are far less comfortable with these technologies.

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# SOMMAIRE

## Aperçu général et méthodologie

Il est estimé qu'il y a environ 11 millions de cas de maladies causées par des bactéries d'origine alimentaire au Canada chaque année. Bien que la plupart s'en remettent entièrement, pour certains, les intoxications alimentaires peuvent entraîner des problèmes de santé chroniques et même, parfois, la mort. Les dépenses annuelles associées à ces maladies de même qu'aux décès connexes atteignent entre 12 et 14 milliards de dollars.

Santé Canada met au point une vaste stratégie de marketing social afin d'accroître la sensibilisation et les connaissances entourant les risques que comportent pour la santé la manipulation non sécuritaire des aliments et les maladies d'origine alimentaire. La stratégie cherche à influencer sur la sensibilisation, les connaissances, les attitudes et le comportement des Canadiens, en particulier ceux qui font partie des groupes dits « à risque » (dont les personnes âgées, les femmes enceintes, les immunodéficientes et les parents d'enfants de moins de six ans), afin d'augmenter la prise de mesures sécuritaires dans la manipulation des aliments dans le but, à long terme, de réduire l'incidence des maladies d'origine alimentaire au Canada.

L'étude a été conçue de manière à établir des points de repère qui permettront de surveiller de près les effets de la campagne et de produire aussi bien des renseignements utiles pour l'élaboration de stratégies de communication fondées sur des faits probants que des tactiques à employer lors de l'écllosion d'une maladie d'origine alimentaire.

Pour cette étude, la méthodologie a consisté en un sondage téléphonique auprès de 1536 Canadiens et Canadiennes. Quatre groupes « à risque » étaient visés de même qu'un groupe témoin composé de membres du grand public. Les groupes cibles du sondage (et la taille de leur échantillon) se répartissaient ainsi :

- Personnes âgées (65 ans et plus) (n=304);
- Femmes enceintes ou qui s'attendaient à le devenir dans les 12 mois (n=300);
- Parents d'enfants de moins de six ans (n=305);
- Personnes immunodéficientes (n=323);
- Grand public (n=304).

Les principales observations du rapport sont résumées ci-dessous et décrites plus en détails dans les pages suivantes.

## Observations

### ***Sensibilisation et connaissances en matière de sécurité alimentaire***

Les résultats du sondage laissent entendre que les Canadiens sont fortement persuadés d'avoir toute l'information voulue sur la sécurité alimentaire et la façon de se protéger, eux-mêmes et leur famille, contre les maladies d'origine alimentaire. Plus de trois répondants sur quatre s'accordent à dire qu'ils ont toute l'information nécessaire à cet égard, et ils ne sont que 13 p. 100 à être en désaccord.

Les Canadiens se disent également très sensibles aux enjeux associés à la manipulation des aliments, puisque les trois quarts affirment qu'ils ont beaucoup entendu parler de la marche à suivre pour cuire les aliments et les refroidir, les manipuler en toute sécurité et les conserver de la bonne manière.

De façon générale, les Canadiens répondent correctement à diverses questions portant sur les maladies d'origine alimentaire. Ils sont plus de huit sur dix à penser, avec raison, qu'il est vrai que la plupart des maladies d'origine alimentaire peuvent être évitées grâce à une cuisson à point des aliments ou que certains groupes de personnes risquent plus que d'autres de subir des complications à la suite d'une maladie d'origine alimentaire. Ils sont aussi une forte majorité à penser qu'il est faux de dire que les consommateurs ont très peu de moyens de prévenir les maladies d'origine alimentaire, et ils sont majoritairement d'avis, à juste titre, qu'il est faux de croire que la congélation des aliments tue les bactéries pouvant causer des maladies d'origine alimentaire.

Toutefois, malgré les taux élevés de confiance et de sensibilisation qu'ils s'attribuent quant à leur information touchant la sécurité alimentaire et malgré une assez bonne compréhension de nombreuses questions liées aux maladies d'origine alimentaire, les Canadiens présentent, d'après d'autres observations du sondage, certaines lacunes dans leur connaissance des pratiques sécuritaires pour la manipulation des aliments. Ainsi, plus de quatre Canadiens sur dix croient pouvoir dire, d'après son apparence, son odeur ou son goût, si un aliment risque de causer une intoxication alimentaire. Et les Canadiens sont divisés quant à savoir si les produits peuvent encore être consommés sans danger après leur date de péremption : 52 p. 100 pensent que oui, et ils sont à peu près la même proportion (47 p. 100) à être en désaccord.

### ***Comportement en matière de sécurité alimentaire***

Le sondage s'intéressait aussi au comportement des Canadiens en matière de sécurité alimentaire, selon l'évaluation qu'ils en font eux-mêmes. Il en ressort que les Canadiens affirment avoir adopté une vaste gamme de pratiques sécuritaires dans le domaine de l'alimentation.

Ils sont une majorité écrasante à dire qu'ils se lavent toujours les mains avant de préparer de la nourriture, et une nette majorité à affirmer qu'ils le font toujours également *après* avoir cuisiné. En ce qui concerne le comportement autoévalué des Canadiens à l'égard des restes d'un repas, on observe qu'en majorité, les Canadiens mettent régulièrement au réfrigérateur les restes de nourriture dans les deux heures suivant la cuisson. En outre, la plupart des répondants mentionnent qu'ils ne conservent pas de restes qui

ont été réchauffés une fois, et ils sont près de huit sur dix (79 p. 100) à dire qu'ils ne remettent jamais au congélateur des aliments qui ont déjà été complètement décongelés.

Cependant, les observations sont plus divergentes en ce qui a trait à d'autres pratiques de sécurité alimentaire examinées. Les Canadiens ne sont qu'un sur trois à dire qu'ils ne mangent jamais d'œuf au jaune coulant tandis que la moitié des répondants disent qu'il leur arrive du moins parfois de le faire. Les résultats du sondage révèlent en outre que la plupart des Canadiens déclarent ne pas laver leurs sacs d'épicerie réutilisables et la plupart également ne se servent pas d'un thermomètre pour aliments lorsqu'ils font la cuisine.

Fait intéressant, les résultats montrent aussi que la majorité des personnes qu'on estime faire partie d'un groupe à risque élevé ne croient pas courir un plus grand risque de subir des complications à cause d'une intoxication alimentaire que la moyenne des Canadiens. Dans les quatre groupes dits « à risque », la majorité des membres ne pensent pas être plus exposés que la moyenne à des complications dues à une maladie d'origine alimentaire.

## **Communications**

En ce qui concerne la meilleure façon de communiquer aux Canadiens de l'information sur la sécurité alimentaire, il se dégage des résultats que les médias traditionnels (comme, entre autres, les journaux, la radio et la télévision) constituent pour les Canadiens la principale source d'information en matière d'alimentation, suivis à distance par les sites Web. Par contre, les résultats révèlent de fortes divergences dans les réponses des groupes cibles. Les femmes enceintes sont beaucoup plus susceptibles de mentionner les sites Web comme principale source d'information, tandis que les personnes âgées qui disent obtenir surtout des médias traditionnels leur information sur les questions alimentaires forment une nette majorité.

À l'invitation d'indiquer leur principale source d'information lors de l'écllosion d'une maladie d'origine alimentaire, comme la listériose, ce sont à nouveau les médias traditionnels qui l'emportent (notamment les journaux, la radio et la télévision) puisque près de trois Canadiens sur quatre (74 p. 100) les mentionnent comme leur principale source d'information.

En tant que meilleure méthode pour transmettre de l'information sur la sécurité alimentaire, les articles de fond et les brochures semblent être plutôt efficaces puisque la majorité des Canadiens pensent que ces méthodes seraient tout au moins assez efficaces afin de les renseigner sur la façon sécuritaire de manipuler les aliments (les personnes âgées sont particulièrement portées à juger ces méthodes efficaces à cet égard).

Les Canadiens ne trouvent pas les technologies des réseaux sociaux d'une efficacité particulière comme moyen de leur procurer de l'information sur la manipulation sécuritaire des aliments. En fait, ils sont majoritairement d'avis (56 p. 100) que les technologies des réseaux sociaux ne constituent pas un moyen efficace de renseigner les gens sur la manipulation sécuritaire des aliments. Ici encore, ces

résultats varient selon les groupes cibles sondés. Ces technologies jouissent d'un appui beaucoup plus fort parmi les femmes enceintes et les parents, alors que les personnes âgées sont beaucoup moins susceptibles de les trouver efficaces comme moyen d'information.

## Conclusion

Bien que les Canadiens soient fortement persuadés d'avoir toute l'information voulue sur la sécurité alimentaire, qu'ils se disent sensibilisés à ce sujet et affirment comprendre assez bien plusieurs questions ayant trait aux maladies d'origine alimentaire, ils présentent, d'après d'autres observations du sondage, certaines lacunes dans leur connaissance des pratiques sécuritaires pour la manipulation des aliments. Par exemple, bon nombre de Canadiens croient pouvoir dire, d'après son apparence, son odeur ou son goût, si un aliment risque de causer une intoxication alimentaire. Et les Canadiens sont divisés quant à savoir si les produits peuvent encore être consommés sans danger après leur date de péremption.

Les résultats laissent aussi entendre que si les Canadiens adoptent toute une gamme de mesures sécuritaires en alimentation, on peut aussi observer des habitudes qui risquent d'être dangereuses (p. ex., manger des œufs au jaune coulant, ne pas laver les sacs d'épicerie réutilisables, ne pas se servir de thermomètre à aliments). Il est intéressant de voir, pour plusieurs de ces questions, des résultats assez semblables entre le grand public et les groupes « à risque » du sondage.

Les résultats du sondage révèlent de plus que la majorité des personnes qu'on estime faire partie d'un groupe à risque élevé ne croient pas courir un plus grand risque de subir des complications à cause d'une maladie d'origine alimentaire que la moyenne des Canadiens. Dans les quatre groupes dits « à risque », une majorité relative des membres ne pensent pas être plus exposés que la moyenne à des complications dues à une maladie d'origine alimentaire.

Il se dégage de ces observations que les Canadiens pourraient tirer avantage d'une campagne de communication destinée à mieux les sensibiliser à la manipulation sécuritaire des aliments et à accroître leurs connaissances dans ce domaine, et que cette campagne devrait cibler les lacunes dans les connaissances et les pratiques douteuses qui sont ressorties du sondage (l'impression qu'on peut savoir si un aliment est sécuritaire d'après son apparence, son odeur ou son goût, la consommation d'œufs au jaune coulant, le fait de ne pas se servir d'un thermomètre à aliments, etc.). Les résultats montrent en outre que les personnes les plus à risque de subir des complications en cas de maladie d'origine alimentaire ont besoin d'un supplément d'information pour qu'elles comprennent qu'elles sont en situation de risque élevé.

Afin de communiquer ces renseignements aux Canadiens, ce sont, comme en témoignent les résultats, les médias traditionnels (entre autres, les journaux, la radio et la télévision) qui constituent la source d'information préférée sur la sécurité alimentaire, malgré une variation assez marquée des réponses entre les groupes cibles. Les femmes enceintes sont beaucoup plus susceptibles que les membres des autres groupes de mentionner les sites Web comme leur principale source d'information alimentaire : par

contre, les personnes âgées sont une nette majorité à affirmer que leur information sur les questions alimentaires leur provient des médias traditionnels.

Pour ce qui est de la meilleure méthode pour transmettre des renseignements sur la sécurité alimentaire, les articles et les brochures sont perçus comme plus efficaces que les technologies des médias sociaux bien que, ici encore, ces résultats varient selon les groupe cibles interrogés. Les technologies des médias sociaux ont beaucoup plus d'appui parmi les femmes enceintes et les parents tandis que les personnes âgées se sentent beaucoup moins à l'aise devant ces technologies.

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Pour de plus amples renseignements sur cette étude, prière d'adresser un courriel à [por-rop@hc-sc.gc.ca](mailto:por-rop@hc-sc.gc.ca)



# 1. INTRODUCTION

## 1.1 BACKGROUND

Over the past 25 years, modern age and technology has changed the way food is grown, processed, packaged and delivered. Many people play a vital role in keeping food safe, and the consumer has a key role to play in preventing food-borne illness through the way they handle and prepare food.

It is estimated that there are approximately 11 million cases of food-borne illnesses in Canada every year. Many cases are not reported, however, as people who experience food poisoning mistake their symptoms for a 24-hour flu.

Although most individuals fully recover, food-borne illnesses can result in chronic health problems and sometimes even death. Illnesses such as chronic arthritis and hemolytic uremic syndrome (HUS) leading to kidney failure, have long-term consequences for the affected individual and for the economy and society as a whole. The annual cost related to these illnesses, and related deaths, is between 12 and 14 billion dollars.

Health Canada will be developing a comprehensive social marketing strategy to increase awareness and knowledge of the health risks associated with unsafe food handling practices and food-borne illness. The strategy is aimed at influencing awareness, knowledge, attitudes and behaviours of Canadians, particularly “at risk” groups (such as seniors, pregnant women, immuno-compromised individuals, and parents of children under six years of age) to increase the use of safe food handling practices with the long term goal of decreasing the incidence of food-borne illness in Canada.

## 1.2 SURVEY OBJECTIVES AND METHODOLOGY

This study was designed to establish benchmarks that will be used to track the effects of the campaign and provide research intelligence that will assist in the development of evidence based communications strategies and tactics for use during an outbreak of a food-borne illness. The study will provide Health Canada and PHAC with research-based information on the public’s knowledge, attitudes and behaviours with regards to food-borne illness and food safety.

The methodology involved a telephone survey with 1,536 Canadians. The margin of error for a sample of this size is +/-2.5 percentage points, 19 times out of 20. The margin of error for the various target audiences surveyed are displayed on the following page.

Four “at risk” target groups and a general public comparison group were included in the survey. The target groups (and their associated sample size in the survey) were as follows:

- Seniors (aged 65+) (n=304, margin of error of +/- 5.6 percentage points, 19 times out of 20);
- Pregnant women and those who expect to become pregnant within one year (n=300, margin of error of +/- 5.7 percentage points, 19 times out of 20);
- Parents of children under six years of age (n=305, margin of error of +/- 5.6 percentage points, 19 times out of 20);
- Immuno-compromised individuals, including: individuals with primary immunodeficiency diseases (i.e., inherited genetic diseases; individuals with chronic illnesses (e.g., different types of cancer, renal disease, diabetes, etc.); individuals with chronic infections (e.g., HIV/AIDS); patients using immunosuppressive post-transplant medications, anti-inflammatory steroids, chemotherapy, radiation; patients receiving gastric acid inhibitors; and individuals who are severely malnourished (n=323, margin of error of +/- 5.5 percentage points, 19 times out of 20); and
- The general public (n=304, margin of error of +/- 5.6 percentage points, 19 times out of 20).

Older Canadians and the general public were contacted using traditional Random Digit Dialling (RDD). The low incidence and difficult to reach populations (i.e., pregnant women, parents of children under six years of age, and immuno-compromised individuals) were contacted using our randomly recruited panel, *Probit*. Our panel offers complete coverage of the Canadian population (i.e., internet, cellphone, and landline connection); random recruitment (in other words, participants do not self-select into our panel); and equal probability sampling (meaning that results are generalizable to the broader population). All of our panel members are recruited by telephone using RDD and are confirmed by live interviewers.

*Probit* was used for this project for a number of reasons. Firstly, because we already have an established relationship with everyone in the panel, it helped to minimize the time and cost associated with trying to contact the low incidence populations surveyed. Second, there is some sensitivity associated with screening members of the general public into this survey (e.g., asking people about their health status, whether they have children, or their intentions to get pregnant could be considered by many to be very personal information). The use of *Probit* helped alleviate some of these issues, as members are already familiar with EKOS and the research we conduct.

The survey was conducted from January 13 to January 28, 2010. The response rate for this study was 22.2 per cent (the call disposition table is displayed in Appendix A). The final English and French questionnaires are included in Appendix B.

The remainder of this report outlines results from the survey. Similarities and differences among the various target groups are described throughout the report.



## 2. GENERAL PERCEPTIONS

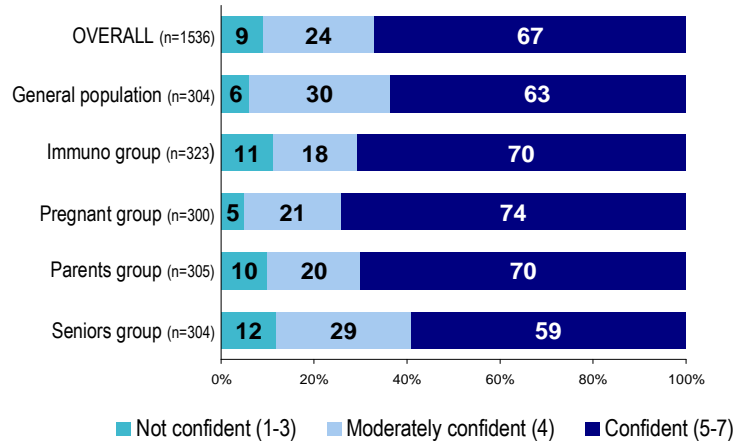
### 2.1 CONFIDENCE IN FOOD SAFETY SYSTEM

All respondents were first asked to rate their confidence in Canada's food safety system. Results reveal that Canadians' confidence in the food safety system is quite high, with more than two in three (67 per cent) expressing confidence in Canada's food safety system, and only nine per cent expressing little confidence in the safety of food.

The overall reported confidence in Canada's food safety system varies somewhat across the target groups included in the survey. Those who are pregnant or expect to become pregnant within the year (74 per cent) express the highest levels of confidence, while seniors express the least confidence in Canada's food safety system (59 per cent).

#### Confidence in Food Safety System

"How confident would you say you are right now in Canada's food safety system?"



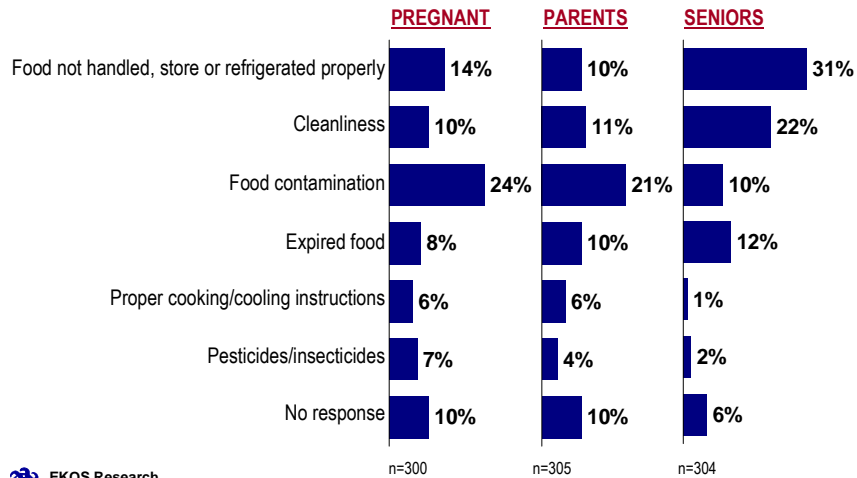
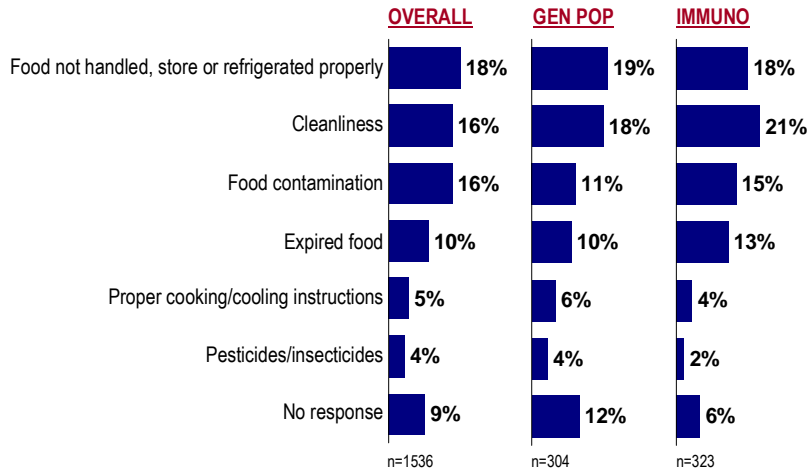
## 2.2 MOST IMPORTANT FOOD SAFETY CONCERNS

Survey respondents were asked to indicate, through an open-ended question, which food safety concerns they feel are most important in their home. While no one issue dominates, proper food handling (18 per cent), cleanliness (16 per cent), and food contamination (16 per cent) top the list of food safety concerns in the home. All other responses are mentioned by 10 per cent or fewer respondents.

However, these results vary somewhat among the target audiences. Food contamination is seen as the primary concern among pregnant women (24 per cent) and parents (21 per cent); while food handling and cleanliness are lower order concerns among these groups. Seniors are more likely than other groups to cite proper food handling/storage/refrigeration (31 per cent) and cleanliness (22 per cent) as their top concerns.

## Most Important Food Safety Concerns

“When you think of food safety concerns in your home, which one do you consider to be the most important?” [Open]

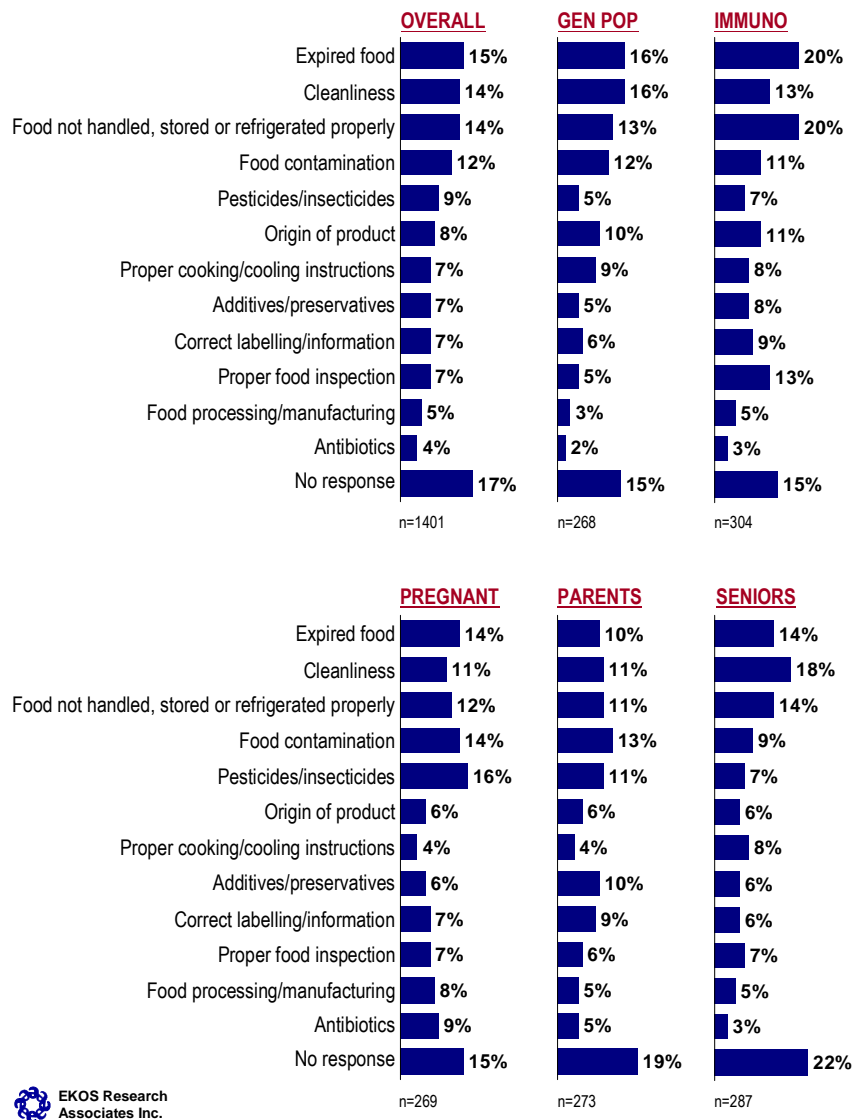


Respondents were also asked to indicate any other food safety issues that are important to them. Again, no one issue predominates among secondary issues, however, cleanliness (14 per cent) and proper food handling (14 per cent) figure prominently. Expired food (a primary concern for just one in ten) increases in importance as a secondary concern (15 per cent). Food contamination (12 per cent) is again among the top four concerns. All other concerns are mentioned by fewer than one in ten Canadians.

Results are largely similar across the target groups, although food expiration and food handling rank slightly higher as secondary concerns for immuno-compromised Canadians, while pesticides/insecticides are slightly more prevalent as a secondary concern among pregnant women.

## Secondary Food Safety Concerns

“And what other food safety issues are important to you?” [Open]



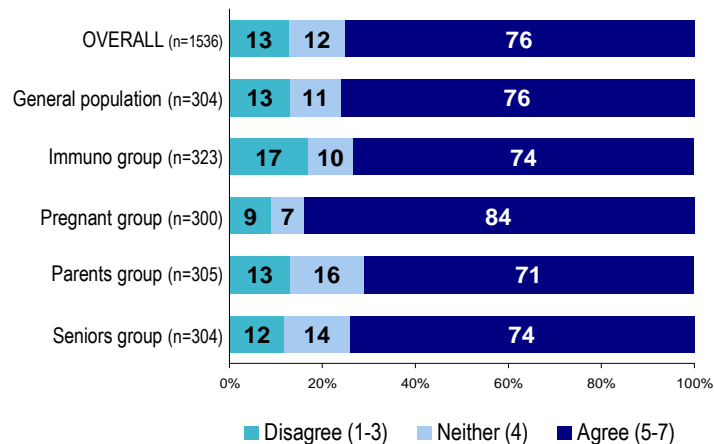
## 2.3 CONFIDENCE IN AMOUNT OF INFORMATION ABOUT FOOD SAFETY

Surveys results suggest that Canadians are highly confident that they have enough information about food safety and how to protect themselves and their family from food-borne illnesses and food poisoning. Over three in four respondents (76 per cent) agree that they have the necessary information in this regard, and only 13 per cent disagree that this is the case (12 per cent does not provide an opinion on this issue).

The overall finding is fairly consistent across the target groups with the exception of pregnant women who are particularly likely to agree that they have sufficient information about food safety (84 per cent).

### Confidence in Amount of Information About Food Safety

**“I feel I have enough information about food safety and how to protect myself and my family from food-borne illness/food poisoning.”**





## 3. AWARENESS AND KNOWLEDGE

### 3.1 AWARENESS OF FOOD RELATED SUBJECTS

In an effort to better understand perceptions of specific food related subjects, respondents were presented with a number of issues dealing with food handling and food-borne illnesses and asked to indicate their level of awareness of each.

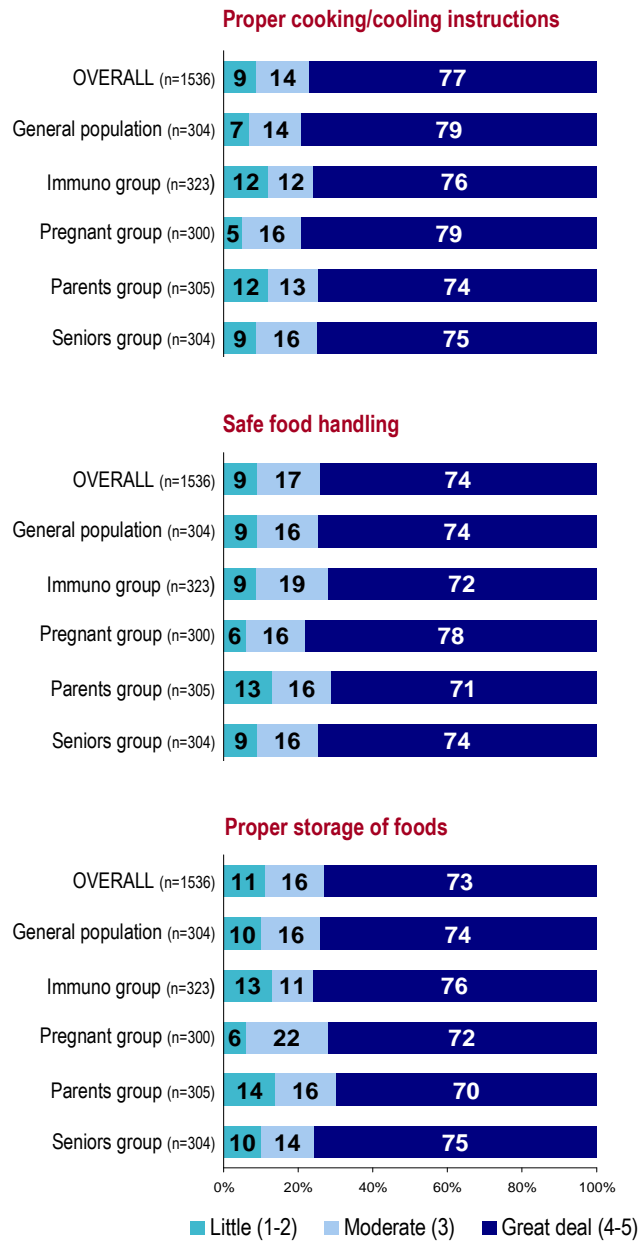
Overall, Canadians indicate having a great deal of awareness of issues related to food handling, with about three in four indicating high levels of awareness regarding proper cooking/cooling instructions (77 per cent), safe food handling (74 per cent) and proper storage of foods (73 per cent).

Awareness of food-borne illness (both generally and in relation to listeria) is lower. Roughly six in ten Canadians indicate a high level of awareness of listeria (60 per cent) or food-borne illness generally (59 per cent).

Findings among the various target groups for issues dealing with food handling are quite consistent; both the general population and “at risk” groups are on par with the overall findings. However, there is greater variation in awareness among target groups for issues relating to food-borne illnesses. Awareness of listeria specifically (69 per cent) and food-borne illness generally (67 per cent) is higher among the immuno-compromised. Self-rated awareness of listeria is lower among Canadians in the general population (53 per cent) while awareness of food-borne illness in general is lower among Canadian parents (51 per cent).

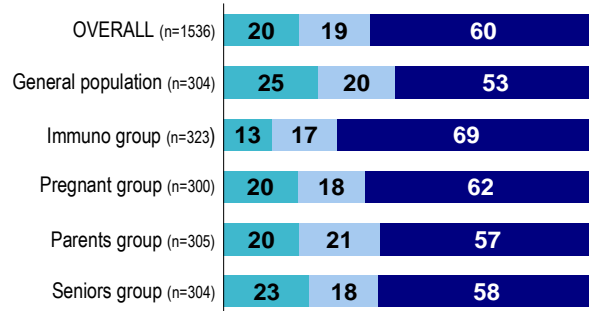
## Awareness of Food Related Subjects

“How much have you heard about the following food related subjects?”

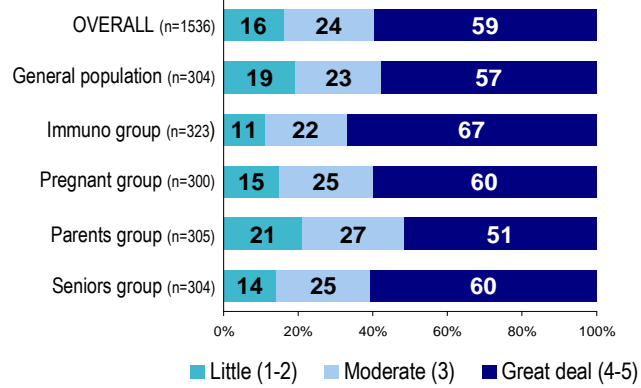




**Listeria**



**Food-borne illness**



## 3.2 KNOWLEDGE OF FOOD-BORNE ILLNESS ISSUES

A more in-depth set of food safety awareness questions was also posed to Canadians. Respondents were asked to indicate whether a series of statements on food handling and food-borne illness were true or false.

Overall, across most of these questions, Canadians respond accurately when presented with true/false statements related to food-borne illness. For example, over eight in ten correctly believe it is true that most food-borne illnesses can be prevented by cooking food thoroughly (85 per cent), or that certain groups of people are at a greater risk of developing complications from food-borne illnesses (84 per cent).

A strong majority also believes it is false that there is very little consumers can do to prevent food-borne illness (86 per cent). And, the majority correctly believes it is false that freezing food kills the bacteria that can cause food-borne illness (76 per cent).

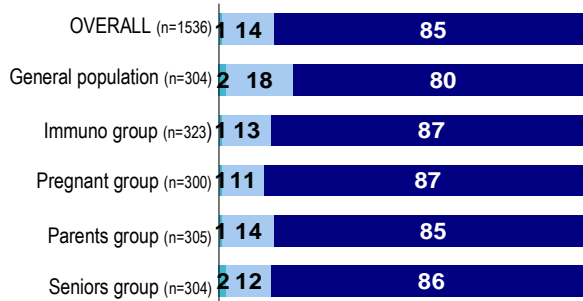
However, Canadians are much less clear on whether one can tell if a food can cause food-borne illness by its look, smell or taste. More than half (55 per cent) correctly believes this to be false, however, over four in ten (43 per cent) believe this to be true.

Responses to the questions are generally consistent across the specific target groups with some notable exceptions. The belief that most food-borne illnesses can be prevented by cooking food thoroughly is true is slightly higher among the “at risk” groups than among the general population. The general population is also less likely than the target groups to correctly feel it is false that one can tell if food can cause food-borne illness by its look, smell or taste. And while majorities across the target groups believe it is false that freezing food kills the bacteria that can cause food-borne illness, there is a slightly higher tendency among the immuno-compromised and seniors groups to inaccurately believe this is true (23 per cent indicating “true” in both groups).

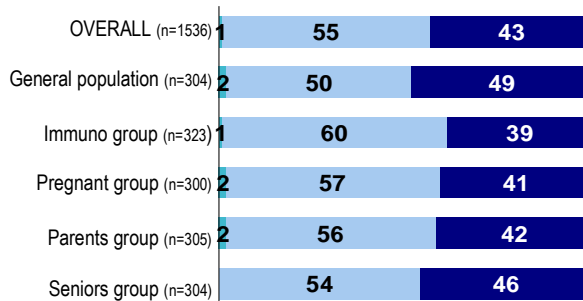
## Knowledge of Food-Borne Illness Issues

“Please indicate whether or not you believe the following statements about food-borne illness to be mostly true or mostly false.”

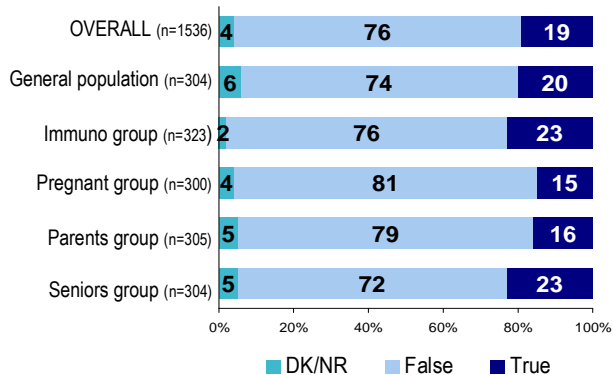
### Most food-borne illnesses can be prevented by cooking food thoroughly



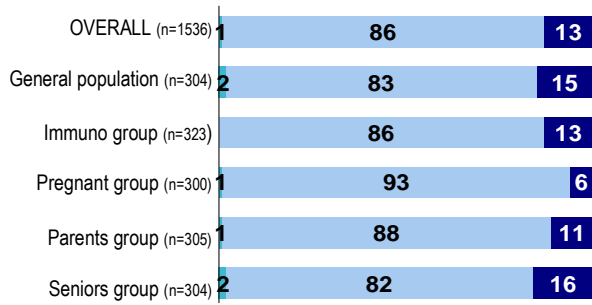
### You can tell if a food may cause food-borne illness by its look, smell or taste



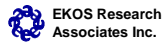
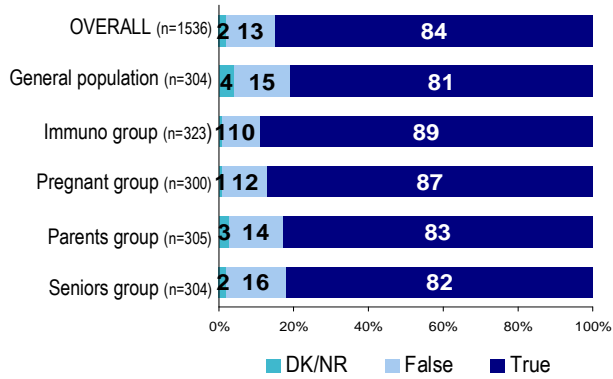
### Freezing food kills the bacteria that can cause food-borne illness



**There is very little consumers can do to prevent food-borne illness**



**Certain groups of people are at a greater risk of developing complications from food-borne illness.**

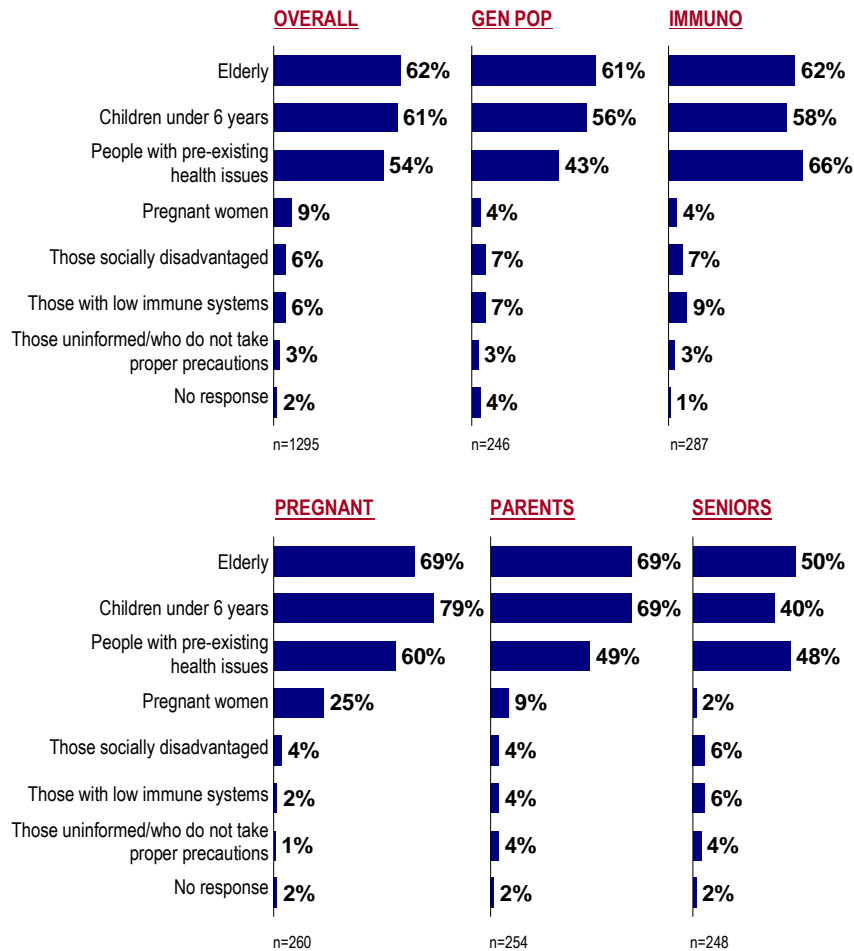


### 3.3 GROUPS AT GREATER RISK

Those that believe it is true that certain groups are at a greater risk of developing complications from food-borne illness were asked, unprompted, which groups they feel are at greater risk. Roughly six in ten believe that the elderly (62 per cent) and children under six years of age (61 per cent) are at greater risk, while a slightly smaller majority (54 per cent) believe those with pre-existing health issues are at greater risk of developing complications from food-borne illness. All other groups are seen as being at a greater risk by less than ten per cent of these respondents.

#### Groups at Greater Risk

[IF TRUE] “Which groups of people do you think would be at greater risk?” [Open]



These results vary somewhat across the target groups. Immuno-compromised individuals and pregnant women are more likely than others to believe that those with pre-existing health issues are at greater risk, while those in the general population are least likely to feel this way. Parents and pregnant women are more likely to believe that the elderly and children under six years of age are at greater risk of food-borne illness; and pregnant women are also significantly more likely to cite themselves as being at risk (25 per cent). Seniors, on the other hand, are least likely to see the elderly as being at greater risk of developing complications from food-borne illness; they are also least likely to believe that children under six years old are at greater risk.

### 3.4 PERCEPTIONS REGARDING RISK OF FOOD-BORNE ILLNESS ASSOCIATED WITH VARIOUS FOODS

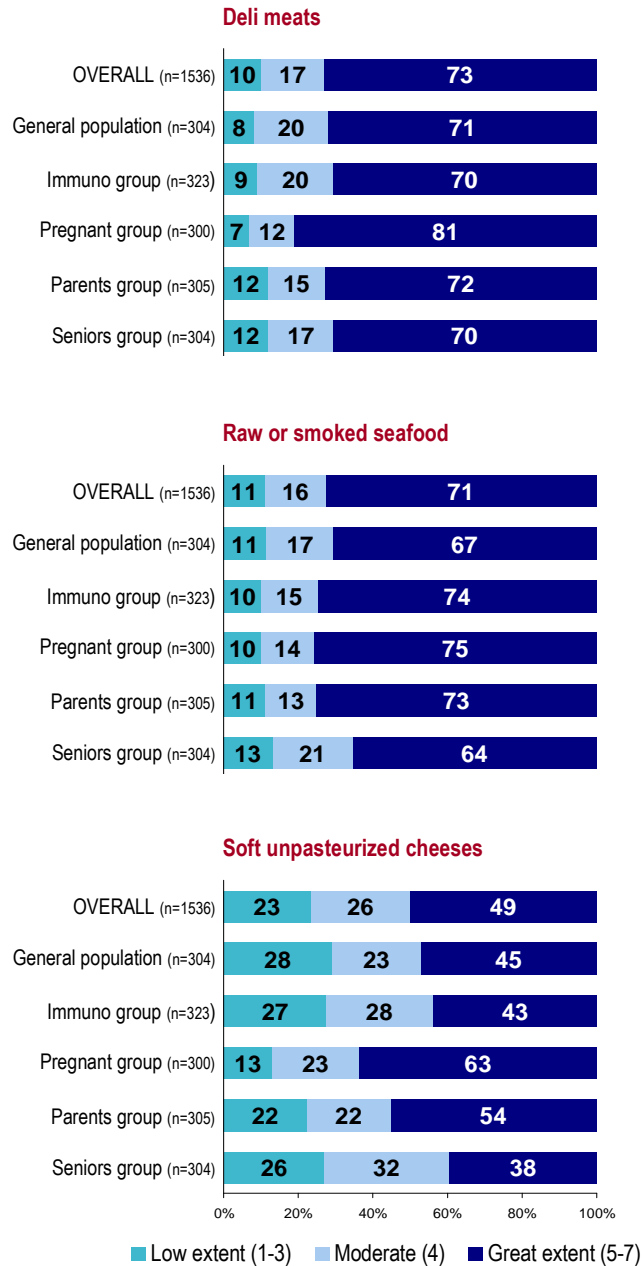
Canadians were presented with a number of food items and asked to indicate to what extent they believed that these foods carried an increased risk of being contaminated by bacteria, viruses or parasites linked to food-borne illnesses. Results vary significantly depending on the food examined.

A clear majority of Canadians feel that deli meats (73 per cent) and raw or smoked seafood (71 per cent) carry an increased risk of being affected by contaminants that cause food-borne illness. However, concern is much lower for the other foods tested. Just under half of Canadians (49 per cent) believe that soft, unpasteurized cheeses and unpasteurized juices carry a high risk of food-borne illness. Frozen chicken nuggets are seen as posing a risk of food-borne illness to a great extent by just under four in ten Canadians (38 per cent). Pasteurized milk is correctly not perceived as a high risk for food-borne illness by most Canadians: only one in five (18 per cent) believe this is the case. Similarly, fewer than one in six (15 per cent) wrongly believe hard cheeses pose a risk of food-borne illness to a great extent .

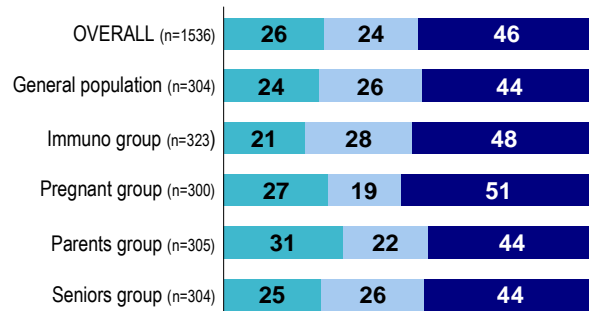
Overall findings are generally consistent across the target groups with some variations. Seniors are somewhat less likely than other groups to see raw or smoked seafood as a high risk, and those in the immuno-compromised group are less likely than others to see pasteurized milk as a high risk food. Pregnant women are more likely than those in other groups to perceive deli meats and soft unpasteurized cheeses as being a high risk, while parents are slightly more likely to see frozen chicken nuggets as posing a high risk.

## Perceptions Regarding Risk of Food-Borne Illness Associated with Various Foods

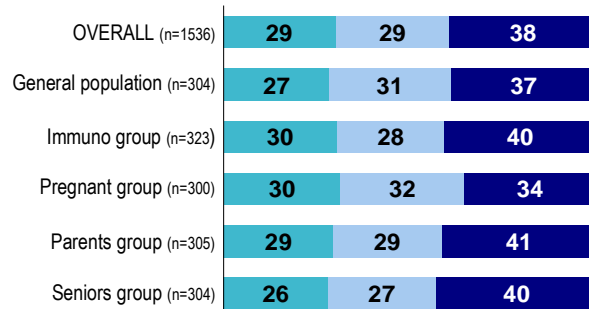
“To what extent do ... carry an increased risk of being contaminated by  
bacteria, viruses or parasites linked to food-borne illness?”



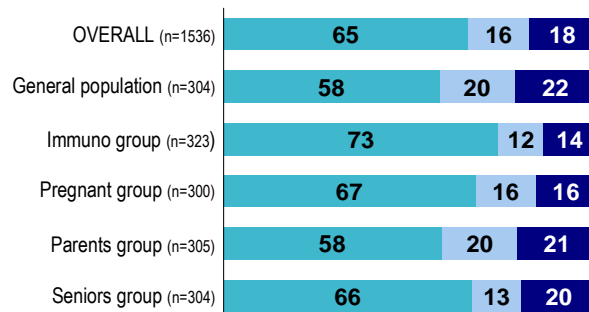
### Unpasteurized juices



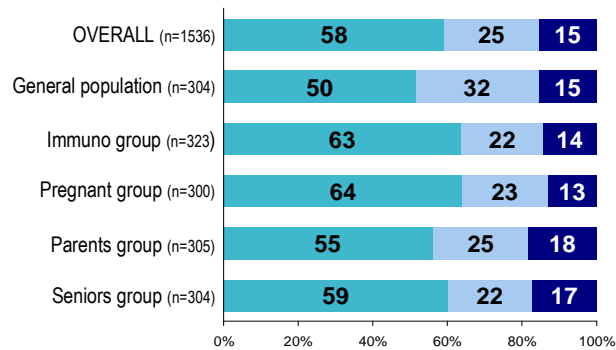
### Frozen chicken nuggets



### Pasteurized milk



### Hard cheeses



0% 20% 40% 60% 80% 100%  
 ■ Low extent (1-3) ■ Moderate (4) ■ Great extent (5-7)





## 3.5 KNOWLEDGE OF MINIMUM SAFE INTERNAL COOKING TEMPERATURE

In order to better understand public perceptions of safe cooking temperatures, Canadians were presented with a number of different meats (pork, whole poultry, ground meat/meat mixtures, and poultry parts) and asked to indicate what they believed the minimum safe internal cooking temperature to be for each of these foods.

Overall, awareness of the recommended safe internal temperatures for each of these foods is low. Across all the types of meats tested, roughly four in ten respondents are unable to provide a response.

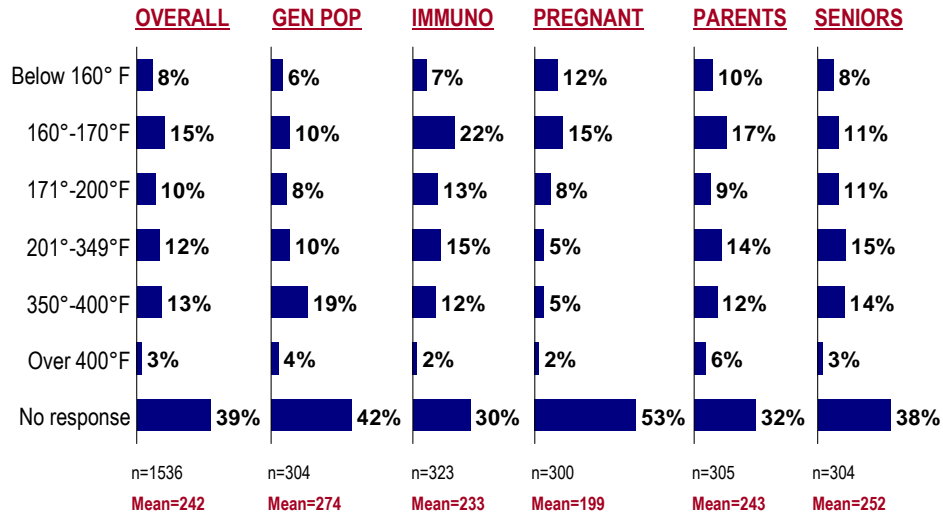
Results also suggest that Canadians are greatly overestimating the minimum safe internal cooking temperature of foods. When asked about pork, the average temperature provided by Canadians is 242° Fahrenheit (116° Celsius), significantly higher than the recommended 160° F (71° Celsius). The same holds true of perceptions of the recommended internal temperature of whole poultry. The average temperature provided by Canadians is 262° F (128° C); significantly higher than the recommended 185° F (85° C).

Canadians also tend to overestimate the appropriate internal cooking temperature for ground meat/meat mixtures – the average temperature provided is 248° F (120° C), significantly higher than the recommended 160° F (71° C), and poultry parts – average temperature estimated is 256° F (124° C), substantially higher than the recommended 165° F (74° C).

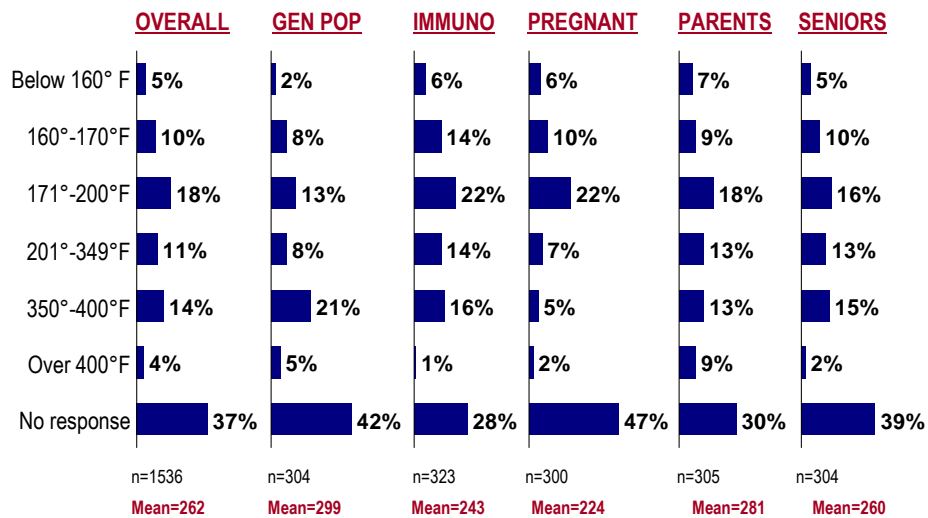
While the overall finding generally holds true across target groups, there is one variation worth noting. Pregnant women are less likely, for all four types of meats, to provide a response to the question. However, among pregnant women that do provide a response, there is less of a tendency to overestimate.

## Knowledge of Minimum Safe Internal Cooking Temperature

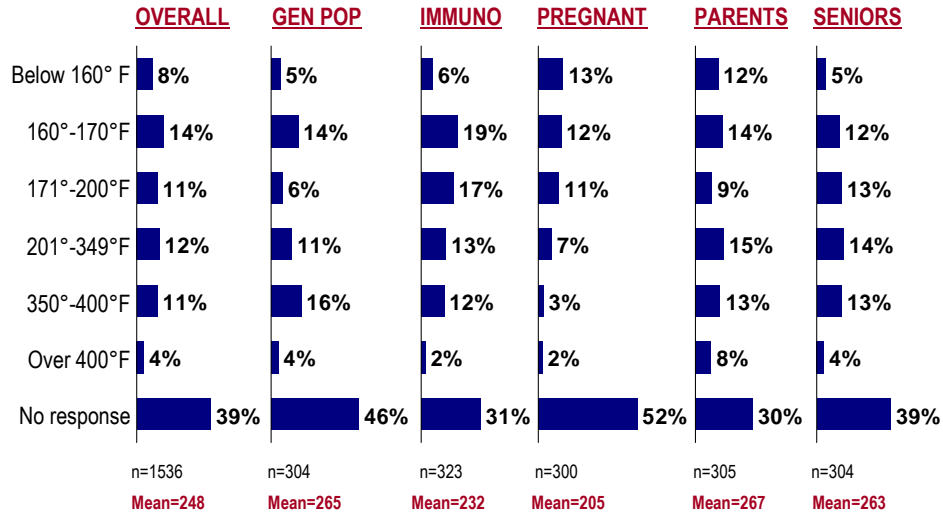
“To the best of your knowledge, what is the minimum safe internal cooking temperature for each of the following foods... **PORK?**”



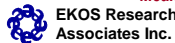
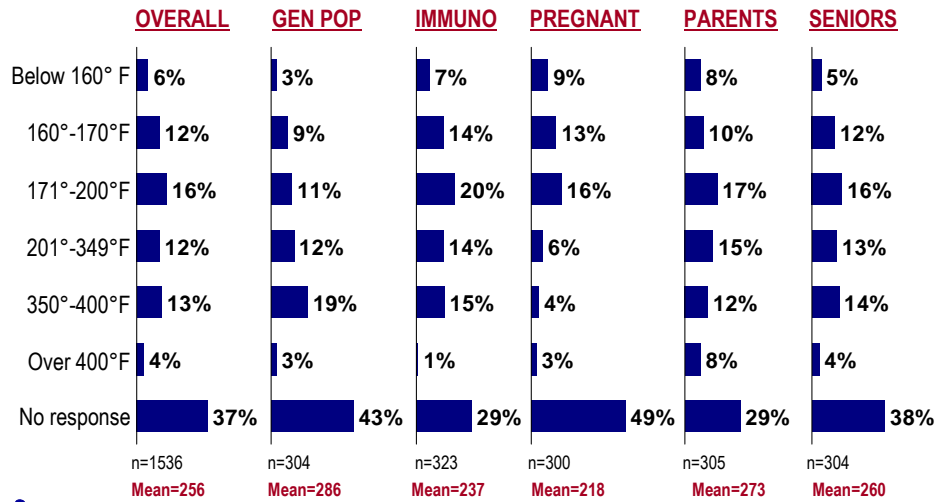
“To the best of your knowledge, what is the minimum safe internal cooking temperature for each of the following foods... **WHOLE POULTRY?**”



**“To the best of your knowledge, what is the minimum safe internal cooking temperature for each of the following foods... **GROUND MEAT & MEAT MIXTURES?**”**



**“To the best of your knowledge, what is the minimum safe internal cooking temperature for each of the following foods... **POULTRY PARTS?**”**



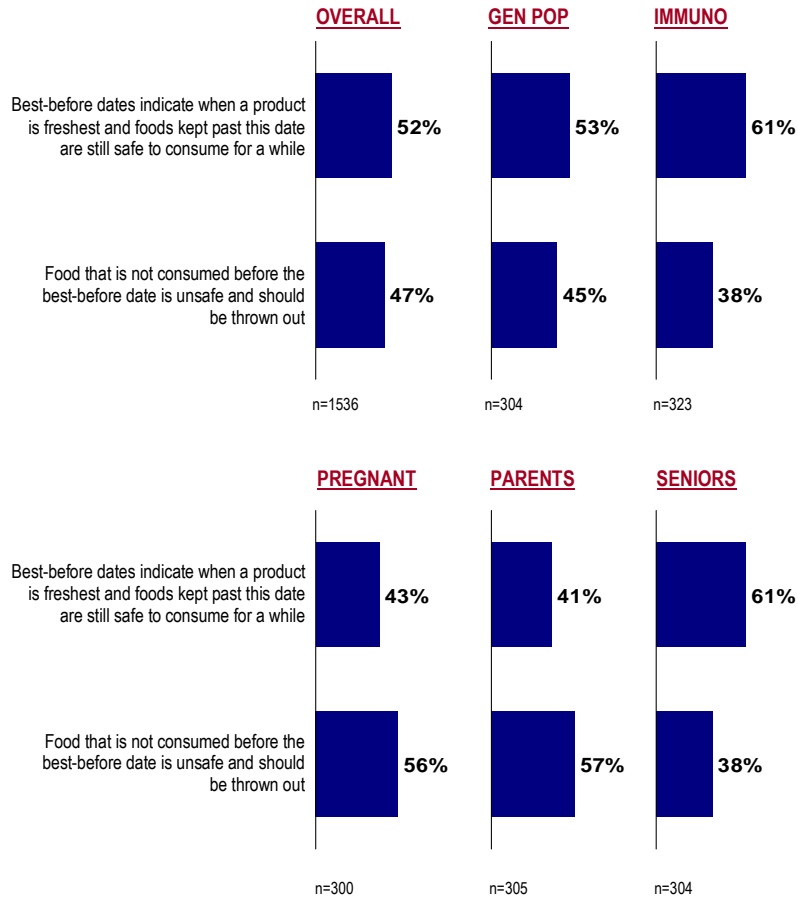
## 3.6 PERCEPTIONS OF “BEST-BEFORE” DATES ON FOOD

The survey also asked Canadians whether they thought that “best before” dates indicate when a product is freshest and food kept past this date is still safe to consume for a while, or whether food that is not consumed before the best before date is unsafe and should be discarded. Overall, Canadians are split on whether or not products are still safe to be consumed after the best before date has passed, although a slight majority believes that products are still safe to be consumed for a while (52 per cent).

These results differ somewhat among the target groups surveyed. Immuno-compromised Canadians and seniors are more likely to believe that the products are safe for consumption after the “best before” date (61 per cent each). The majority of parents and pregnant women, on the other hand, believe that foods kept past the best before date should be thrown away (57 per cent and 56 per cent, respectively).

## Perceptions of “Best-Before” Dates on Food

“Most foods carry a “best-before” date. Which of the following statements comes closest to your understanding of best-before dates?”





## 4. FOOD SAFETY BEHAVIOURS

The survey also explored self-rated food safety behaviour among Canadians. Results suggest that, for the most part, Canadians say they engage in a wide range of safe food practices.

### 4.1 WASHING HANDS

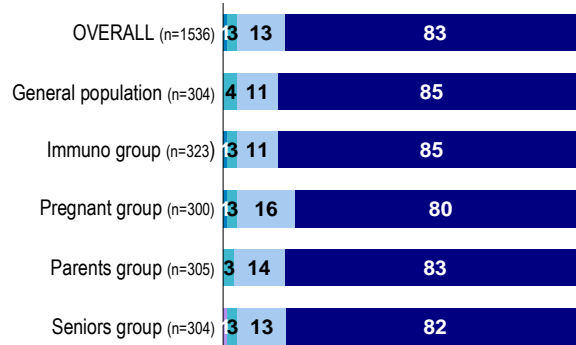
Canadians were asked how frequently they wash their hands with soap and water before and after preparing food. The overwhelming majority of Canadians say they always wash their hands before preparing food (83 per cent), and a clear majority (75 per cent) also report always doing so *after* preparing meals.

The overall results are consistent across the target groups, although seniors are somewhat less likely to report that they always wash their hands after preparing food (67 per cent).

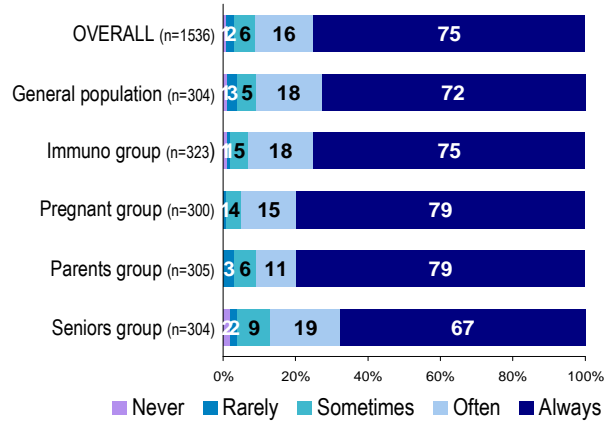
## Washing Hands

“How frequently do you or do you not engage in each of the following activities?”

### Wash hands with soap/water BEFORE preparing food



### Wash hands with soap/water AFTER preparing food





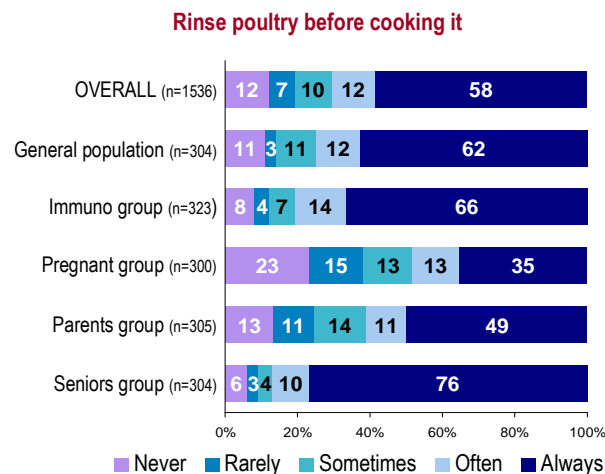
## 4.2 HANDLING MEAT AND POULTRY

In terms of handling meat and poultry, survey results reveal that a majority of Canadians (58 per cent) say they always rinse poultry before cooking it. However, these results vary significantly among the target groups. Over three in four seniors (76 per cent) say they always rinse poultry before cooking it, while only one in three pregnant women (35 per cent) say they always rinse poultry prior to cooking.

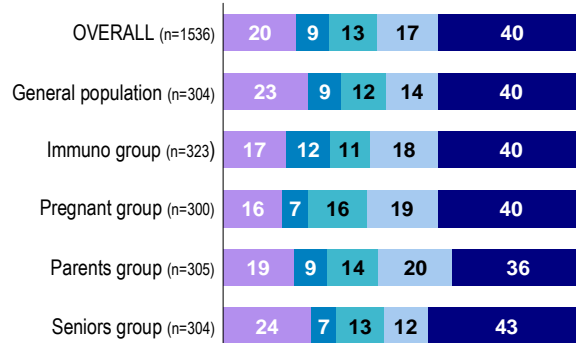
The plurality of Canadians (40 per cent) also say they always store meat, poultry and seafood in a separate compartment in their fridge (and 57 per cent say they do so often or always). In addition, the plurality of Canadians says they 'never' put meat, poultry and fresh produce in the same shopping bag (48 per cent), or defrost frozen meat or poultry on the counter at room temperature (35 per cent). These findings are largely consistent across the various target groups.

### Handling Meat and Poultry

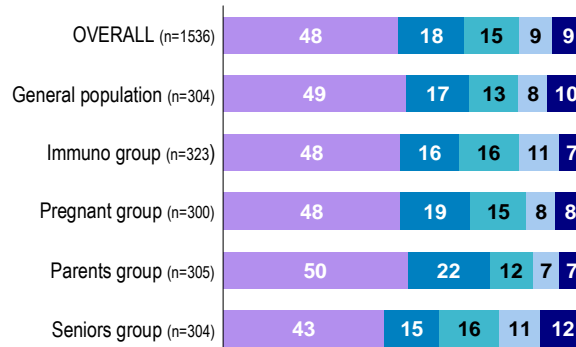
“How frequently do you or do you not engage in each of the following activities?”



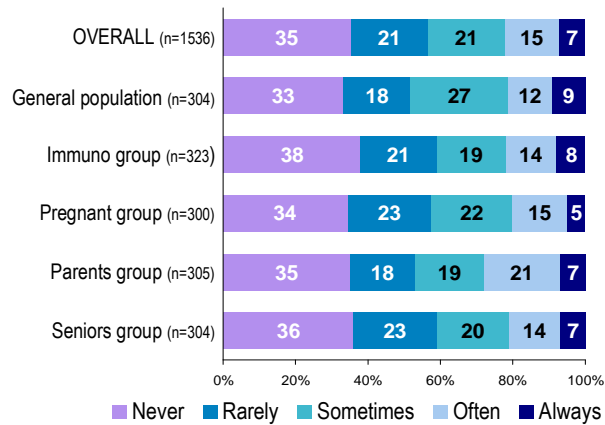
**Put meat, poultry and seafood on the bottom shelf of your fridge, or in a special drawer**



**Put meat or poultry and fresh produce in the same shopping bag**



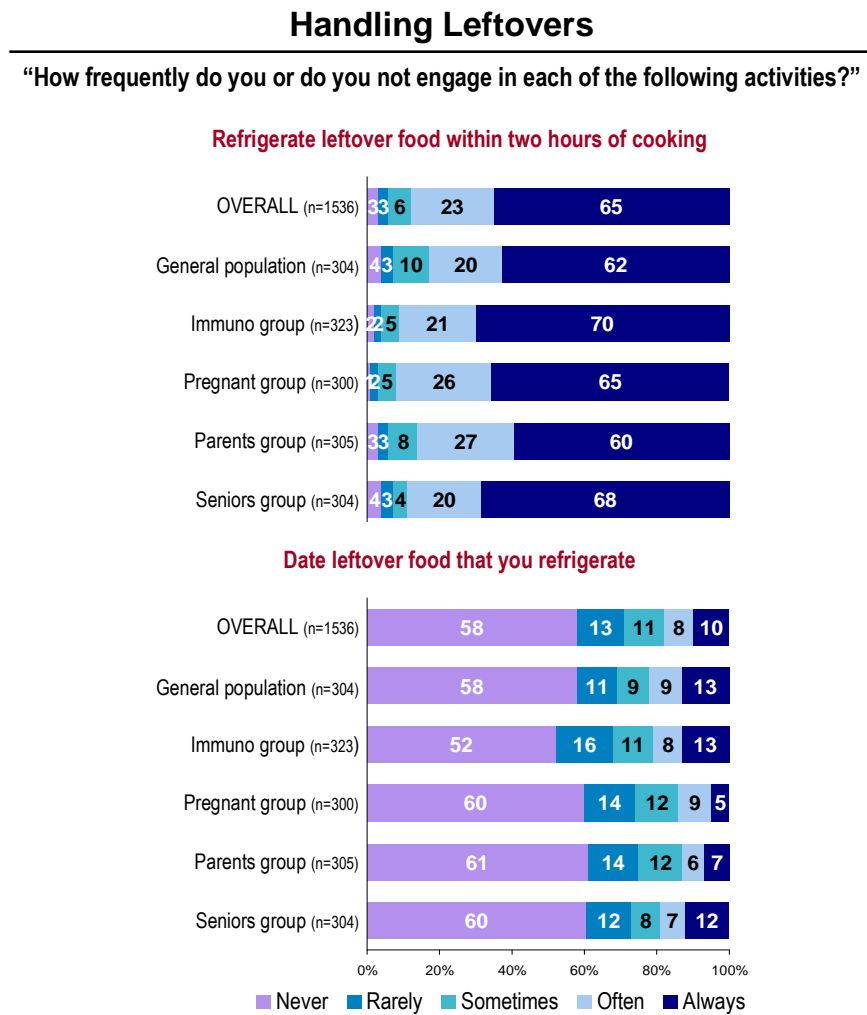
**Defrost frozen meat/poultry on the counter at room temperature**



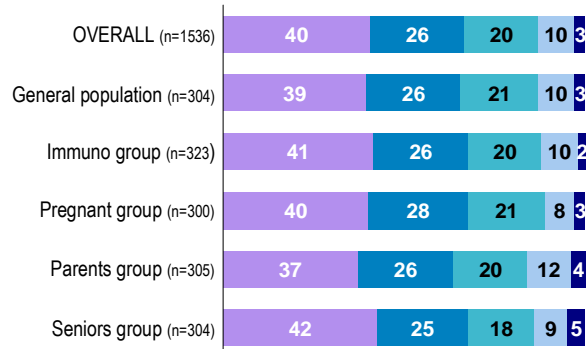
## 4.3 HANDLING LEFTOVERS

Looking at Canadians' self-rated behaviour with respect to handling leftovers, the findings suggest that the majority of Canadians routinely refrigerate leftover food within two hours of cooking (65 per cent indicate they always do this, and 88 per cent say they do so often or always).

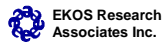
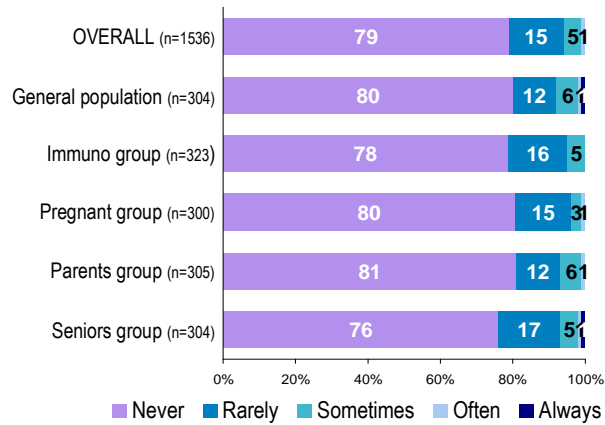
In addition, most Canadians indicate that they do not keep remaining leftover food after it has been reheated once (40 per cent report 'never' doing this), and almost eight in ten (79 per cent) say they never freeze food after it has already been completely defrosted. However, most Canadians say they do not date leftover food intended for refrigeration (58 per cent say they 'never' do this). Again, these findings are largely consistent across the various groups.



**Keep remaining leftover food after reheating it once**



**Refreeze food after being completely defrosted**



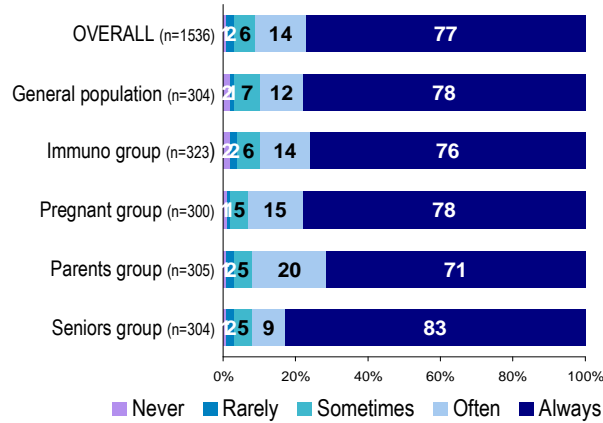
## 4.4 WASHING FRUITS AND VEGETABLES

The majority of Canadians (77 per cent) also say they always wash fresh fruits and vegetables before consumption. Seniors are somewhat more likely than the other target groups to say they always wash produce before consuming it (83 per cent), while parents are somewhat less likely to say they always do this (71 per cent).

### Washing Fruits and Vegetables

“How frequently do you or do you not engage in each of the following activities?”

#### Wash fresh fruits/vegetables before consuming them



## 4.5 CHECKING BEST BEFORE DATE

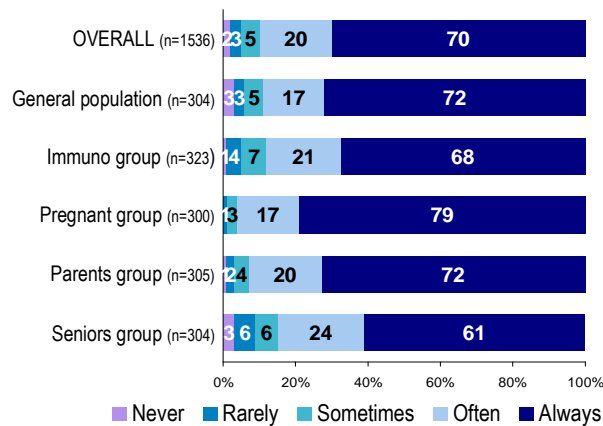
Survey results also suggest that Canadians frequently check the “best before” date before preparing food. Overall, seven in ten report always checking the best before date, and nine in ten say they often or always do this.

However, results vary across target groups. Pregnant women are the most likely to say they always check the best before date before preparing food (79 per cent), while seniors are the least likely to say they always do this (61 per cent).

### Checking Best Before Date

“How frequently do you or do you not engage in each of the following activities?”

#### Check the best before date before preparing food



EKOS Research  
Associates Inc.

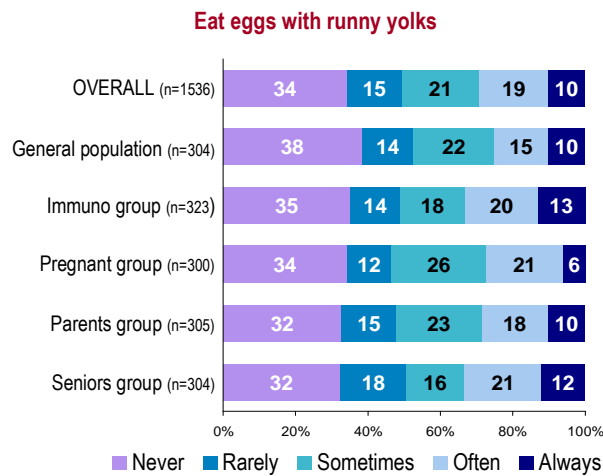
## 4.6 EATING EGGS WITH RUNNY YOLKS

In terms of eating eggs with runny yolks, results are more mixed. Overall, only about one in three Canadians (34 per cent) say they never engage in this behaviour, while half (50 per cent) say they eat eggs with runny yolks at least sometimes.

These results are fairly consistent across the target groups, although the 'at risk' groups are slightly more likely to eat eggs with runny yolks than is the general population.

### Eating Eggs with Runny Yolks

"How frequently do you or do you not engage in each of the following activities?"



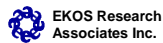
## 4.7 WASHING REUSABLE GROCERY BAGS

Survey results also reveal that most Canadians say they do not wash their reusable grocery bags. Overall, 55 per cent indicate doing so rarely or never; and only about four in ten (41 per cent) report doing this sometimes, often or always.

As with other results, there are some notable distinctions across the target groups. Washing reusable grocery bags is least likely to be reported among the general population, with nearly half (47 per cent) saying they “never” do this, while those in the immuno-compromised group are most likely to say they wash their reusable grocery bags (45 per cent sometimes or more).

### Washing Reusable Grocery Bags

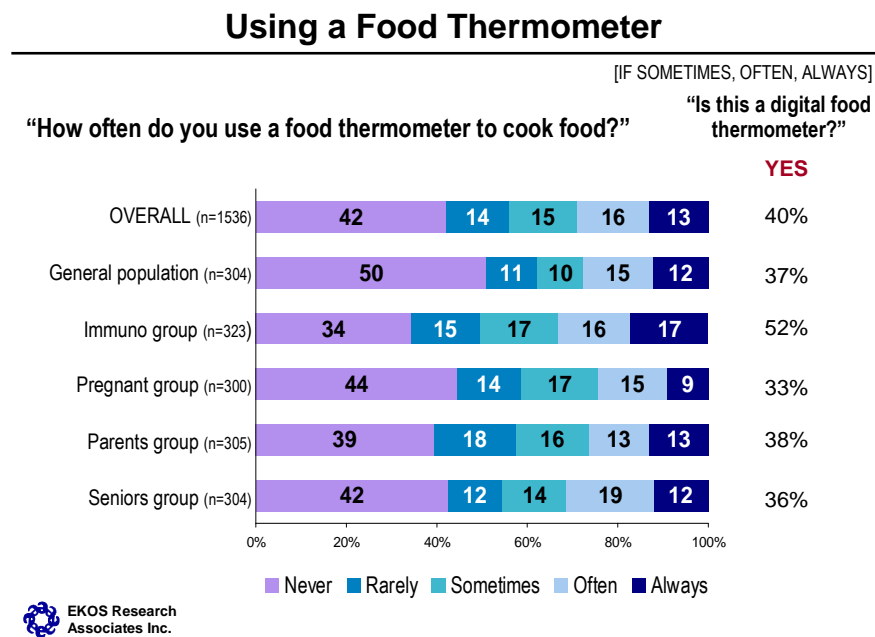
“How frequently do you or do you not engage in each of the following activities?”





## 4.8 USING A FOOD THERMOMETER

Results also suggest that Canadians are not in the habit of routinely using a food thermometer to cook food. Fewer than three in ten Canadians (29 per cent) say they use a food thermometer often or always when cooking food, and 56 per cent say they do so rarely or never. The general population is less likely than those in the at risk groups to say they use a food thermometer (61 per cent never or rarely), while immuno-compromised Canadians are somewhat more likely to say they use these devices (33 per cent often or always). Among those who use a food thermometer at least sometimes, 40 per cent say it is a digital thermometer (rising to 52 per cent among immuno-compromised individuals).

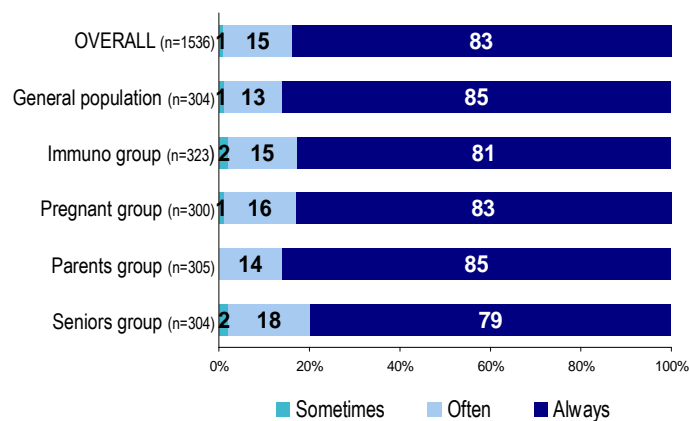


## 4.9 FREQUENCY OF CLEANING SURFACE TO PREPARE FOODS ON

Survey results further reveal that more than eight in 10 Canadians (83 per cent) say they “always” clean the surface they use to prepare foods on. These findings are generally consistent across the various subgroups, with 79 per cent or more from each target group indicating they always clean food surfaces.

### Frequency of Cleaning Surface To Prepare Foods On

“How often do you clean the surface you use to prepare foods on?”

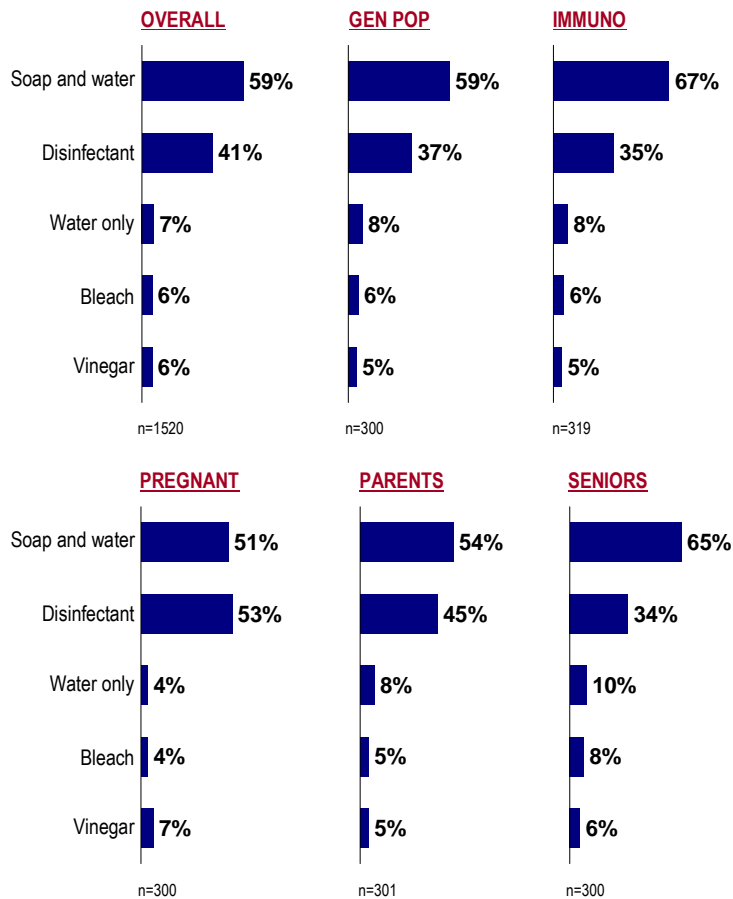


## 4.10 PRODUCTS USED TO CLEAN SURFACES

When asked what they use to clean surfaces where food is prepared, soap and water is most commonly identified (mentioned by 59 per cent of Canadians overall). The next most commonly used product is disinfectant (41 per cent). Soap and water is used particularly often by immuno-compromised individuals (67 per cent) and by seniors (65 per cent).

### Products Used to Clean Surface

[IF SOMETIMES, OFTEN, ALWAYS]  
 “What do you use to clean this surface?”

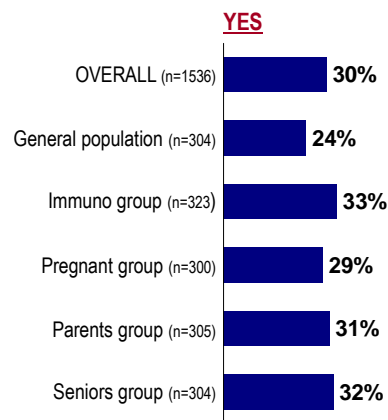


## 4.11 THERMOMETER IN FRIDGE

Results also reveal that only three in ten Canadians say they have a thermometer in their fridge. Interestingly, all of the 'at risk' groups are more likely than the general population to say they have a thermometer in their fridge.

### Thermometer in the Fridge

"Do you have a thermometer in your fridge?"

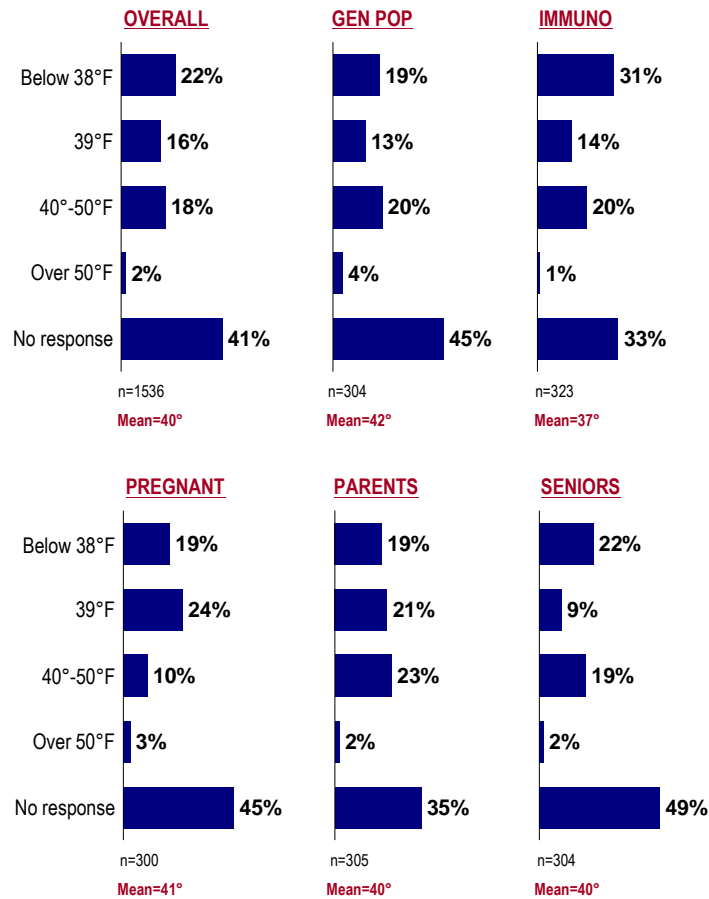


## 4.12 KNOWLEDGE OF MINIMUM INTERNAL TEMPERATURE IN FRIDGE

Given that the minority of Canadians have a thermometer in their fridge, it is not surprising that only 59 per cent were able to provide a response when asked what the minimum internal fridge temperature should be. However, among those who do provide a response, knowledge of the minimum internal fridge temperature is reasonably accurate. The average temperature provided is 40° Fahrenheit (the recommended temperature is 35°-38° Fahrenheit). Immuno-compromised individuals are most likely to provide a response, and are most accurate in their estimates (the average temperature given by these individuals is 37° Fahrenheit).

### Knowledge of Minimum Internal Temperature in Fridge

“To the best of your knowledge, what is the minimum internal temperature your fridge should be kept at...?”





## 5. COMMUNICATIONS

The survey also asked a number of questions about communications with Canadians regarding food and food safety.

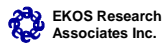
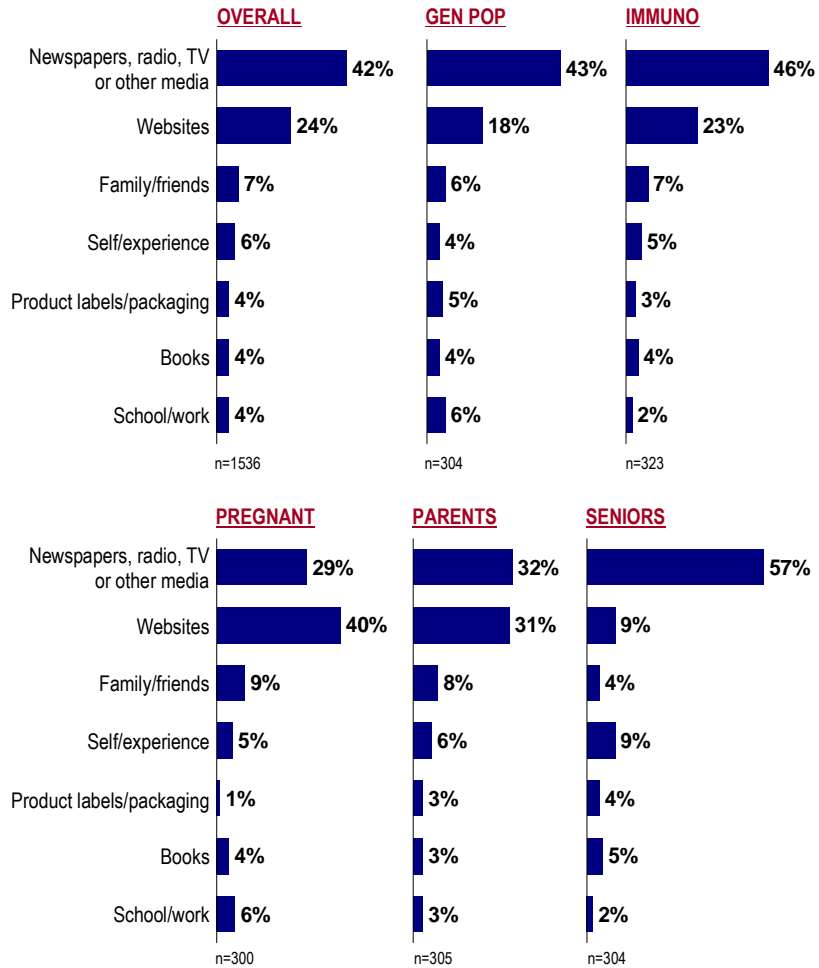
### 5.1 MAIN SOURCE OF INFORMATION ON FOOD ISSUES

Canadians were asked, unprompted, to indicate their main source of information on food issues. Results reveal that traditional media (such as newspapers, radio, TV or other media) is the primary source of information for food issues among Canadians; four in ten (42 per cent) cite these media as their primary source of information. Websites are a distant second, with about one in four Canadians (24 per cent) identifying these as their primary source of food information. All other sources are cited as a primary means of receiving information on food issues by fewer than one in ten respondents.

However, results reveal some significant variation in responses among the target groups. Pregnant women are much more likely than the other groups to mention websites as their primary source of information (40 per cent). Conversely, a clear majority of seniors say they primarily receive their information on food issues through traditional media (57 per cent). Parents are more evenly split in terms of where they receive their information on food issues: one in three cite traditional media (32 per cent), and roughly the same proportion mention websites (31 per cent).

## Main Source of Information on Food Issues

“What is your main source of information on food issues?” [Open]



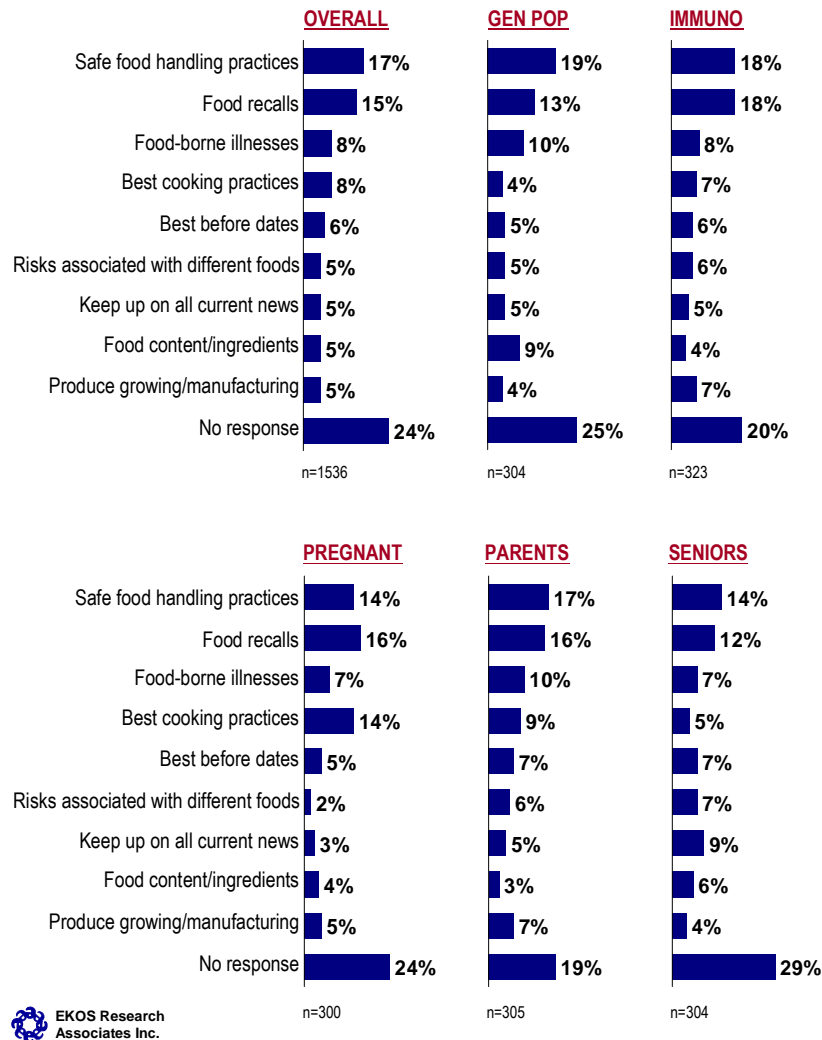


## 5.2 PREFERRED TYPE OF INFORMATION ON FOOD SAFETY

Canadians were also asked, unprompted, what type of information on food safety issues they typically look for. No one type of food safety information dominates, although safe food handling practices (17 per cent) and food recalls (15 per cent) top the list. The results are largely consistent across the target groups with one exception: pregnant women are somewhat more likely than the other groups to look for information on best cooking practices.

### Preferred Type of Information on Food Safety

“And what type of information on food safety issues do you typically look for?”  
[Open]



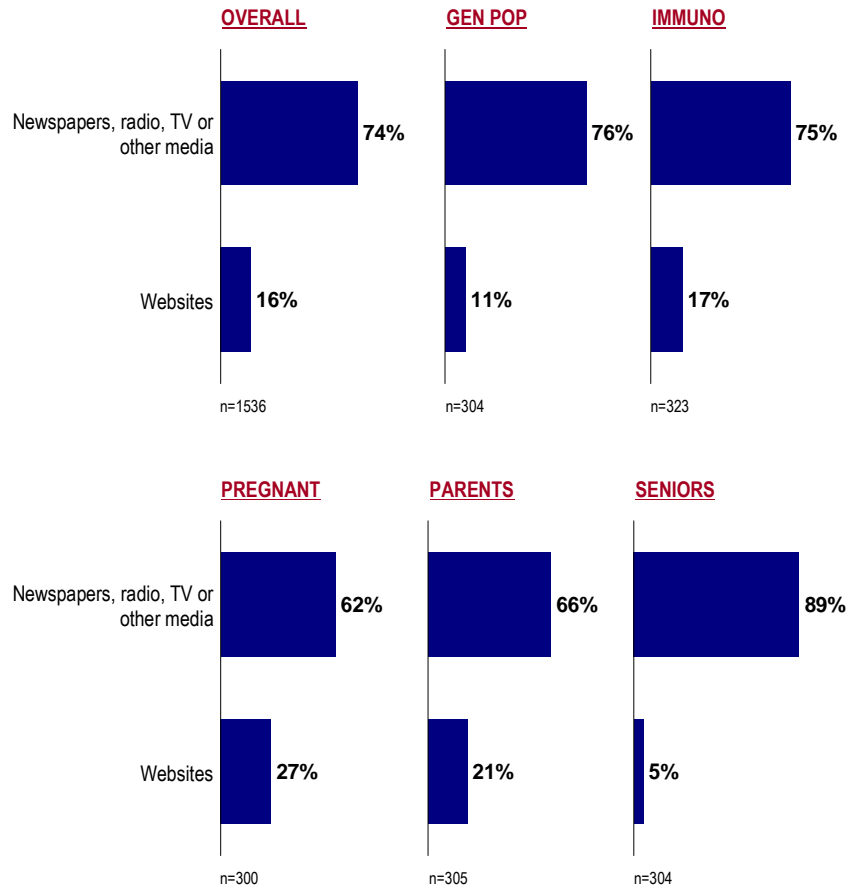
## 5.3 MAIN SOURCE OF INFORMATION DURING OUTBREAK ON FOOD-BORNE ILLNESS

Canadians were also asked to indicate, unprompted, their main source of information during an outbreak of a food-borne illness such as listeria. Traditional media (such as newspapers, radio and television) dominate, with nearly three in four Canadians (74 per cent) mentioning these media as their primary source of information. Far fewer receive this type of information from websites; only about one in six (16 per cent) cite this as their main source of information during an outbreak of a food-borne illness.

Results also reveal some variation in these results among the target groups. Pregnant women and parents are more likely to mention websites (27 and 21 per cent respectively). Seniors, on the other hand, look almost exclusively to traditional media during a outbreak of a food-borne illness (89 per cent).

## Main Source of Information During Outbreak of Food-Borne Illness

“What about when there is an outbreak of a food-borne illness (e.g., during the Listeria outbreak in the summer of 2008)? What is your MAIN source of information under these circumstances?” [Open]



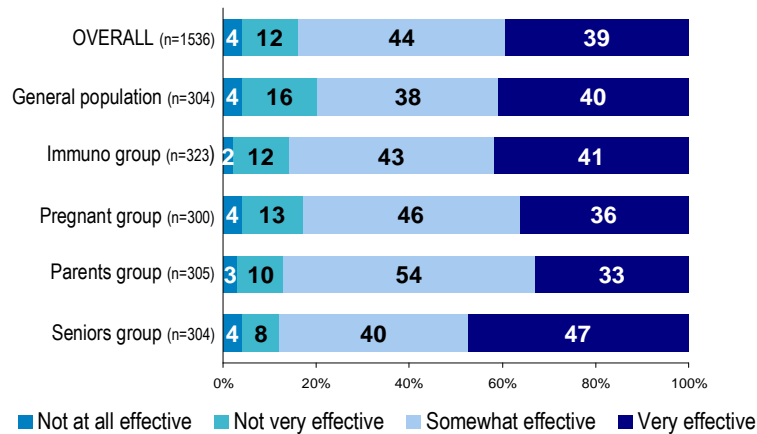
## 5.4 EFFECTIVENESS OF DETAILED ARTICLES IN PROVIDING INFORMATION

Respondents were also asked how effective detailed articles would be at providing them with information on safe food handling. Results reveal that fewer than four in ten Canadians (39 per cent) feel that detailed articles would be very effective in providing this type of information (although a further 44 per cent feel detailed articles would be moderately effective in this regard).

These results vary across the target groups surveyed. Seniors are much more likely than other groups to see detailed articles as very effective (47 per cent). Conversely, parents of children under six years of age are less likely to feel detailed articles are a very effective means of providing information on safe food handling (33 per cent).

### Effectiveness of Detailed Articles in Providing Information

“How effective would detailed articles be at providing you with information on safe food handling?”

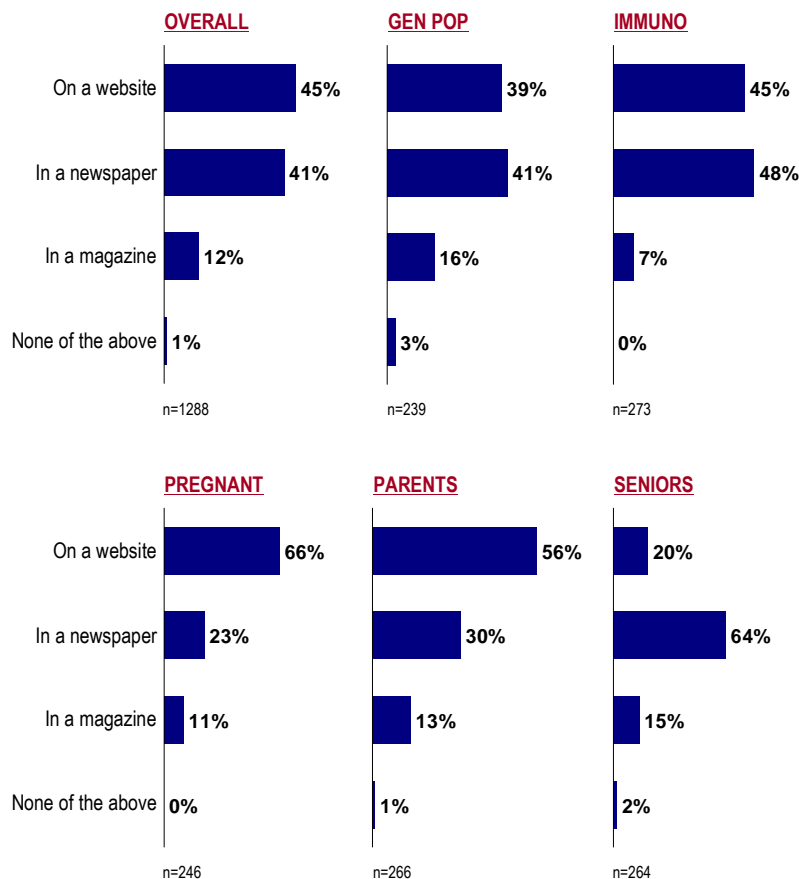


Those respondents who felt detailed articles would be very or somewhat effective at providing information on safe food handling were asked where these detailed articles should be located. Websites (45 per cent) and newspapers (41 per cent) are seen as the preferred places for these detailed articles. Interestingly, only 12 per cent of these respondents mentioned magazines as the best place for these articles.

As with media preferences overall, there is wide variation across the target groups as to the best place for these detailed articles to appear. Pregnant women (66 per cent) and parents (56 per cent) are much more likely than other groups to believe that the best place for these articles is on a website. Seniors, on the other hand, are much more likely to think that newspapers are the best place for these detailed articles (64 per cent).

### Best Place for Detailed Articles About Food Safety

[IF SOMEWHAT, VERY] "Which of the following would be the BEST place for these detailed articles?"

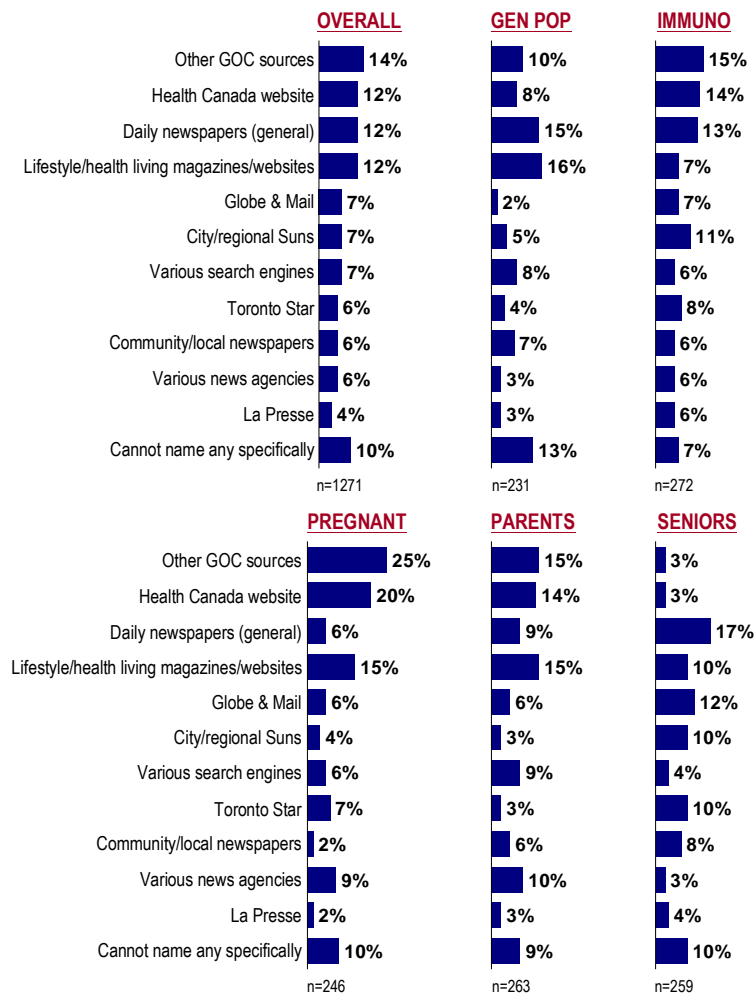


Those who indicated a preference for receiving food safety information in detailed articles in newspapers, magazines or websites were asked to specify which exact sources they were referring to. Government sources of information are identified most often, with nearly equal numbers saying the best place for these articles would be on Health Canada’s website (12 per cent) or other government sources (14 per cent). A variety of newspapers, magazines, and publications were also mentioned, with no one media source dominating the list.

Pregnant women are particularly likely to think that government is the best source for this information, while seniors are much less likely to feel this way.

### Type of Newspaper, Magazine or Website

[IF NEWSPAPER, MAGAZINE, WEBSITE] “Can you please tell me which?” [Open]



EKOS Research Associates Inc.

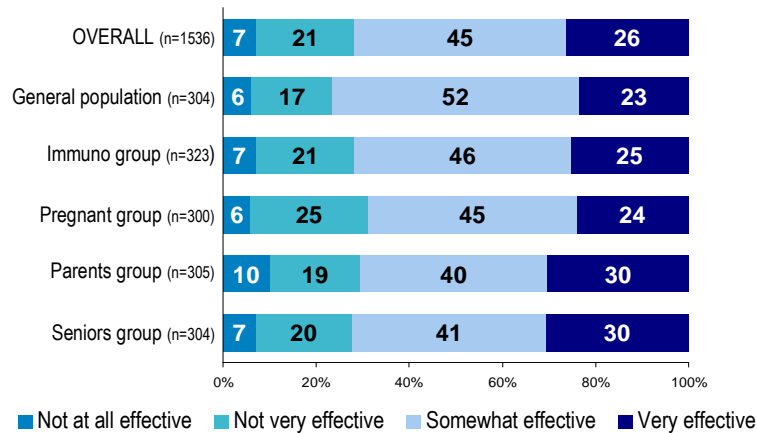
## 5.5 EFFECTIVENESS OF BROCHURES IN PROVIDING INFORMATION

Respondents were also asked how effective brochures would be at providing them with information on safe food handling. Overall, only about one in four Canadians (26 per cent) believe that brochures would be a very effective way to provide information on safe food handling (although a further 45 per cent think they would be somewhat effective in this regard).

This finding is fairly consistent across all target groups, although there is a slightly higher support for brochures among parents and seniors.

### Effectiveness of Brochures in Providing Information

“How effective would BROCHURES be at providing you with information on safe food handling?”



## 5.6 BEST WAY TO RECEIVE OR HAVE ACCESS TO BROCHURES

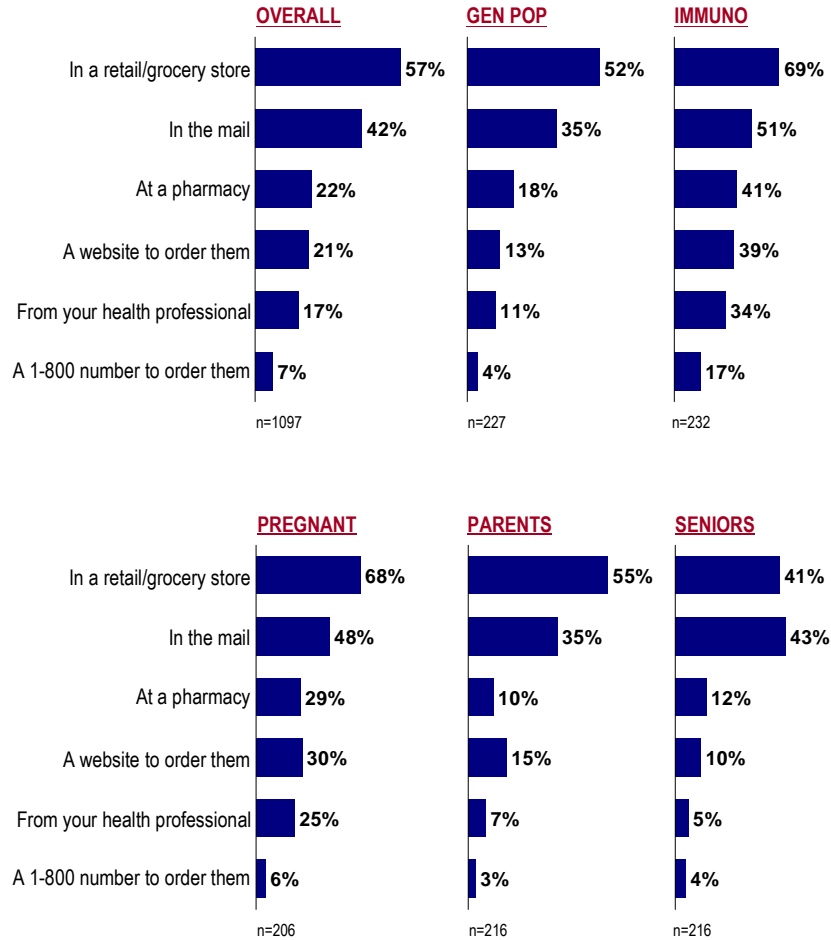
As with detailed articles, those who feel that brochures would be very or somewhat effective in providing information about safe food handling were asked what would be the best way to receive or access these brochures. Over half of these respondents (57 per cent) feel that a retail/grocery store is the best place for these brochures. A further four in ten (42 per cent) feel that mail is the way to receive this information. Other methods of access or delivery do not resonate as strongly. Only about two in ten feel that a pharmacy (22 per cent), a website (21 per cent) or one's health professional (17 per cent) are the best means of receiving the information. The concept of a 1-800 number is not strongly supported by Canadians; just seven per cent identify this as the preferred method of accessing brochures.

Looking at the various target groups, immuno-compromised Canadians appear to be more interested in accessing and receiving this type of information: these individuals are much more likely to say that each of the methods would be a preferred way to access this information. Pregnant women are particularly likely to cite retail/grocery stores as their preferred means of accessing this information (68 per cent). Seniors are split in terms of their preferred method of receiving brochures, with nearly equal numbers indicating a preference for a retail/grocery store (41 per cent), and the mail (43 per cent).



## Best Way to Receive or Have Access to Brochures

[IF SOMEWHAT OR VERY] "Which of the following would be the BEST way for you to receive or have access to these brochures?"



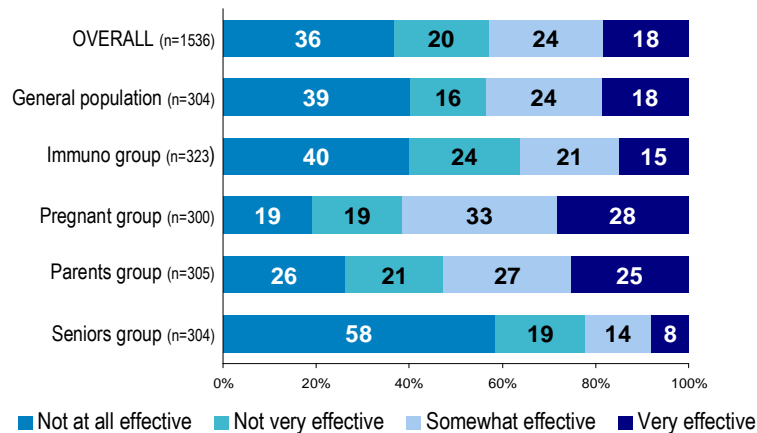
## 5.7 EFFECTIVENESS OF SOCIAL MEDIA TECHNOLOGIES IN PROVIDING INFORMATION

The survey also asked Canadians how effective social media technologies would be at providing them with information on safe food handling. Results reveal that the majority of Canadians (56 per cent) believe that social media technologies would *not* be an effective means of providing information on safe food handling; and over a third (36 per cent) believes these technologies are not at all effective. Fewer than two in ten (18 per cent) think social media technologies would be very effective in providing information on safe food handling.

However, these results vary across the target groups surveyed. These technologies have a great deal more support among pregnant women and parents; majorities in both groups believe these would be at least somewhat effective. Conversely, seniors are far less comfortable with this method of distribution; nearly six in ten (58 per cent) believe they are not at all effective.

### Effectiveness of Social Media Technologies in Providing Information

“How effective would SOCIAL MEDIA TECHNOLOGIES be at providing you with information on safe food handling?”



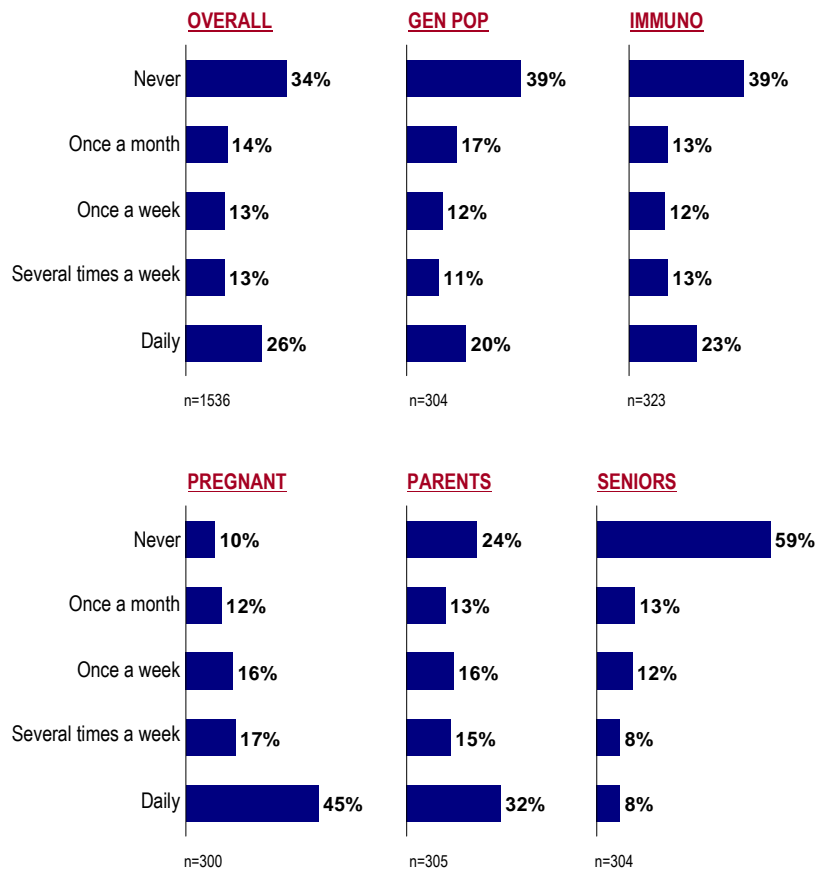
## 5.8 USE OF THESE NEW SOCIAL MEDIA TECHNOLOGIES

Canadians were also asked to indicate the extent to which they use social media technologies. Overall, one in three respondents surveyed say they do not use these technologies at all, while the remaining two-thirds (66 per cent) say they use them at least once a month.

Use of social media technologies largely reflects other findings from the survey. These technologies have much higher rates of use among pregnant women and parents, and are much less likely to be used by seniors.

### Use of These New Social Media Technologies

“To what extent are you personally using these new social media technologies? Would that be...?”



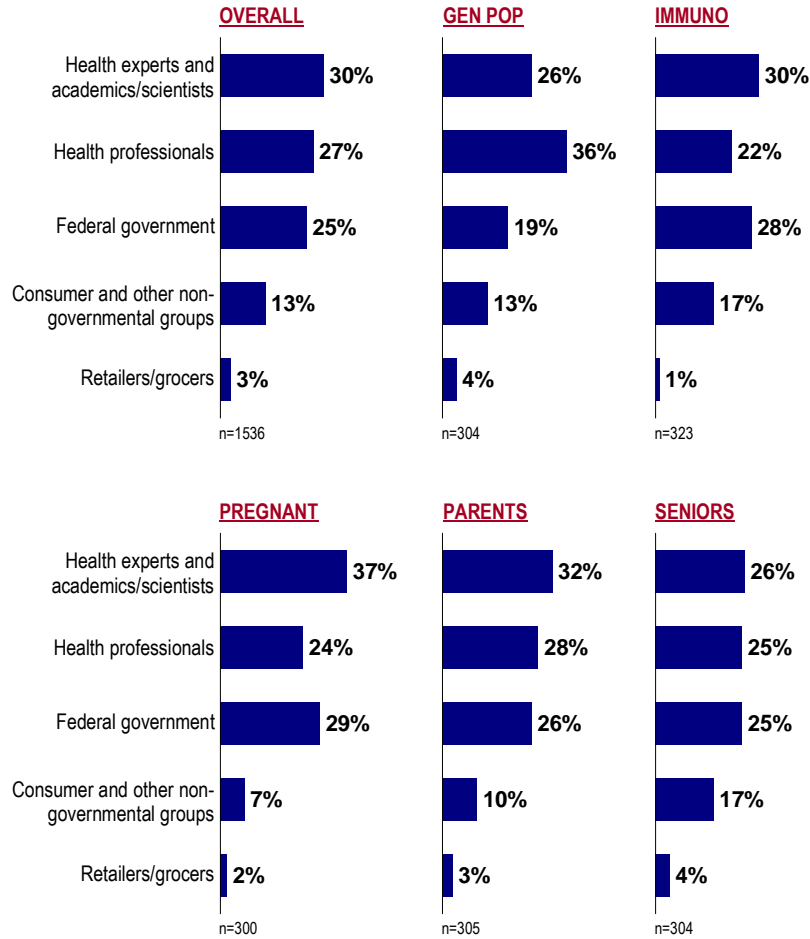
## 5.9 MOST TRUSTED SOURCES OF INFORMATION

Respondents were also asked who they trust most when it comes to providing them with information on food safety. Results reveal that health professionals and health experts are seen as the most trusted sources of information on food safety: three in ten Canadians (30 per cent) select health experts, academics and scientists as their most trusted source, and just over one in four (27 per cent) assign highest trust levels to health professionals. The federal government is seen as the most trustworthy source of food safety information by one in four respondents (25 per cent), and consumer and non-government groups are the most trusted source of food safety information by about one in ten Canadians (13 per cent). Retailers and grocers are not seen as a particularly trusted source of information about food safety (selected by only three per cent of Canadians).

The overall findings are generally consistent across the target groups with some minor variations. The general population is more likely than the “at risk” groups to say that health professionals are their most trusted source for this information, and they are less likely to select the federal government as the most trusted source of information. Pregnant women are slightly more likely than other groups to select health experts and academics as their most trusted source of food safety information.

## Most Trusted Sources of Information

“Who do you trust the MOST when it comes to providing you with information on food safety?”





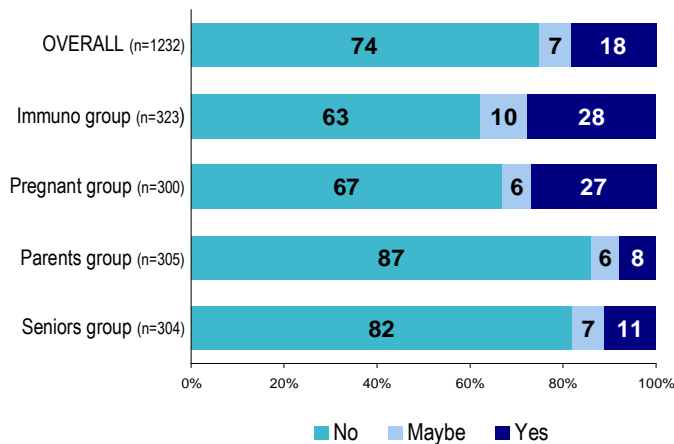
# 6. HIGH RISK GROUPS

## 6.1 SELF-RATED HIGH RISK GROUP

Survey results also reveal that the majority of those identified as a high risk group do not consider themselves to be at greater risk for complications from food-borne illness than the average Canadian. A majority in all four “at risk” groups does not believe they are at greater risk than average for complications from food-borne illness. Immuno-compromised individuals and pregnant women are most likely to feel they are at greater risk (although it is still a minority of these respondents who feel this way).

### Self-Rated High Risk Group

“Would you consider yourself to be at greater risk than average for complications from food-borne illness?”



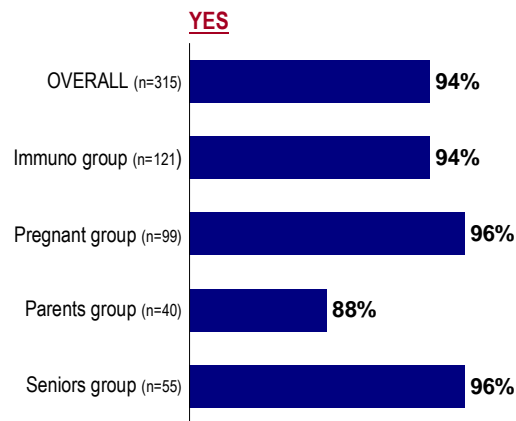
Asked only of those in the target populations

## 6.2 PRECAUTIONS TAKEN TO PREVENT FOOD-BORNE ILLNESS

Among those who do consider themselves as being at greater risk from food-borne illness, virtually all (94 per cent) say they currently take precautions to protect themselves. Parents are somewhat less likely to say they take precautions to protect themselves from food-borne illness, although it is still a clear majority (88 per cent) who say they take precautions.

### Precautions Taken to Prevent Food-Borne Illness

[IF YES OR MAYBE TO BEING HIGH RISK] “Would you say you currently take precautions in order to protect yourself from food-borne illnesses?”

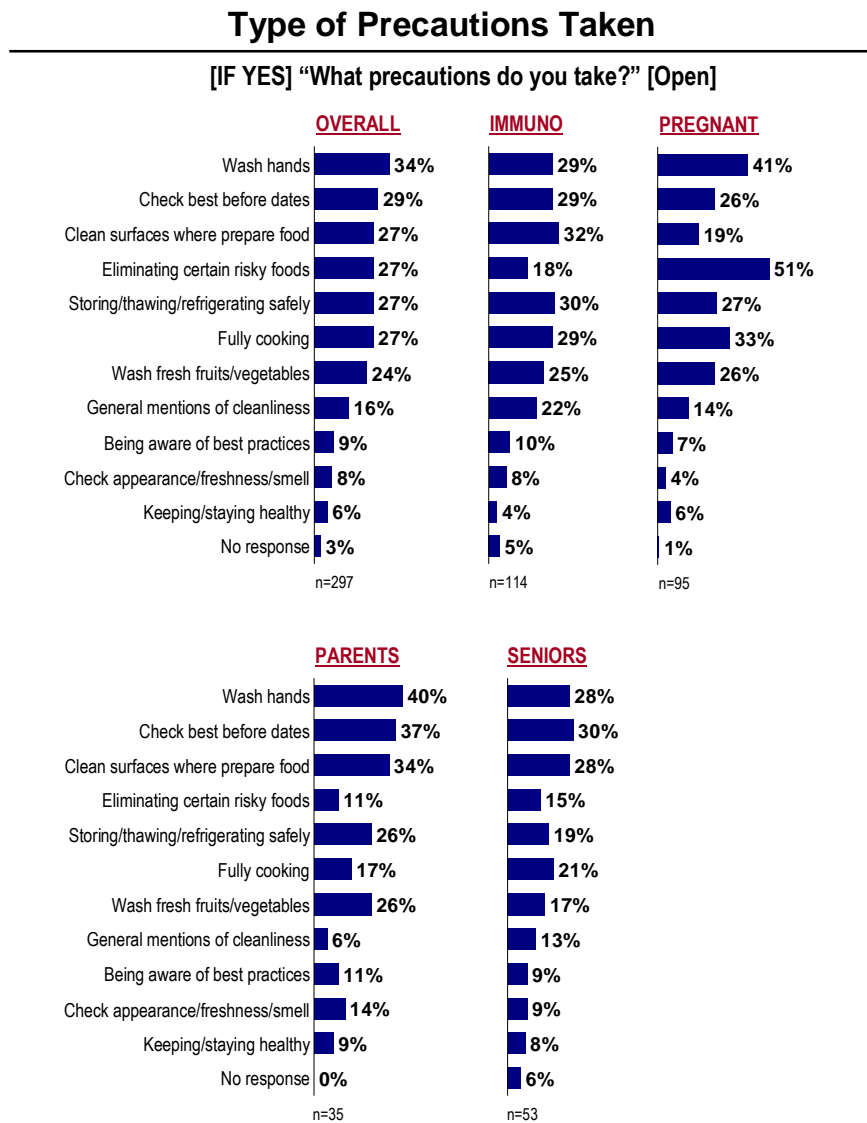




## 6.3 TYPE OF PRECAUTIONS TAKEN

The survey probed further on the types of precautions those who consider themselves to be at risk take in the prevention of food-borne illness. A wide variety of responses were mentioned including washing hands, checking best before dates, cleaning surfaces when preparing foods, safely storing foods, fully cooking foods, and washing produce.

Results are largely consistent across the target groups, although pregnant women are much more likely to say they eliminate certain risky foods from their diet as a precaution (51 per cent).



## 6.4 KNOWLEDGE OF PRECAUTIONS TO PREVENT FOOD-BORNE ILLNESS

Those who do not consider themselves to be at high risk were also asked what types of precautions a person at greater risk for complications from food-borne illness should take to protect themselves. Again, responses were quite varied, with the plurality of these respondents suggesting that at risk individuals should seek information and advice. Fully cooking food, washing hands, and avoiding certain foods were also mentioned by a number of these respondents as ways for “at risk” individuals to protect themselves from food-borne illness. Responses to this question are generally consistent across the target groups.

## Knowledge of Precautions to Prevent Food-Borne Illness

[IF NO TO BEING HIGH RISK] "If a person were at greater risk for complications from food-borne illnesses, what precautions do you think they should take to protect themselves?"

