



Health Canada Santé
Canada Canada



The Strategic Counsel

POR Registration No: POR-035-17
Contract # HT372-173301/001/CY
Contract Award Date: 2017-10-06

Executive Summary
SURVEY OF CANADIAN'S KNOWLEDGE AND BEHAVIOURS
RELATED TO FOOD SAFETY

Prepared for
Health Canada
For more information on this report please email:
por-rop@hc-sc.gc.ca

May 9, 2018

Prepared by
The Strategic Counsel
21 St. Clair Ave E., Ste. 1100
Toronto, Ontario M4T 1L9
Tel: (416) 975-4465 Fax: (416) 975-1883
Email: info@thestrategiccounsel.com
Website: www.thestrategiccounsel.com

Ce sommaire est aussi disponible en français.

Canada



Executive Summary

This report details the findings, key insights and conclusions from a survey of Canadians which was undertaken on behalf of Health Canada during the period from December, 2017 to January, 2018 with the aim of assessing public awareness, attitudes, knowledge and behaviours related to food safety and food-borne illnesses, commonly known as food poisoning. The results from this research are tracked against those from a previous, benchmark survey on this topic which was undertaken in 2010. However, some modifications to the methodology mean that not all data is directly comparable across the two waves of surveys. Readers should take note of these changes, which are detailed in the Methodology section of this report, as they are relevant in some cases to interpreting apparent shifts or trends in public attitudes and opinions between 2010 and 2018. Going forward, the current survey findings represent the 'new' benchmarks with respect to consumer attitudes and behaviours on food safety.

A. Context

According to the Government of Canada's own statistics a total of 4 million (or 1 in 8) Canadians are affected by a domestically acquired food-borne illness every year, resulting in approximately 11,500 hospitalizations and some 240 deaths. Scientists have identified hundreds of different food-borne illnesses, some of which are quite rare while others are much more common. Among the most common pathogens are norovirus, salmonella and listeria which, combined, account for an estimated 1.2 million episodes of domestically acquired food-borne illnesses and just over 2,000 hospitalizations annually.¹

Food-borne illnesses can be serious and even fatal in some cases although most individuals will experience only short-lived symptoms and recover fully. Nevertheless, some people are more vulnerable both in terms of their likelihood of contracting food poisoning and of becoming seriously ill, including infants and young children, pregnant women, senior citizens and people with weakened or compromised immune systems such as those with chronic diseases or conditions (i.e., cancer, liver disease and AIDs) and those undergoing certain medical treatments such as chemotherapy. In some instances, food-borne illness can result in long-term health issues including kidney damage, arthritis or heart problems. But, the good news is that it can often be prevented by taking a number of simple steps when preparing and handling food, by washing hands and cleaning kitchen surfaces, separating raw foods from cooked foods to avoid cross-contamination, cooking foods according to instructions and proper internal cooking temperatures, and chilling foods or leftovers within two hours.

Educating the public about food safety is essential to reducing cases and outbreaks of food-borne illnesses that continue to occur throughout the population, and is of particular importance for those at greater risk of contracting food poisoning. Indeed, the majority of food poisoning cases are preventable with proper and consistent safe food handling practices and avoidance of certain high risk foods. Raising public awareness about the extent to which one's own behaviours are a contributing factor to food-borne illness can go a long way towards reducing outbreaks, specifically education around both the risks and some very basic prevention strategies.

In 2009, Health Canada launched a multi-year social marketing strategy (The Safe Food Handling Marketing Campaign) to increase awareness and knowledge of the health risks associated with unsafe food handling practices and food poisoning for the above-noted vulnerable populations, emphasising their at-risk status (i.e. why they are at higher risk and what this means for them). Over the intervening years, Health Canada's Marketing Division has undertaken additional outreach activities, including:

¹ Government of Canada, [Yearly food-borne illness estimates for Canada](#)



- Print and web-based content for various audiences;
- Targeted outreach activities to health professionals and other intermediaries;
- National multi-media advertising campaigns;
- Promotion of food safety messages through partners;
- Public relations activities; and
- Baseline public opinion research (2010).

The Survey of Canadians' Knowledge and Behaviour Related to Food Safety (2010) referred to above was originally undertaken to identify the extent to which 'at-risk' Canadians are aware of food safety practices. That survey aimed to address issues regarding the lack of clarity surrounding individuals' abilities to self-identify as being at greater risk due to age, medical conditions, or other factors. It also focused on pinpointing knowledge gaps related to proper food handling and storage practices among 'at-risk' populations and determine how these groups wanted to receive information on proper food handling and storage practices.

Health Canada recognizes that being effective in changing food safety behaviours requires continuous interventions which must be reinforced on a regular basis. As such, the 2017-18 public opinion research was designed to inform the existing campaign, helping to ensure approaches, messages and tactics reflect the current knowledge, behaviour and opinion landscape of targeted populations. The 2018 survey builds off the previous research with the key objectives being to:

- Assess public awareness and knowledge on food safety;
- Measure individuals' ability to self-identify their risk status for food-borne illness;
- Evaluate consumers' knowledge of food safety practices and understand where there are gaps;
- Examine food safety behaviours of the general public and "at-risk" individuals;
- Identify how and where the general public and "at-risk" individuals would like to receive information on the topic, including which sources they trust the most; and
- Assess the awareness of specific food-borne illnesses and specific foods to avoid.

B. Key Findings

As a backdrop to the key results found in the 2018 survey, it is important to underscore that Canadians continue to express reasonably high levels of confidence in Canada's food safety system. Overall, most feel that they have sufficient information to be able to protect themselves from food-borne illnesses and food poisoning, although those with compromised immune systems and pregnant women are somewhat less likely to hold this view.

1. Awareness and Knowledge of Food Safety and Food-borne Illness

Awareness of food safety-related issues is fairly high across the board. In particular, campaigns stressing the importance of handwashing have clearly broken through with over nine-in-ten Canadians saying they have heard something about this issue or practice. At the same time, awareness of safe food handling appears to have fallen off in the 8-year period between the benchmark and this current survey. Although a majority say they have heard at least something about this issue (almost two-thirds), this represents a drop from almost three-quarters who said the same in 2010.



Awareness of listeria has also plummeted, from over half when the survey was undertaken in 2010, just two years following a very serious outbreak, to just over one-third currently. This result is not surprising as we would expect awareness of specific food-borne pathogens to fluctuate year-over-year depending on the severity of outbreaks and extent of national or regional media attention on this issue. Further to this point, the 2008 listeriosis outbreak was widespread with 57 confirmed cases, resulting in 22 deaths. Subsequent outbreaks have occurred, but they have been more limited. For example, in early 2016, the Public Health Agency of Canada reported 14 cases of listeria, in 5 provinces, resulting in all cases being hospitalized. While 3 people died, it was not determined if listeria contributed to the cause of these deaths.²

While the vast majority of Canadians understand that cases of food poisoning can range from mild to severe and, in some instances, can result in hospitalization, there is a small contingent (about one-in-ten) within three of the four 'at risk' groups (excluding seniors) who tend to downplay the potential issues and complications that can arise. This suggests a continued need for communications on the true impacts of food poisoning to pregnant women, parents of young children and immunocompromised individuals.

Knowledge of the sources and causes of food poisoning is also reasonably good as the majority of respondents recognize that most cases of food poisoning occur as a result of unsafe food handling or cooking practices in the kitchen. At the same time, results suggest that Canadians could benefit from messaging that reinforces vigilance about food safety practices in the home, as Canadians are much more inclined to think that the vast majority of food poisoning cases are contracted in restaurants or from take-out foods rather than from unsafe practices in their own home (by a ratio of about 3:1).

Although Canadians' are generally knowledgeable of the issues related to food-borne illnesses, there continue to be some significant gaps. In particular, Canadians continue to be uncertain about whether the look, taste or smell of a food is any indication that it could cause a food-borne illness – about half say this is true, a marker which has not moved significantly since 2010, however this belief has decreased among seniors. In addition, interpretation of best before dates which appear on food packages is a cause for confusion with Canadians expressing mixed views on whether the data suggests when a food becomes unsafe or when it simply loses its freshness. In particular, seniors are more likely (88%) to view foods as safe to consume past the best before date. A modest level of confusion is also apparent when it comes to Canadians' understanding of the appropriate temperature at which refrigerators should be set. While two-in-five accurately suggest a temperature setting between 2 and 4 degrees Celsius, a significant proportion (about one-quarter) simply don't know. Seniors in particular, have a gap in knowledge regarding safe temperatures.

2. Food Safety Behaviours

As in 2010, most Canadians conduct themselves in a safe manner when it comes to food handling and food preparation. However, there are some exceptions.

On the positive side, handwashing before preparing food or after handling raw meat, fish or frozen breaded chicken products is fairly routine. Most also wash fresh fruits and vegetables, closely follow cooking instructions, clean the surfaces on which they prepare foods, and refrigerate leftover food within two hours of cooking.

Findings are more mixed in other areas however. For example, many people do not make a regular practice of washing reusable grocery bags, using a food thermometer to determine if the recommended temperature has been reached. And small, but still concerning, numbers of Canadians continue to defrost meat or poultry at room temperature rather than in the fridge. In fact, this practice has increased among pregnant women (21% to 39%) and

² <https://www.canada.ca/en/public-health/services/public-health-notices/2016/public-health-notice-update-outbreak-listeria-infections-linked-packaged-salad-products-produced-dole-processing-facility-springfield-ohio.html>.



parents of young children (27% to 39%) over the past 8 years, and is thus now particularly high among these high risk groups.

Other practices such as putting meat, poultry and fresh produce in the same shopping bag, keeping leftovers after they've been reheated, and eating eggs with runny yolks are also common among a minority of Canadians. And, as with defrosting meat at room temperature instead of the fridge, some of these practices are in fact more common among the 'at risk' groups – just under half of pregnant women admitted to eating eggs with runny yolks and one-third in this group also keep remaining leftover food after it has been reheated once. While most Canadians do put meat, poultry and seafood on the bottom shelf of their fridge or in a special drawer, for a large number of people (40%), this is not a regular practice.

There are also misperceptions relating to frozen, breaded chicken products among slightly more than one-third of Canadians, who are of the view that these are pre-cooked products that require re-heating only. The perceptions among the target groups are particularly concerning on this subject, especially for seniors where just under half (46%) consider that these products are pre-cooked. Significant proportions of parents with young children (41%) and those with compromised immune systems (40%) also hold this view.

In line with the 2010 results, many in the higher risk groups do not view themselves as being at greater risk for complications from food poisoning. Although the plurality (just under half) of parents with children 5 years of age or younger consider their young child to be at greater risk, a majority say they are unsure (20%) or believe they are not (32%). Relatively few (fewer than one-in-five and in some cases one-in-ten) of those with compromised immune systems, pregnant women and seniors definitively feel they are at greater risk. The majority are uncertain or say they are at not greater risk.

3. Communications

There is a clear demand for more, and more detailed, information on safe food handling and particularly among at-risk groups (31-33%) as compared to the general public (18%). Many Canadians support developing and distributing detailed articles and brochures, although perceptions of the effectiveness of the latter as a vehicle for providing information on safe food handling has declined since 2010.

As expected, the media landscape has dramatically shifted since 2010 with a significant increase in the numbers of Canadians who now access information pertaining to food safety on the Internet. A significant proportion of seniors (42%) still cite newspapers as a preferred medium, although this has decreased from 2010 (64%). While reliance on traditional media has declined it remains a highly relevant vehicle for getting information out to the public during an outbreak of a food-borne illness.

The power and reach of social media has also grown significantly between 2010 and 2018, although as with other media, usage varies markedly across various sub-groups. At the same time, it is notable that almost two-thirds of seniors (62%) who were surveyed online as one of the 'at risk' groups indicated they have a Facebook account, while almost one-quarter (23%) were also on YouTube. This may be an instance where the use of an online panel to reach this particular segment of the population skews the results on questions related to social media usage in an upward direction. One might expect that all panellists, regardless of age, would exhibit a greater propensity for a range of online activities.



4. High Risk Groups

As was the case in 2010, significant percentages of those who self-identified as being in one of the defined high risk groups (i.e., people with compromised immune systems, pregnant women, and seniors) did not necessarily consider themselves to be at substantially greater risk of food poisoning relative to the average person. At the same time, in contrast to the other 'at risk' target groups, the majority of parents (68%) felt their child (5 years of age or younger) was at greater risk for complications from food poisoning.

Among those who do consider themselves, or their young child, to be at greater risk from food poisoning, a majority in each of the target groups say they are taking precautions to protect themselves (or their child). When probed on the types of precautions they take to protect themselves from food poisoning, results illustrate that there are a wide variety of actions taken, including cleaning food preparation surfaces, washing fruits and vegetables, using different cutting boards to avoid cross-contamination, defrosting meat and poultry in the refrigerator and avoiding certain higher risk food. These results were largely consistent across the 'at risk' groups.

C. Conclusions and Recommendations

There is a clear demand for more, and more detailed, information on safe food handling, particularly among the at-risk groups (34-37%) as compared to the general public (28%), based on the proportion of respondents who are less inclined to agree with the statement *I feel I have enough information about food safety and how to protect myself and my family from food-borne illness and/or food poisoning*. Beyond consumers' own self-evaluation, it is apparent from their responses to questions probing the frequency of safe food handling, preparation and storage practices that there is also a need to reinforce or remind the public of some of the less well-known or understood ways to minimize exposure to food-borne illnesses.

The results of this survey also suggest an '*out of sight ... out-of-mind*' tendency among the public with regards to safe food handling in general, food-borne illness and listeria in particular. In the absence of sustained messaging related to food safety, it is likely that consumer vigilance may lapse, especially with respect to specific food safety practices that have not yet become normalized or habitualized. Given that messaging around handwashing appears to have been broadly internalized, upcoming educational campaigns could focus more directly on four specific areas:

- Broadening consumers' understanding and awareness of the types of foods that tend to be more commonly associated with food-borne illnesses such as listeria or salmonella, including canned and raw seafood, deli meats, raw eggs, unpasteurized cheeses, sprouts, unpasteurized juices, some root vegetables and fruits such as melons, and uncooked flour. Without undermining the public's confidence in agriculture or the agri-food industry or in Canada's food safety system, which is reasonably good, the focus of educational and awareness-raising activities should underscore the significant role that consumers have to engage in more self-protective behaviours;
- Related to the above point, it is important to remind Canadians of continued vigilance in terms of consumer hygiene in the home, with respect to food handling, preparation and storage. In particular, a heavier emphasis needs to be placed on driving wider behaviour change in the following areas:
 - Washing reusable bags;
 - Using food thermometers to check that foods have reached the recommended temperature;
 - Rinsing poultry before cooking;
 - Proper storage, defrosting and reheating of foods, including meat, poultry and seafood/leftovers; and



- Risks associated with eating eggs with runny yolks;
- Developing highly targeted communications to the 'at risk' groups to further sensitize them to food safety issues. Seniors and women who are pregnant or likely to be so within the next year should be prioritized given that a majority in each case do not consider themselves to be at any greater risk from food poisoning. At the same time, continued outreach should target parents of young children and those with compromised immune systems to ensure ongoing safe food handling practices. Notably, for those with compromised immune systems, the issue is not so much one of awareness of their 'at risk' status (although there are additional opportunities to increase basic awareness and understanding), but more the fact that just over one-third (35%) are not taking precautions beyond what anyone else might do to protect themselves from food poisoning; and
- Raising awareness of appropriate cooking techniques specifically related to frozen breaded chicken products, across the board – among the general public and 'at risk' groups. While most consumers recognize that these products need to be fully cooked there is a sizeable proportion of the population, ranging from one-third (the general public) to close to one-half (seniors) who consider these products to be pre-cooked and only requiring reheating. Messaging to reinforce that these products should be treated in the same way as raw poultry should be reinforced, including emphasis on following the directions on the package.

As expected, the media landscape has dramatically shifted since 2010 with a significant increase in the numbers of Canadians who now access information pertaining to food safety on the Internet. A significant proportion of seniors (42%) still cite newspapers as a preferred medium, although this has decreased from 2010 (64%). While reliance on traditional media has declined it remains a highly relevant vehicle for getting information out to the public during an outbreak of a food-borne illness. Notably, few among the general public cite product labels or packaging among their main sources of information on food safety, although reliance is significantly higher among each of the four 'at risk' groups. This suggests there may be opportunities to work with industry partners to develop key food safety-related messages that could appear on the label or packaging, resulting in higher visibility and impact as they reach consumers at the time of purchase and/or use of the product.

Many Canadians support developing and distributing detailed articles and brochures, although perceptions of the effectiveness of the latter as a vehicle for providing information on safe food handling has declined since 2010.

The power and reach of social media has also grown significantly between 2010 and 2018, although as with other media, usage varies markedly across various sub-groups. At the same time, it is notable that almost two-thirds of seniors (62%) who were surveyed online as one of the 'at risk' groups indicated they have a Facebook account, while almost one-quarter (23%) are also on YouTube. This may be an instance where the use of an online panel to reach this particular segment of the population skews the results on a question related to social media usage in an upward direction. One might expect that all panellists, regardless of age, would exhibit a greater propensity for a range of online activities.



MORE INFORMATION

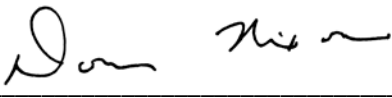
Supplier Name: The Strategic Counsel
PWGSC Contact Number: HT372-173301/001/CY
Contract Award Date: 2017-10-06
Contract Budget: \$126,449.26

To obtain more information on this study, please e-mail por-rop@hc-sc.gc.ca

Statement of Political Neutrality

I hereby certify as 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:



Donna Nixon, Partner