

A review of Ontario public health unit websites for food safety information tailored to the immune-compromised

INTRODUCTION

- Immune-compromised individuals are highly susceptible to foodborne illnesses and infection due to their weakened immune status when compared to the general public
- As studies show that immune-compromised individuals are 10-15% more likely to develop foodborne illness, it is critical that food safety information is provided to the population (Lund & O'Brien, 2011)
- Therefore, specifically tailored information is required to educate the immune-compromised population on safe food handling to prevent food-related illness
- Immune-compromised people are defined by health Canada as individuals who live with:

- Alcoholism
- HIV/AIDS positive status
- Cancer
- Organ transplantation
- Diabetes

- With recent changes to Ontario's Food Safety Protocol, as of January 2018 the Ministry of Health and Long-Term Care now make it a requirement for Ontario's 36 health units to provide specifically tailored food safety information to the priority populations, such as the immune-compromised
- There is a need to evaluate the availability of food safety information designed to educate the immune-compromised population in Ontario

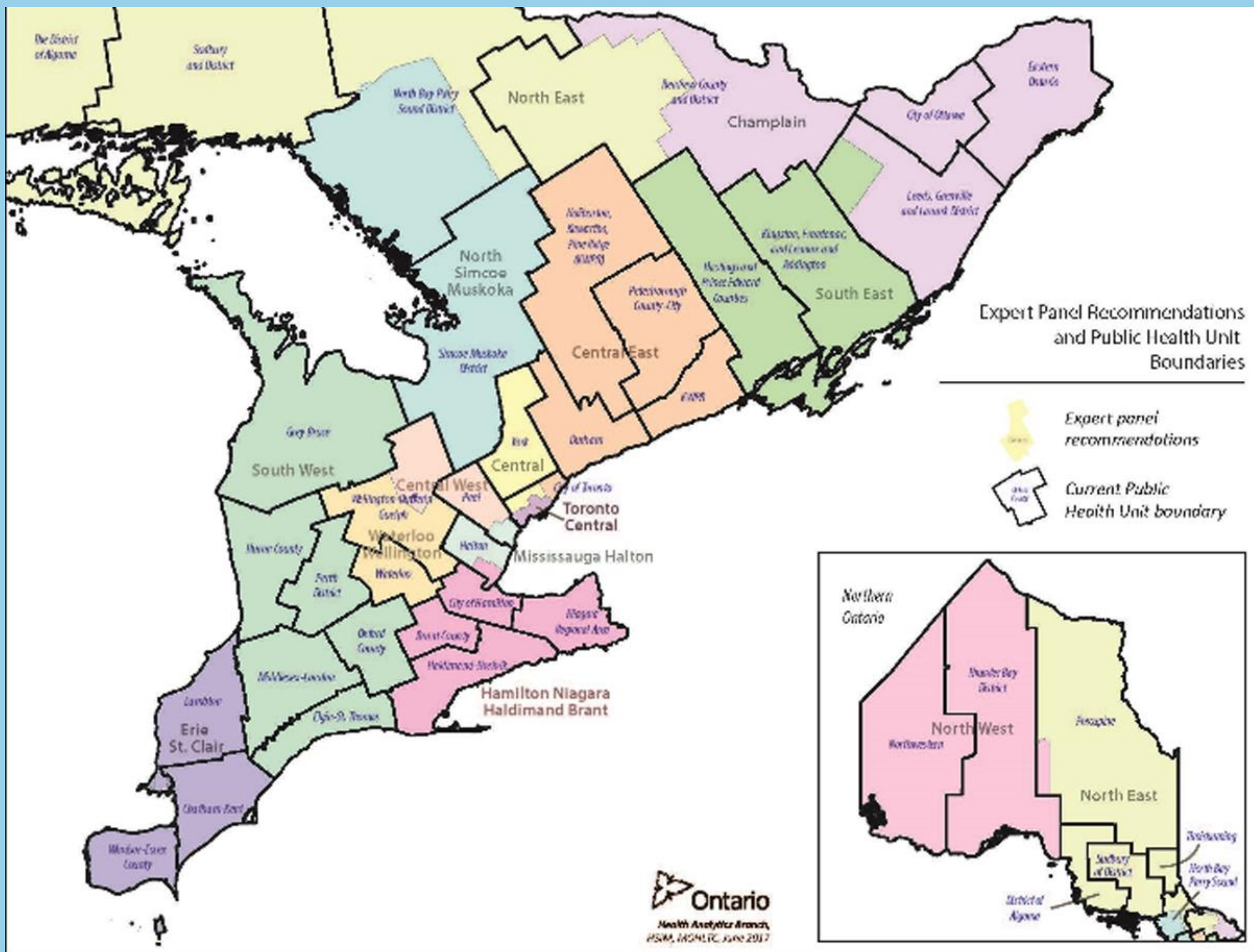


Figure 1. Shows the Distribution of Health Units in Ontario

METHODS

- An online search was conducted of all of Ontario's 36 public health units' websites, as well as the Ministry of Health and Long-Term Care, to identify food safety information directly tailored to immune-compromised individuals
- Educational information identified was compared to Health Canada's guidelines for safe food handling for this population group
- Food safety information tailored specifically for immune-compromised individuals was identified on each public health unit website through iterative keyword searching
- Results were tabulated and summarized in an Excel spreadsheet

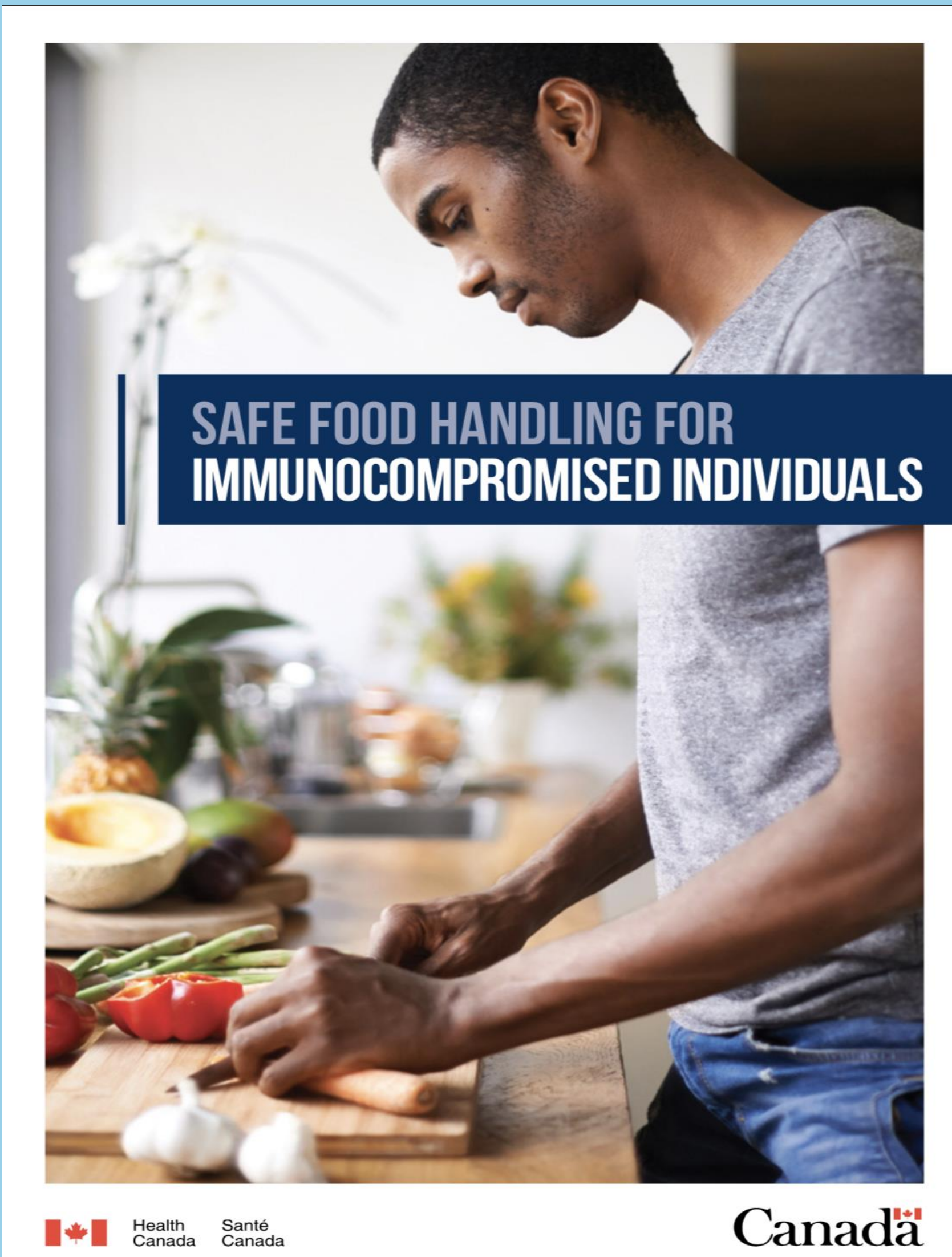


Figure 2. Shows the Health Canada Guideline for Immunocompromised Individuals

Health Canada Food Safety recommendations for Immune-compromised Individuals						
Explicit definition of the immune-compromised individuals	Safer-food Alternatives	Safer shopping choices	Safe food storing protocol	Defrosting food protocol	Food and Cleanliness	Food cooking process
Includes people who live with: - Alcoholism - HIV/AIDS positive status - Cancer - Organ transplantation - Diabetes Also includes individuals taking steroids or immunosuppressant drugs that affect the immune system making the individual more susceptible to illness	- Thoroughly cooked sprouts - Pasteurized dairy products and cheeses - Oysters and Crustaceans cooked until shell has opened - Eggs cooked to a safe internal temperature of 74 °C (165 °F) - Meat cooked at least at 63 °C (145 °F) Foods to avoid like: - Raw or slightly cooked eggs - Raw or undercooked meat - Raw oysters and crustaceans - ready to eat hot dogs - unpasteurized fruit juices	- Buy cold or frozen food at the end of the shopping trip - Check the "best before" date on food - Check fruits and vegetables to avoid buying items that are bruised or damaged	- For freezer and fridge storage for different foods	- Defrost raw meat, poultry, fish and seafood in: the fridge the microwave a sealed bag or container submerged in cold water - If you use the microwave, cook it immediately after thawing it	- Handwashing protocol - When to wash hands and at what stage of the food handling process to repeat the procedure - Procedures for kitchen utensils	- Safe internal temperatures chart for foods like meat, poultry, seafood, eggs and other foods - The re-heating process for leftovers

Table 1. Shows a summary table of the Health Canada's key food handling recommendations for immune-compromised individuals



RESULTS

- Seven of the 36 health units (19%) provided online food safety information tailored to the immune-compromised
- Of these seven, one provided original information while the other six provided links to Health Canada's guidelines
- These findings highlight the need for more targeted messaging on public health unit websites to ensure immune-compromised individuals can easily identify and access safe food handling information

Information provided to immune-compromised individuals	Number of Health units (%)
Provided their own food safety information specifically targeted to immune-compromised individuals	1/36= 2.7%
Had links to Health Canada's food safety guidelines targeted to immune-compromised individuals	6/36= 16.7%
Provided no information and/or links to food safety information targeted to immune-compromised individuals	29/36= 80.6%
Total	36/36=100%

Table 2. The breakdown of the amount of Ontario Health Units providing information to immune-compromised individuals

CONCLUSIONS

- There is a need for Ontario's health units to establish specifically tailored food safety information to the immune-compromised population
- A redesign of health unit websites is required to become user-friendly and accessible to all populations
- New protocol changes now require health units to provide food safety information to priority populations
- This information should be provided in multiple languages and be provided with cultural sensitivity to accommodate Ontario's diverse population

REFERENCES

- Lund, B. M., & O'Brien, S. J. (2011). The Occurrence and Prevention of Foodborne Disease in Vulnerable People. *Foodborne Pathogens and Disease*, 8(9), 961–973. <http://doi.org/10.1089/fpd.2011.0860>
- Government of Ontario. (2009). Public Health Units. In *Ontario Ministry of Health and Long-Term Care*. Retrieved March 10, 2018, from <http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>
- Government of Canada. (2015). Safe Food Handling for immunocompromised individuals. In *Health Canada*. Retrieved March 5, 2018, from <https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/alt/pdf/eating-nutrition/healthy-eating-saine-alimentation/safety-salubrite/vulnerable-populations/immune-immunitaire>
- <http://www.prhomecare.com/four-fun-at-home-activities-young-and-old-can-participate-in-together/>