

Chapter 3

Section 3.06

Ministry of Agriculture, Food and Rural Affairs;
Ministry of Health; and Public Health Units

Food Safety Inspection Programs

1.0 Summary

Foodborne illnesses in this province already account for 41,000 visits to hospital emergency rooms and 137,000 more to physicians' offices each year. Contaminated food kills about 70 people in Ontario annually and sends another 6,600 to hospital.

Symptoms of foodborne illnesses range from mild nausea and stomach pains to, in rare cases, long-term health problems, and even death. Most people have had a mild case of food poisoning at one time or another without being aware of it—according to 2014 Public Health Ontario statistics, an estimated 96% of cases go unreported.

Contamination of food can happen at any point in the food-supply chain, from the farm to transport to preparation and packaging.

Meat, for example, can be rendered unfit by unclean conditions at slaughterhouses, or by contamination at meat-processing plants. Water runoff and sprays containing bacteria, pesticides, and other chemicals can affect the purity of farm produce.

In addition, food at “food premises,” which Ontario law defines as any “premises where food or milk is manufactured, processed, prepared, stored, handled, displayed, distributed, transported, sold or offered for sale,” can be contaminated with bacteria from the use of unsanitary utensils and improper cooking methods.

In Ontario, prevention of foodborne illness is the responsibility of all three levels of government, which license and inspect food producers and food premises as follows:

- Meat, produce, fish and dairy produced, processed and consumed only in Ontario are generally the responsibility of the Ontario Ministry of Agriculture, Food and Rural Affairs (Ministry of Agriculture).
- Food premises are inspected by 35 Public Health Units in municipalities across Ontario that are funded by the Ontario Ministry of Health and by the municipalities in which they are based.
- Food imported into Ontario from other provinces or countries, or produced in Ontario for export outside the province, is inspected by the federal Canadian Food Inspection Agency (CFIA).

Forty-five percent of agriculture food products sold in Ontario are produced or processed within the province; the remaining half is imported from other provinces and countries, which means it is licensed and inspected by the federal CFIA.

It is important that the Ministry of Agriculture do an effective job of licensing and inspecting producers to ensure that food produced in this province for sale to Ontarians is free of any contamination that might affect their health. Similarly, the Public Health Units have an important responsibility to make sure that

food is handled hygienically and prepared correctly to protect consumers.

The Ministry of Agriculture spent about \$39.5 million in the 2018/19 fiscal year on food-safety licensing, inspections and other related services, while the Ministry of Health and municipalities spent about \$63.1 million the same year to fund the Public Health Units. Total average annual spending by the two ministries and municipalities over the last five years on food safety was about \$105.7 million.

While the risk of a mass foodborne-illness outbreak in Ontario is likely low, small-scale food incidents could have the potential to occur because it would take only one diseased animal or one unclean restaurant. Our audit identified several areas where improvements could further minimize food-safety risks to Ontarians. We noted, for example, the following issues with respect to Ministry of Agriculture licensing and inspection of Ontario producers:

- **Ninety-eight percent of meat tested negative for harmful drug residue, but in the 2% of cases of positive drug-residue test results, there was no follow-up with the farmers who raised the animals to prevent repeat occurrences.** Since April 2015, about 300 meat samples (representing about 2% of the meat tested) taken from provincially inspected slaughterhouses were found to contain drug residues above prescribed standards. The lack of an appropriate process to follow up and educate farmers whose animals have tested positive increases the risk of such meat entering the food chain.
- **Some pesticides banned for use in groundskeeping for health and safety reasons are found in Ontario-grown produce in levels exceeding Health Canada's allowable limits.** The *Cosmetic Pesticides Ban Act* lists 131 pesticides that cannot be used for cosmetic groundskeeping, in parks and yards, for example, because of potential health and environmental concerns. However, their use is allowed in agriculture for operational and economic reasons. Between 2014 and 2018, the Ministry of Agriculture tested about 1,200 Ontario-grown produce samples and found residues of 14 banned pesticides that exceeded Health Canada limits a total of 76 times.
- **Current legislation provides limited enforcement tools to compel fish processors to address food-safety infractions, resulting in repeat offences.** Fish processors who sell only in Ontario do not require a licence to operate. The Ministry of Agriculture, therefore, may not be able to close them because there is no licence to revoke if inspectors identify serious food-safety deficiencies. The Ministry also has no legal power to issue fines or compliance orders. Our sample review of 182 inspection reports on fish-processing plants found that two-thirds of the infractions noted in 2018/19 were repeat offences that had also been observed in each of the two previous years.
- **The Ministry of Agriculture did not receive sufficient information to provide sufficient oversight of the Dairy Farmers of Ontario (DFO).** The Ministry delegated inspection of cow-milk producers to the DFO in 1998. However, the Ministry did not consistently receive sufficient information from DFO to provide adequate oversight of the organization. We found that DFO's reports to the Ministry were high-level summaries that did not specifically identify non-compliant producers whose test samples repeatedly exceeded regulatory bacteria limits. In addition, the reports did not say what actions DFO took to address the issue of repeat offenders.
- **The Ministry of Agriculture did not have complete details about the activities of produce farmers in Ontario to select appropriate producers for sample-testing.** The Ministry's inventory of farmers did not contain complete information on production volumes, type of crops grown, and where the produce

was sold. Such data would be useful to determine a risk-based food-sample-testing plan.

We noted the following issues with Public Health Units, which are responsible to inspect food premises:

- **Public Health Units did not investigate complaints of foodborne illnesses on a timely basis.** Based on our review of inspection reports from 2016 to 2018 at five Public Health Units, we found that for those foodborne-illness complaints that required food premises inspections, the Public Health Units consistently did not inspect 20% of food premises within two days of receiving the complaint. The Public Health Units we visited informed us that a two-day timeline is considered a best practice.
- **Different inspection-grading systems for food premises among Public Health Units provided inconsistent information to the public across Ontario.** The degree of public disclosure of inspection results for food premises, along with the inspection-grading systems used by the 35 Health Units, varied across the province. The variations can be confusing to the public.
- **While not all special events require inspections, only about 12% of them within the jurisdictions of the five Public Health Units we visited were inspected in 2018, and only about 15% in 2017.** Public Health Units are required to assess food safety risks at temporary food premises, which include special events such as summer fairs and festivals, to determine if these premises require an inspection. However, we found that there are currently no minimum provincial requirements for the frequency of inspections of special events as there are for fixed food premises, such as restaurants. According to the US Centers for Disease Control and Prevention, special events can be high risk because the usual safety features of a kitchen, such as the ability to monitor food

temperatures and washing facilities, may not be available at outdoor events.

- **Some food premises were never inspected until Public Health Units received complaints from the public.** The lists of food premises kept by the five Health Units were not up to date. At the five Health Units we visited, we found 253 complaints received between 2016 and 2018 relating to food premises whose existence the Health Units were unaware of until they received the complaints.

There were also several areas where current regulations and standards may be insufficient.

For example:

- **Businesses operating solely within Ontario can market their products as “organic” even if they are not certified to the Canadian Organic Standards.** The CFIA requires certification for products labelled as organic when they are sold across provincial or international borders—but Ontario allows the sale of non-certified products labelled as organic within the province. In comparison, Quebec, Manitoba, Alberta, British Columbia, New Brunswick and Nova Scotia all have laws requiring that organic food be certified to the Canadian Organic Standards even when it is sold only within their borders. Based on our research, there are at least 34 organic producers in Ontario that are not certified to the Canadian Organic Standards but are advertising their products as “organic.” The majority of these organic growers sell their products through farmers’ markets. We also noted that routine sample testing of produce for pesticides residue is not required for the CFIA organic certification process.
- **Sheep milk and non-chicken eggs are not subject to mandatory regulation or inspection for quality assurance.** Milk from cows and goats, along with eggs from chickens, is regulated and inspected by the federal or Ontario governments, or both. However,

there is no mandatory regulation or inspection of milk from sheep and water-buffalo, or of eggs from other fowl. In comparison, Manitoba and Alberta regulate all animals kept for the purpose of producing milk.

Finally, we noted gaps in the inspections carried out by the different government entities responsible for food safety. We found, for example, that although the Ministry of Agriculture and the CFIA check for federal food-labelling requirements regarding allergens in provincial food-processing plants, they do not verify other labelling requirements, such as place of origin and nutritional value.

Overall Conclusion

We found overall that efficient systems and procedures are in place to keep the Ontario food supply safe, but that more could be done to improve the Ministry of Agriculture's licensing and inspection programs.

With respect to the Ministry of Health, we determined that the five Public Health Units we visited had effective systems and procedures in place to inspect food premises and conduct foodborne-illness surveillance and outbreak management in accordance with applicable legislation and regulations. However, we also noted several areas where improvements could be made, including inspection of online and home-based food businesses and special events. We also found inconsistencies between Public Health Units with respect to inspection policies and procedures, and public disclosure of inspection results both online and on-site at the food premises.

This report contains 21 recommendations, with 36 action items, to address our audit findings.

OVERALL MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs thanks the Office of the Auditor General for recognizing that we have efficient systems

and procedures in place to keep Ontario's food supply safe.

The report demonstrates that Ontario's food safety system is a network of government and industry partners, which relies upon robust science, laboratory and analytical capacity to protect the public. Ontario has enabling legislation that provides the foundation for oversight through a modern licensing, permitting and inspection program. Like other regulators, we use a progressive compliance approach, one that includes education, advisory services and enforcement. The Ministry appreciates the areas that the Auditor General has highlighted and is committed to using all tools available to support continuous improvement. We will carefully review the Auditor General's report and, where identified, work with our food safety partners to implement the report recommendations.

OVERALL MINISTRY OF HEALTH RESPONSE

The Ministry of Health welcomes the Auditor's recommendations on how the Ministry can ensure that the Ministry and Public Health Units are delivering on their mandate of providing safe food to the people of Ontario. We agree with the recommendations made to the Ministry and are committed to ensuring that the actions we take in response ensure strengthened accountability and value for money, and lead to continued improvements in food safety in Ontario.

The Ministry acknowledges the province's 35 Public Health Units' and municipalities' role as leaders and champions of evidence-based food safety program delivery, measuring and reporting on public health outcomes and supporting continuous quality improvements within an increasingly complex public health sector.

The Ministry also recognizes that there are further opportunities to increase the value for money and impact of the food-safety program and delivery in Ontario, as well as opportunities

to work with food-safety stakeholders to build on current efforts. While many of these can be realized through the Ministry's existing mandate to, among other things, support quality improvement, the Ministry recognizes that strengthening consistency across system partners would be beneficial for an even safer food system. The Ministry will continue to work with Public Health Units and municipalities to assess those opportunities going forward.

Currently, the government is taking a comprehensive approach to modernize Ontario's health-care system, which includes a coordinated public health sector that is nimble, resilient, efficient and responsive to the province's evolving health needs and priorities. The modernization will yield opportunities to better leverage existing frameworks for information-sharing, data collection and accountability to further support improvements to food safety.

2.0 Background

2.1 Overview

Public Health Ontario, a Crown agency, estimates that foodborne illness kills approximately 70 people in Ontario each year and sends another 6,600 to hospital. It also accounts for 41,000 visits to hospital emergency rooms and at least 137,000 visits to physicians.

Most people who have had a foodborne illness experience symptoms that are mild enough to pass unnoticed, such as nausea, stomach pain, vomiting and diarrhoea. In rare instances, they can trigger longer-term health issues such as chronic bowel and gastrointestinal problems, autoimmune disorders, neurological dysfunction and kidney failure. In rarer instances, they can lead to death, with the elderly and individuals with underlying health issues most at risk.

Food can become contaminated at various points in the supply chain, from feed and medication administered to animals, to processing, storage, handling and preparation of food.

A 2017 survey of 1,509 Canadians conducted by the Canadian Centre for Food Integrity, a not-for-profit organization dedicated to help the Canadian food system earn public trust through research and training, found that the number of Canadians who trust the food system is on the rise, but 54% still had concerns about food safety.

In Canada, regulatory responsibility for food safety is shared among all levels of government, with some interconnection of roles. **Figure 1** provides a high-level overview of the jurisdictional oversight of food safety in Ontario. **Appendix 1** provides a more detailed description of the roles and responsibilities of key stakeholders in food safety.

In the 2018/19 fiscal year, the province, through the Ministry of Agriculture and the Ministry of Health and the 35 Public Health Units, spent over \$102 million on food safety inspection programs and services. **Figure 2** provides a breakdown of this cost.

Appendix 2 provides an overview of the federal Canadian Food Inspection Agency (CFIA), Health Canada, the provincial Ministry of Agriculture and the Public Health Units' oversight of meat, fruits and vegetables, fish, dairy, eggs and organic foods in Ontario.

2.2 Legislation and Regulations

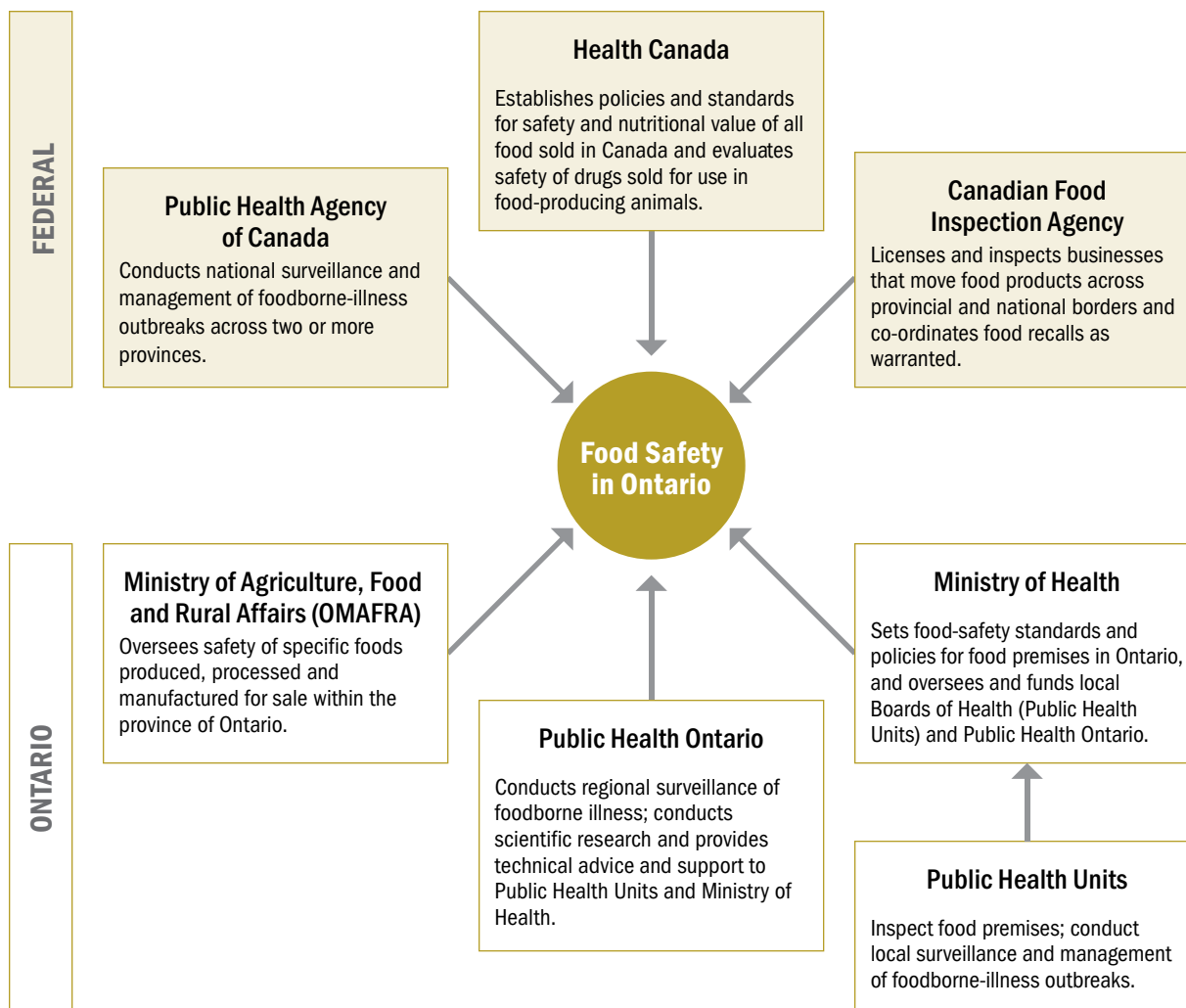
Provincial

Ontario's jurisdiction over food safety is governed primarily by four provincial laws:

- The *Food Safety and Quality Act, 2001 (Act)* outlines the Ministry's role in food safety. Under the Act, the Ministry of Agriculture has the authority to:
 - establish food-safety standards with respect to meat, eggs, foods of plant origins (such as fruits, vegetables, culinary herbs, nuts, edible fungi, maple syrup and

Figure 1: Overview of Food Safety Responsibilities by Jurisdiction

Source of data: Ministry of Agriculture, Food and Rural Affairs, and Ministry of Health



Note: This audit focused on the food-safety programs and services delivered by OMAFRA and by Public Health Units, which are overseen and partly funded by the Ministry of Health.

- honey) that are produced and consumed within Ontario;
- license, suspend or revoke licences of food processors; and
- inspect and detain food products and other relevant items such as records and equipment, issue orders, and/or lay charges.
- The *Fish Inspection Act* regulates the standards for fish processing and the sale of fish that is processed and consumed within Ontario.
- The *Milk Act* outlines the Ministry of Agriculture's role with respect to the inspection and testing of raw milk from cows and goats, as well as the licensing and inspection of dairy plants.
- The *Health Protection and Promotion Act* requires Public Health Units to inspect food premises for the purpose of preventing, eliminating and decreasing the effects of health hazards. Examples of food premises are restaurants, food courts, grocery stores, butcher shops, mobile food carts, banquet halls and catering facilities.

Figure 2: Breakdown of Ministry of Agriculture, Food and Rural Affairs, Ministry of Health and Municipal Food Safety Costs, 2014/15–2018/19 (\$ million)

Source of data: Ministry of Agriculture, Food and Rural Affairs, and Ministry of Health

Costs	2014/15	2015/16	2016/17	2017/18	2018/19
Ministry of Agriculture, Food and Rural Affairs					
Salaries and benefits	23.1	24.9	25.1	24.9	25.2
Services	5.8	6.4	5.9	5.7	3.8
Transportation and communications	1.3	1.4	1.4	1.3	1.2
Supplies and equipment	0.4	0.3	0.4	0.3	0.2
Laboratory testing	5.5	5.5	5.5	5.5	5.6
Other direct costs*	2.7	2.7	2.7	2.8	2.7
Transfer payments	1.3	1.4	0.9	2.5	0.9
Less: Revenue from licences	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Subtotal of Ministry of Agriculture Costs	40.0	42.5	41.8	42.9	39.5
Ministry of Health Food-Safety Expense	45.5	47.4	46.8	47.1	45.7
Municipal Food-Safety Expense	17.5	17.6	18.2	18.5	17.4
Total Ontario Food-Safety Costs	103.0	107.5	106.8	108.5	102.6

* Other direct costs include bad-debt expenses and occupancy-cost allocation.

Federal

The federal *Food and Drugs Act* and Regulations establish standards for the safety and nutritional quality of all foods sold in Canada.

The federal *Safe Food for Canadians Act* and Regulations generally apply to food that crosses provincial borders. However, some of the food labelling and advertising, and grading provisions, also apply to foods produced, processed and sold within the province.

In addition, the federal Safe Food for Canadians Regulations, 2019, outline the organic certification system known as the Canadian Organic Regime. Under the Regulation, organic food products must be certified according to the Canadian Organic Standards (see **Section 2.4** for details) if they:

- have an organic claim on the label and are sold between provinces or territories or imported; or
- display the Canadian Organic Logo on the label and are sold within or outside of Canada.

2.3 Food-Safety Programs of the Ministry of Agriculture

The Ministry of Agriculture licenses, inspects, performs ongoing laboratory testing of food products and engages in compliance and enforcement activities for meat, foods of plant origin, seafood, dairy and eggs. **Figure 3** provides a summary of key food-safety programs delivered by the Ministry of Agriculture in 2019. **Appendix 3** summarizes the Ministry of Agriculture's food-safety inspection and audit reports, while **Appendix 4** contains a summary of the Ministry of Agriculture's food-sample test results from 2014/15 to 2018/19.

Meat

To help ensure a safe meat supply and reduce the potential for foodborne illnesses, the Meat Regulations of the *Food Safety and Quality Act* states that no one may sell, transport, deliver or distribute meat unless:

- the animal was inspected prior to slaughter and approved for slaughter, and the carcass was inspected following slaughter and

Figure 3: Food-Safety Programs under the Ontario Ministry of Agriculture, Food and Rural Affairs, 2019

Prepared by the Office of the Auditor General of Ontario

	Meat	Fruits and Vegetables	Fish and Seafood	Dairy
Licensing/ Registration	<ul style="list-style-type: none"> Licenses 122 slaughterhouses and 362 meat-processing plants Renewal of licences every 3 years 	<ul style="list-style-type: none"> No licensing requirements for the 1,871 produce farmers¹ 	<ul style="list-style-type: none"> No licensing requirements for the 100 processors 	<ul style="list-style-type: none"> Oversees third-party licensing of 3,452 cow-milk farms Registers 268 dairy goat farms Licenses 141 dairy-processing plants (includes 48 provincial plants and 93 dual-licence plants²)
Inspection/ Audits	<ul style="list-style-type: none"> Inspects slaughterhouses and all animals slaughtered for food³ Inspects high-risk and high-volume processing plants every 2–6 weeks Conducts annual audits of slaughterhouses⁴ Contracts with third parties to perform annual audits of processing plants 	<ul style="list-style-type: none"> Performs inspections as a result of complaints or adverse sample results 	<ul style="list-style-type: none"> Oversees third-party inspections of fish-processing plants twice a year 	<ul style="list-style-type: none"> Oversees third-party inspection of cow-milk farms at least every 2 years Inspects goat-milk farms and provincial dairy-processing plants annually
Sampling	<ul style="list-style-type: none"> Risk-based sample testing of carcasses and ready-to-eat meats for bacteria and chemical residue 	<ul style="list-style-type: none"> Risk-based sample testing for bacteria and chemical residue 	<ul style="list-style-type: none"> Performs bacterial swabs of equipment and food-contact surfaces at processing plants 	<ul style="list-style-type: none"> Oversees third-party sample testing of cow-milk farms for bacteria and inhibitors Regulatory sample testing of goat-milk farms for bacteria and inhibitors Risk-based sample testing of provincial dairy plants
Compliance Tools	<ul style="list-style-type: none"> Warning letters Compliance orders Suspend production Detain or dispose of carcasses and/or meat products Withdraw inspection services Suspend or revoke licence Prosecution 	<ul style="list-style-type: none"> Warning letters Compliance orders Detention, seizure or disposal of produce 	<ul style="list-style-type: none"> Warning letters Detain products, make arrests 	<ul style="list-style-type: none"> Goat and Cow Farms: warning letters, disposal of milk, production shutdown, financial penalties (cow farms only) Dairy Processors: warning letters, detention or disposal (after a hearing) of product, issue a licence with conditions (e.g., shortened licence), revoke or suspend a licence (after a hearing)
Other food-safety services	<ul style="list-style-type: none"> Provides education, outreach and advice to producers and processors Maintains online food-safety-reporting tool for public use Research and supports regulatory efforts, food-safety research (e.g., post-secondary institutions) and co-ordinates with other agencies to address foodborne-illness outbreaks Administers cost-sharing program for farmers and food processors (OAGO audited in 2017) 			

1. Number of fruit and vegetable farmers in Ministry of Agriculture, Food and Rural Affairs database as of August 2019.

2. Dairy-processing plants that export outside Ontario require dual licensing from both the provincial and federal governments.

3. An inspection is the routine monitoring and review at food premises of employee hygiene and operational standards, collection of samples and verification of adherence to written programs for such areas as sanitation and pest control.

4. An audit is an annual comprehensive review of plant operations to verify and ensure compliance with legislation and regulations.

approved for use as food in accordance with the Meat Regulations;

- the animal was slaughtered in a plant that is licensed provincially or federally; and
- the meat is stamped, labelled or tagged with an inspection legend.

At slaughterhouses supplying the Ontario market only, every single animal must be examined pre- and post-slaughter by Ministry of Agriculture inspectors to ensure animal health and welfare standards are met and it is disease-free and fit for human consumption. Inspectors also take product and environmental samples for laboratory testing for bacteria and chemical residues. Slaughterhouses are also audited by a Ministry of Agriculture veterinarian yearly to ensure compliance with food-safety and animal-welfare legislation.

The Ministry of Agriculture also performs a risk assessment at each Ontario meat-processing plant under its jurisdiction to determine the frequency of inspections. The risk assessment is done annually or whenever major changes that could affect the food safety of the plant occur—when alterations are made, for example, that impact the production flow or implementation of a food-safety program. High-risk plants are to be inspected every two weeks, moderate-risk ones every three weeks and low-risk plants every six weeks. The Ministry of Agriculture also conducts annual audits of all meat-processing plants for compliance with food-safety legislation and policies.

In Canada, growth hormones are approved for use in beef cattle but not in dairy cattle, chicken, pork or any other animal raised for food. Growth hormones are used in beef cattle to increase the weight of animals while using less feed. The federal government regulates the use of growth hormones.

Foods of Plant Origin (Such as Fruits and Vegetables)

Producers of foods of plant origin who export a portion of their produce outside Ontario are licensed and inspected by the CFIA. There are no licensing

requirements for producers of fruits, vegetables, sprouts, herbs, edible fungi, nuts, maple syrup and honey that are sold only in Ontario.

The Ministry of Agriculture does not routinely inspect farms but it regularly tests produce samples from farmers' markets, retail stores and wholesalers for chemical residues and bacteria, and for compliance with labelling requirements such as the origin of the produce or the grade of maple syrup. The Ministry of Agriculture will conduct inspections when an issue such as a complaint or an adverse test result has been brought to its attention.

The Ministry of Agriculture's sample-testing selection is based on analysis of a number of risk factors such as the physical characteristics of the product and susceptibility to contamination, how often the produce is consumed by Ontarians, whether it is eaten raw, and the compliance history of a producer, including past sample test results and any foodborne-illness outbreaks.

Pesticide contamination is typically a result of improper use of a chemical, including its use on a crop for which it was not intended, incorrect dilution of the concentrate before spraying, wind carrying the spray to nearby fields, and harvesting produce too soon after spraying.

Since pesticides may be harmful to humans or the environment, they must be registered with Health Canada's Pest Management Regulatory Agency before use. The federal *Pest Control Products Act* sets the maximum allowable levels of residue that may be found in food in Canada. The Ministry of Agriculture must observe these limits when it monitors chemical contamination of locally grown foods.

Fish and Seafood

There are about 170 fish- and seafood-processing plants in Ontario, along with 22 fish farms.

There are no licensing requirements for 100 of the plants because they sell only in Ontario, but they are inspected by the Ministry of Agriculture at least twice a year. The Ministry of Agriculture's

inspections include checking for proper controls over sanitation, hygiene, equipment maintenance, water source, waste disposal, receiving, transportation and storage of food.

It also routinely takes environmental samples such as swabs of surfaces that come into contact with food at fish-processing facilities to test for pathogens (bacteria, viruses or other microorganisms that can cause disease) to verify the effectiveness of cleaning and sanitation procedures.

The CFIA licenses, inspects and does sample testing at the other 70 fish- and seafood-processing plants that export outside the province. It also sample-tests processed fish and seafood sold to the Ontario public that may include imports and Ontario-processed fish and seafood products.

Of the 22 fish farms, 12 export their products and 10 produce only for the Ontario market. Of the 10 that sell only in Ontario, nine produce rainbow trout and one produces tilapia and barramundi.

The Ministry of Agriculture does not inspect fish farms because the *Fish Inspection Act* does not give the Ministry authority over the 10 farms that produce solely for the Ontario market. The Act provides authority for fish products only when they enter the food system through handling, processing, sorting, grading, packaging, marketing or transporting. These farms are licensed by the Ministry of Natural Resources and Forestry, which conducts regular water quality and sediment monitoring on six cage aquaculture sites in Ontario to assess their impact on the aquatic environment.

The CFIA only licenses operators of farms that produce, process, treat, preserve, grade, package or label fish and seafood for export outside the province. The CFIA inspects only licensed farms and tests samples of fish and seafood sold to the Ontario public that may include imports and Ontario-raised fish. The CFIA's sample testing looks for heavy metals (such as mercury), bacteria and chemical residues (such as antibiotics).

Dairy

The Ministry of Agriculture oversees the registration and inspection of all 3,504 cow-milk farms and 268 goat-milk farms that supply milk for processing in Ontario dairy plants. The Ministry of Agriculture also licenses all 141 dairy-processing plants in Ontario, including 48 Ontario-licensed plants and 93 plants licensed by both the federal and provincial governments (dual-licensed) that export outside the province.

For raw cow milk, the Ministry of Agriculture has delegated the responsibility for administering and enforcing various quality and safety provisions under the *Milk Act* to the Dairy Farmers of Ontario (DFO). DFO inspects dairy farms at least once every two years, and oversees the monthly collection and testing of milk samples for bacteria and inhibitors such as antibiotics or other chemicals at each farm. DFO is also responsible for training, certifying and inspecting Bulk Tank Milk Graders (Graders) of raw cow milk, who are responsible for grading and sampling milk, and ensuring the quality is acceptable, before loading it into trucks at the farms and delivering it to dairy processors. DFO is also responsible for inspecting milk tank-trucks used to pick up and deliver milk.

The use of growth hormones to increase milk production for animals kept for the purpose of milking is illegal in Canada. In Ontario, dairy farmers are to produce milk volumes according to their quota allotment set by the Dairy Farmers of Ontario. If dairy farmers produce more milk than their quota allows, they will not be paid for it and the excess milk will be disposed of.

For raw goat milk, the Ministry of Agriculture inspects all registered dairy goat farms at least once annually and trains, certifies and inspects Graders of raw goat milk. The Ministry of Agriculture also inspects the tank-trucks used to pick up and deliver milk. Graders collect monthly milk samples for bacteria and inhibitor testing.

At dairy-processing plants, raw milk is processed into fluid milk (that is, homogenized, 2%, and so on) and other dairy products such as butter,

cheese, yogurt and ice cream. The Ministry of Agriculture is responsible for the inspection of the 48 provincially licensed dairy-processing plants, and conducts sample testing for bacteria and inhibitors on finished dairy products, and environment testing in each plant up to four times per year based on a risk assessment.

Eggs

Grading of chicken eggs fall under the jurisdiction of the CFIA, which requires that all chicken eggs be graded at federally registered grading stations. The stations wash, candle, weigh and pack the eggs into containers with the applicable federal grade. (In the candling process, a light is used to inspect eggs for any interior defects and cracks in the shell.) In addition, the CFIA also collects egg samples for bacteria and chemical-residue testing.

Ungraded eggs may only be sold to an egg dealer or egg-grading station, although farmers may sell directly to consumers on the farm. Egg dealers are operators licensed by Egg Farmers of Ontario, which is responsible for transporting ungraded eggs from farmers to grading stations.

2.4 Organic Foods

According to regulations under federal legislation, the *Safe Food for Canadians Act, 2012*, food products must be certified as organic according to the Canadian Organic Standards if they are sold between provinces or territories, or imported, or display the Canadian Organic Logo.

The use of the organic logo is permitted only on products that have an organic content greater than or equal to 95%, and that have been certified according to the Canadian Organic Standards, developed by the federal Canadian Food Inspection Agency (CFIA). The CFIA is responsible for monitoring and enforcing standards for organic products across the country in accordance with the Canadian Organic Standards.

The Standards include a detailed set of principles, guidelines and permitted substances that apply to the organic certification process. According to the Standards, organic livestock must have access to more space, natural light, the outdoors and habitats that encourage roosting, rooting and grazing. **Appendixes 5 and 6** summarize the farming standards for organic livestock in Canada. Organic produce farmers are not allowed to use synthetic fertilizers and pesticides. **Appendix 7** summarizes the farming standards for organic produce.

There are several certification bodies in Ontario, all accredited by the CFIA, that certify organic farms and food-processing operations. Organic certifications are renewed annually after an on-farm inspection to check for compliance with the organic standards. When a producer fails to correct any issues of non-compliance, certification bodies have the power to revoke or suspend certification.

Imported organic products must also meet the requirements of the Canada Organic Standards and may be certified either by a CFIA-accredited certification body or by a certification body accredited by that foreign country and recognized by Canada through an equivalency arrangement—a trade agreement made with another country after assessing and comparing the two regulatory systems, including the organic standards, to ensure they are consistent. Currently, Canada has established organic equivalency arrangements with the US, the European Union, Costa Rica, Japan and Switzerland. Organic products from countries that do not have organic equivalency arrangements with Canada and do not meet the Canadian Organic Standards cannot be imported into Canada as organic products.

2.5 Food-Safety Programs of the Public Health Units

The Ministry of Health sets food-safety standards and policies through the Ontario Public Health Standards. The Standards identify the minimum expectations for public health programs and

Figure 4: Food Safety Oversight by Public Health Units

Prepared by the Office of the Auditor General of Ontario

Public Health Units		
Inspections of Food Premises	Investigations of Foodborne Illnesses	Education, Training and Other Services
Inspect restaurants, grocery stores, mobile food trucks, special events, banquet halls and other food premises, and provide education and consultation to owners and operators	Conduct investigations/inspections of local foodborne-illness outbreaks in food premises, and reporting diseases of public-health significance	Provide training for food-handler certification, respond to food-related complaints and provide public with food-safety information

services to be delivered by Ontario's 35 Boards of Health (Public Health Units). One of those programs is food safety. **Appendix 8** provides information on the 35 Public Health Units as of December 31, 2018.

The Ministry of Health also has oversight of legislation and regulations such as the Food Premises Regulation under the *Health Protection and Promotion Act*, which establishes the food safety requirements for food premises.

As shown in **Figure 4**, Ontario's 35 Public Health Units are responsible for implementing public health programs and services, which include inspecting food premises to ensure compliance with food handling and sanitation requirements under the Food Premises Regulation and *Health Protection and Promotion Act*. Each Public Health Unit is governed by a local independent Board of Health, which is accountable to the Ministry of Health for meeting provincial standards, including delivering the food safety programs and services specified in the Ontario Public Health Standards.

The Ministry of Health's Foods Safety Protocol requires Public Health Units to maintain a list of all food premises in their jurisdiction. In 2018, Ontario had over 73,000 food premises that were open year-round and over 7,500 seasonal food premises.

The Public Health Units must conduct an annual risk assessment using the Ministry's risk categorization tool and the Food Safety Protocol to determine the level of risk and minimum inspection frequency associated with each of the fixed food premises in their region. Factors that may indicate high risk include:

- food premises serving vulnerable populations, such as hospital patients, seniors and children, or those performing extensive food handling (three or more preparation steps);
- full-service banquet halls as well as premises that primarily serve catered meals off-site; and
- food premises with a previous history of a confirmed foodborne illness or outbreak as well as previous infractions.

Based on the assessed risk, as shown in **Figure 5**, Public Health Units inspect each food premises anywhere from every four months for high-risk facilities to every 12 months for low-risk ones. Food premises that offer only low-risk pre-packed food are inspected every 24 months.

Public Health inspectors can issue tickets for non-compliance with regulations, issue summons for court appearances, destroy unsafe food, and close the food premises as long as a health hazard exists.

According to the Ministry's Public Health Standards, Public Health Units must maintain 24/7 access for the public to report foodborne illnesses, unsafe food-handling practices, consumer complaints and other food-related issues. The Public Health Units, in collaboration with the Ministry of Health and Public Health Ontario, also conduct surveillance by recording, tracking and investigating all suspected and confirmed foodborne-illness cases, and managing outbreaks.

Figure 5: Risk Categories and Frequency of Inspections of Food Premises

Source of data: Ministry of Health and Public Health Units

Risk Category	Frequency of Inspection
High – Food premises represent high likelihood of foodborne-illness outbreak (e.g., banquet halls with food preparation, smoked meat restaurants)	At least once every 4 months
Moderate – Food premises represent moderate likelihood of foodborne-illness outbreak (e.g., sushi restaurants, grocery stores)	At least once every 6 months
Low – Food premises represent low likelihood of foodborne-illness outbreak (e.g., convenience stores, cafés serving tea, coffee and prepackaged foods)	At least once every 24 months for food premises that sell only pre-packaged non-hazardous food, and at least once every 12 months for all other low-risk food premises

Note: The risk categorization of food premises is based on multiple factors such as food preparation steps, history of inspection results, length of time in business, population served and any links to confirmed foodborne illness. The same type of restaurant can be categorized in different categories based on these factors. Therefore, the restaurant types listed under each category are used here only as examples.

3.0 Audit Objective and Scope

The objective of our audit was to assess whether the Ontario Ministry of Agriculture, Food and Rural Affairs (Ministry of Agriculture) has effective systems and procedures in place to:

- ensure licensing, inspection and sampling programs are delivered economically and efficiently in accordance with applicable legislation, regulations, agreements and policies such that food-safety risks for commodities farmed, processed and marketed within Ontario are managed to protect the health of Ontarians; and
- measure and publicly report periodically on the results and effectiveness of food-safety programs and services.

In addition, we assessed whether the Ministry of Health (Ministry) through the Public Health Units, has effective systems and procedures in place to:

- inspect food premises and conduct foodborne-illness surveillance and outbreak management economically and efficiently to prevent the effects of foodborne illnesses, in accordance with applicable legislation, regulations, agreements and policies; and

- measure and publicly report periodically on the results and effectiveness of food premises inspection programs.

We identified the audit criteria we would use to address our audit objective. These are listed in **Appendix 9**. These criteria were established based on a review of applicable legislation, policies and procedures, and internal and external studies. Senior management at the Ministry of Agriculture and the Ministry of Health reviewed and agreed with our audit objectives and associated criteria.

Our audit work, conducted at the Ministry of Agriculture’s office in Guelph between January 2019 and August 2019, examined its oversight of food-safety programs including licensing, inspections and laboratory testing of food producers and processors.

We also visited and performed audit fieldwork at five of the 35 Public Health Units—specifically, in Toronto, York, Peel, Simcoe Muskoka and Ottawa—from April 2019 to August 2019. Our selection of Public Health Units was based on their number of food premises, especially high-risk premises, population of the region and total expenditures on food-safety programs. Overall, the five Public Health Units are responsible for about 49% of all food premises and 50% of the total Ministry of Health food-safety expenditures in Ontario.

At the Public Health Units, we examined their food-safety programs, including food-premises

inspections, food-handling certifications and food-safety public education and outreach. Our audit also assessed whether there is timely communication, information-sharing and collaboration between the Ministry of Agriculture, the Public Health Units and other system partners such as the federal Canadian Food Inspection Agency (CFIA) and Public Health Ontario (PHO) in the event of outbreaks of foodborne illness or food recalls.

We interviewed senior management and staff, and examined related data and other documents from the Ministry of Agriculture, Public Health Units, the CFIA, Health Canada, PHO and the Ministry of Health to obtain an understanding of each entity's involvement with food safety in Ontario. We also shadowed inspections of producers, processors and food premises, and visited a number of farms with inspectors from the Ministry of Agriculture and Public Health. We also commissioned the University of Guelph to test a sample of fish, and of organic and regular produce, locally grown and imported, for chemical residue and bacteria count.

We also interviewed stakeholders such as the Dairy Farmers of Ontario, Ontario Dairy Council, Ontario Sheep Farmers, Canadian Sheep Federation, Ontario Independent Meat Processors, College of Veterinarians of Ontario, Ontario Food Terminal, Canadian Produce Marketing Association, Ontario Fruit and Vegetable Growers' Association, Agricorp, Ministry of the Environment, Conservation and Parks, Health Canada's Pesticide Management Regulatory Agency, Ontario Aquaculture Association, Ministry of Natural Resources and Forestry, Organic Council of Ontario, Ontario Restaurant Hotel and Motel Association, Cancer Care Ontario and the Ontario Public Health Association.

In addition, we reviewed relevant research and best practices of food safety in Canada and other jurisdictions. We also engaged an independent advisor with expertise in food microbiology and food safety to assist us on this audit.

4.0 Detailed Audit Observations: Inspections of Food Producers and Processors

4.1 Meat

For the 2018/19 fiscal year, 84% of all red-meat slaughters (e.g., pork, beef, lamb) and 92% of all white-meat slaughters (e.g., poultry) carried out by 29 slaughterhouses in Ontario were under the oversight of the Canadian Food Inspection Agency (CFIA) because these plants also export outside the province. There is no information on how much meat slaughtered in these plants is consumed in Ontario. The remaining 16% of red meat and 8% white meat is slaughtered strictly for consumption in Ontario through 122 slaughterhouses licensed by the Ministry of Agriculture.

There were 362 meat-processing plants that supply meat exclusively for Ontario consumption inspected by the Ministry of Agriculture during the 2018/19 fiscal year. Another 186 meat-processing plants in Ontario export outside the province and are licensed and inspected by the CFIA. However, there is no data on the percentage of meat processed in Ontario that comes from facilities inspected by the Ministry of Agriculture and the percentage that comes from facilities inspected by the CFIA.

4.1.1 Ninety-Eight Percent of Inspected Slaughterhouse Meat Tested Negative for Harmful Drug Residue

Ninety-eight percent of meat at provincially inspected slaughterhouses that the Ministry of Agriculture randomly tested between April 2015 and March 2019 tested negative for harmful drug residues. This means that any potential drug residues that may have existed were at levels below the allowable limit set by Health Canada. However, no

follow-up was done by the CFIA nor the Ministry of Agriculture at the farms that raised the animals for the 2% that did test positive for drug residues.

As of April 2015, the CFIA no longer follows up with the farmer on positive drug-residue results in meat originating from provincially inspected slaughterhouses. Since then, the Ministry of Agriculture has had about 300 positive drug-residue results (meaning that about 2% of all slaughterhouse meat tested has tested positive), all shared with the CFIA, but there has been no follow-up with the farms.

Prior to April 2015, the Ministry of Agriculture had a process in place to send all positive test results to the CFIA, which would then follow up with the farmers to confirm the level of antibiotics and drugs used and to educate them about Health Canada's prescribed standards.

The Ministry of Agriculture's meat-sampling program at provincially inspected slaughterhouses tests animal organs and muscle tissue for antibiotics and other drug residue in slaughtered animals. For this testing, the Ministry of Agriculture uses Health Canada's prescribed standards on allowable limits for antibiotics and other chemical compounds. If the Ministry of Agriculture's sample tests show a presence of antibiotics and other drug residues above allowable limits, it can condemn the entire carcass to ensure meat with residue does not enter the food chain.

However, the lack of an appropriate process to follow up with and educate farmers whose animals have tested positive for drug residues above prescribed standards increases the risk of such meat entering the food chain because the Ministry only tests animals on a sample basis. Since it is not reasonable to test every animal, the Ministry must ensure that farmers do not produce animals with drug residues above prescribed standards. If these farmers are not aware that their animals have drug residues above allowable limits, they will not be able to take corrective action on their remaining and future animal stocks.

Neither the Ministry of Agriculture nor the CFIA has the authority to follow up with farmers who originally sold the animals with antibiotics and drug levels above the allowable limits to slaughterhouses. The federal *Food and Drugs Act* does not regulate the use of antibiotics and drugs on farms. The federal *Feeds Act* provides regulatory authority only for the mixing and selling of livestock feed and does not provide authority in the use of the feed. As a result, the Ministry of Agriculture can only encourage provincially inspected slaughterhouse operators to follow up positive drug test results with their suppliers.

Antibiotics are commonly given to cows, hogs and poultry to treat infections, to prevent and control diseases from spreading, and to enhance growth. While harmful bacteria can be killed by cooking to the correct temperature, cooking does not remove antibiotic and drug residues in meat.

RECOMMENDATION 1

To reduce the risk of meat with drug-residue levels above prescribed standards from entering the food chain, we recommend that the Ontario Ministry of Agriculture, Food and Rural Affairs, in collaboration with the Canadian Food Inspection Agency:

- establish clear roles and responsibilities in the areas of reviewing positive drug-residue results with the farmers who raised the animals; and
- formally penalize farmers who continue to sell animals with drug-residue levels above the allowable limit.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that unsafe drug residues should not enter the food system. As part of the Ministry's food safety oversight role, we have a strong surveillance and monitoring program in place at provincially inspected slaughter facilities. Since April 2015, we have tested over

17,000 meat samples for antibiotics and other drug residues, and found adverse levels in the about 300 cases you have mentioned.

We follow up by taking all necessary actions at the meat plant, including condemning unsafe meat products. We take strong compliance actions for plants with repeat infractions, using compliance orders, imposing licensing conditions and implementing increased surveillance where necessary. We also implement more stringent testing programs for livestock groups that show a higher incidence of adverse results.

Of the 1,359 samples tested through the random monitoring program in 2018/19, less than 0.6% tested above the prescribed limits, showing that while most farmers in Ontario are using livestock medicines responsibly, regulatory oversight is needed. We will continue targeted outreach to meat plant operators about the risks of drug residues and effective traceability so they can be selective about their source of animals.

We immediately forward any adverse test results to the Canadian Food Inspection Agency (CFIA) for risk assessment and follow-up, including product recall under the federal *Food and Drugs Act*. To ensure effective follow-up with farmers, we will ask the CFIA to share its follow-up plan from Ministry referrals and report back on actions taken. We will continue to support the CFIA in its compliance response.

We will work with the CFIA over the next 12 months to clarify roles and responsibilities for reviewing positive drug-residue results with farmers.

We will also work jointly with the CFIA over the next 18 months to raise awareness across the supply chain through an outreach/education campaign about the responsible use of livestock medicines.

4.1.2 Different Criteria Used by Ministry of Agriculture and Public Health Units to Inspect Meat-Processing Facilities

We found that the Ministry of Agriculture and the Public Health Units used different criteria when inspecting high-risk meat processors, such as butchers and restaurants that smoke or cure meat. Ministry of Agriculture inspectors enforce the Meat Regulations for such premises while Public Health Inspectors enforce the Food Premises Regulation.

The Ministry of Agriculture's Meat Regulations define high-risk meat activities as the canning, curing, dehydrating, sausage-making, fermenting, or smoking of meat. These activities are considered to be of higher risk because there is more room to introduce biological, physical or chemical hazards. Specific time and temperature combinations, water activity or pH levels must be met during processing to prevent pathogen growth. This is particularly critical for ready-to-eat meat, as there is no further cooking prior to consumption. Therefore, all premises conducting such meat processes require licensing and inspection by the Ministry of Agriculture, except for:

- businesses such as restaurants and caterers that mostly do food service such as preparing and serving meals;
- food processors that make products containing less than 25% meat such as pizza, sandwiches or soups; or
- meat-processing plants that produce less than 20,000 kg of meat annually and engage in lower-risk activities such as cutting and packaging.

Therefore, a restaurant or a butcher conducting high-risk meat-processing activities is exempt from Ministry of Agriculture licensing but is inspected by a Public Health Unit if it mainly operates as a food-service premises. While the Ministry of Health, in partnership with the Ministry of Agriculture, provided training to Public Health Inspectors on high-risk meat processing, there is no requirement for Public Health Inspectors to inspect these

facilities in accordance with the criteria outlined in the Meat Regulations.

We found that the Public Health Units neither track the number of food premises that fall under this category nor have a formal inspection checklist specifically used for high-risk meat processing. For example:

- While Ministry of Agriculture inspections have specific guidelines and procedures for checking cooling rate, nitrate and nitrite levels and humidity conditions, Public Health Units are not required to check for these items under the Food Premises Regulation.
- The Ministry of Agriculture guidelines also address specific risk materials such as brain tissue and spinal cords, and inedible by-products in meat processing, but these materials are not part of the Public Health Units' required inspection.

RECOMMENDATION 2

To ensure more consistent inspections of facilities that engage in high-risk meat processing such as smoking and curing, we recommend that the Ministry of Agriculture, Food and Rural Affairs (Ministry), in collaboration with the Public Health Units, develop Ministry-approved inspection guidelines for Public Health Unit inspectors to follow when inspecting such facilities.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that we can help public health inspectors be more consistent by providing them with expert technical advice related to the production of smoked or cured meat products, and support them in their development and delivery of inspection resources tailored to their needs, including enhancing training materials and guidance documents.

To produce safe food, critical steps must be taken during processing. The production of higher-risk meat products, especially ready-to-eat meat products, requires additional safeguards to prevent microbial growth and ensure food safety.

The Ministry has a comprehensive inspection system for meat plant operators conducting higher-risk meat processing that includes licensing, compliance verification, product testing and environmental swabbing. The Ministry provides technical resources and guidance for meat plant operators to ensure safe production of these types of meat products.

The Ministry will continue to provide information to Public Health Units to identify facilities producing higher-risk meat products such as smoked and cured meats that meet the regulatory exemption for provincial licensing.

The Ministry will engage immediately on this recommendation. We will collaborate with the Ministry of Health and Public Health Ontario in their oversight of these higher-risk activities in food premises by developing additional guidelines and providing support to their training and education requirements for public health inspectors. We will target completion of the materials in the next 12 months.

4.2 Fruits and Vegetables

The Ministry of Agriculture regularly tests Ontario-grown produce samples from farmers' markets, retail stores and wholesalers for chemical residues and bacteria. According to the latest 2015 data from Statistics Canada, about 30% of produce sold in Ontario was grown in the province, about 3% came from other provinces and the remaining 67% was imported from other countries. The Ministry of Agriculture has oversight of the 30% that was grown in Ontario while CFIA is responsible for the remaining 70% that came from other provinces and countries.

Based on our review, the food-safety risk of Ontario-grown produce is low. Between 2014 and 2018, the Ministry of Agriculture found that 54 in about 3,900 samples of Ontario-grown produce, or 1.4%, tested positive for illness-causing bacteria, and 54 in about 1,200 samples of Ontario-grown produce, or 4.5%, contained pesticides in concentrations higher than those allowed by Health Canada. Generally, the level of contamination was low and the affected volume of produce was small.

We also found that where contamination was detected through sample testing, the Ministry of Agriculture would immediately notify the farmer, then follow up with a visit to the farm to investigate and advise the farmer regarding potential causes of contamination that it observed on the farm. The Ministry of Agriculture also immediately notifies the Ministry of Health, relevant Public Health Units and the CFIA of an adverse bacteria or chemical residue testing result in case a recall of the produce is required. The CFIA communicates recall decisions and assists companies to implement the recall.

We commissioned the University of Guelph to test 40 samples of Ontario-grown and 40 samples of imported produce, including peaches, grapes, lettuce and spinach from retail grocery stores and the Ontario Food Terminal, which is the largest wholesale fruit and produce distribution centre in Canada. Of the 80 samples, we found three imported peach samples and one Ontario-grown spinach sample that tested positive for *Listeria*. No produce sample tested positive for *E. coli* and *Salmonella*. The tests also did not identify health concerns regarding the pesticide residues detected in the produce we tested since the pesticide levels were all below Health Canada's allowable limit.

4.2.1 Pesticides Banned for Groundskeeping Are Found on Ontario Produce in Levels Exceeding Health Canada's Allowable Limit

We noted that some of the 131 pesticides banned in Ontario for cosmetic purposes such as general

groundskeeping—on lawns and parks, for example—are found on Ontario produce in levels exceeding Health Canada's allowable limit.

The *Cosmetic Pesticides Ban Act* (Act) came into effect in 2009 to protect against the unnecessary health and environmental risks of pesticides and prevent a patchwork of varied municipal bans. The Act lists 131 pesticides that cannot be used for general groundskeeping on lawns, vegetable and ornamental gardens, patios, driveways, cemeteries, parks and school yards. There are lower-risk pesticides, biopesticides and alternatives to pesticides that can be used instead.

However, the 131 pesticides banned for general groundskeeping are allowed in agricultural farming because the Ministry of the Environment, Conservation and Parks deemed it necessary from an operational and economic perspective. Health Canada has established allowable maximum residue levels for the majority of the 131 pesticides—a safe concentration of residue expected to remain on food products when a pesticide is used according to label instructions.

Between 2014 and 2018, the Ministry of Agriculture sample-tested about 1,200 Ontario-grown produce items and found residues of 14 banned pesticides in excess of Health Canada's allowable maximum levels a total of 76 times. However, the CFIA assessed that a food recall was not required because the risk to the public was low, based on the affected volume of produce, the residue concentration and other factors such as the toxicity of the pesticide found.

The Ministry of the Environment, Conservation and Parks is responsible for regulating the sale, use, transportation, storage and disposal of pesticides in Ontario. All farmers in Ontario must be certified before they are allowed to buy and use certain pesticides on their farms.

The Ministry of Agriculture, in collaboration with the Ministry of the Environment, Conservation and Parks, delivers an education and training program for farmers, including a formal certification

course that covers the proper use of pesticides and alternatives to the use of pesticides.

However, our review of a sample of 30 cases of Ontario-grown produce that tested positive between 2014 and 2018 for pesticides in concentrations higher than those allowed by Health Canada found that the causes of pesticide contamination of produce were:

- pesticide spray drifting from adjacent crops in 13 cases;
- farmers unaware of which pesticides were approved for use on which crops in 12 cases, meaning that they may be using a pesticide that has been approved for one kind of crop on another kind of crop for which the same pesticide has not been approved;
- produce harvested too soon after pesticides were applied in two cases; and
- cross-contamination from other crops during packaging in the remaining three cases.

RECOMMENDATION 3

To improve the safety of Ontario produce, we recommend that the Ministry of Agriculture, Food and Rural Affairs, in collaboration with the Ministry of the Environment, Conservation and Parks, assess the education and training it provides to farmers to ensure that it fully addresses:

- the use of lower-risk pesticides, biopesticides and alternatives to pesticides in agricultural farming; and
- which pesticides are approved for use on which crops, and how long to wait after applying pesticides to harvest crops.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that farmer education about the proper use of pesticides is part of ensuring safe produce in Ontario.

The Ministry has a comprehensive suite of programs and tools to educate farmers in the

proper use of pesticides, and data from the Ministry's fruit and vegetable pesticide testing program demonstrates that most Ontario farmers are applying pesticides responsibly.

Should adverse levels be detected through product testing, we review applicator certification and application records, confirm the use of pesticides according to label instructions, and provide targeted instruction to farmers.

There is a current regulated requirement for Ontario farmers to complete training and certification for the use of most, but not all, restricted and commercial pesticides. The provincial government, through the Ministry of the Environment, Conservation and Parks, has recently introduced proposed amendments to the *Pesticides Act*, to align provincial pesticide classes to the federal system, regulated through Health Canada's Pest Management Regulatory Agency. If the amendments are passed, all Ontario farmers will require training and certification for the use of all restricted and commercial agricultural pesticides.

Within the next 18 months, the Ministry will work with the Ministry of the Environment, Conservation and Parks and industry to review and improve training material to ensure it addresses the use of the correct pesticides for each crop, harvest timing after application, and the use of lower-risk pesticides, biopesticides and alternatives.

4.2.2 Glyphosate, Banned in Some Countries, Commonly Used on Ontario Soybean and Corn Farms

We noted that glyphosate, a herbicide linked to cancer, was commonly used on the two highest-volume crops in the province—corn (including sweet corn) and soybeans. According to the Ministry of Agriculture's most recent 2013/14 survey of Ontario farmers, glyphosate was the most widely used herbicide in Ontario, accounting for 54% of total pesticide use.

At the time of our audit, the Ministry of Agriculture confirmed that this herbicide continues to be used.

In 2015, the World Health Organization’s International Agency for Research on Cancer classified it as “probably carcinogenic” (or probably cancer-causing) in humans, based on sufficient evidence of carcinogenicity in experimental animals. On the other hand, the European Food Safety Authority concluded in November 2015 that glyphosate “is unlikely to pose a carcinogenic threat to humans.” In December 2017, the US Environmental Protection Agency, a government agency responsible for research, monitoring, standard-setting and enforcement activities to ensure environmental protection, arrived at the same conclusion as the European Food Safety Authority.

In 2017, Health Canada re-evaluated its assessment of glyphosate and concluded that food and drinking water exposure associated with the use of glyphosate is not expected to pose a risk to human health. As such, Health Canada has continued to allow the use of glyphosate in Canada and has established maximum residue levels. It is also commonly used in corn and soybean farming in other Canadian provinces.

Since 2017, there have been more studies on glyphosate use and its link to cancer. The April 2019 “Toxicological Profile for Glyphosate” by the US Agency for Toxic Substances and Disease Registry referenced three meta-analyses and a number of epidemiology studies that reported positive association between glyphosate use and non-Hodgkin’s lymphoma, a cancer originating in the lymphatic system. A 2019 study published by the University of Washington also found that people with high exposures to glyphosate have a 41% increased risk of developing non-Hodgkin’s lymphoma. We also noted that California courts ruled in 2019 that non-Hodgkin’s lymphoma had been caused in people who applied products containing glyphosate.

While Canada, the United States and the European Union still allow the use of glyphosate, some countries have banned the substance, including

Germany (effective 2020), France (2021) and Austria (2023).

The Ministry of Agriculture does not regularly monitor or sample-test sweet corn and soybeans for residues of glyphosate.

RECOMMENDATION 4

In order to protect consumers, we recommend that the Ministry of Agriculture, Food and Rural Affairs, in collaboration with Health Canada:

- add glyphosate to the list of chemicals to be monitored and tested as part of the regular pesticide-residue sample testing; and
- use the results of the testing to reassess whether glyphosate should be approved for use in farming and the appropriate maximum residues allowed in produce.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that a strong monitoring and enforcement regime is necessary to ensure responsible use of all pesticides.

The Health Canada Pest Management Regulatory Agency is responsible for pesticide regulation in Canada, including glyphosate. Health Canada registers pesticides after a stringent, science-based evaluation that ensures risks are within acceptable limits. Pesticides on the market are re-evaluated on a 15-year cycle to ensure the products meet scientific standards. Health Canada also promotes and verifies compliance of pesticide use and enforces situations of non-compliance warranting action.

Glyphosate was recently re-evaluated by Health Canada, and its continued use for agricultural purposes has been allowed for specific applications, with a maximum residue level for food products. As part of this recent re-evaluation, label requirements were changed to protect applicators, workers and bystanders,

and spray buffer zones are now required so as to protect land and water habitats.

The Ministry will implement a new two-year baseline sampling study to better understand the prevalence of glyphosate residues in produce starting in April 2020. Once the study is completed, the Ministry will share the results with the Pest Management Regulatory Agency to be included as part of any planned reassessments of the use of glyphosate.

4.2.3 Inventory of Produce Farmers Contains Insufficient Information

We noted that the Ministry of Agriculture's inventory of fruit and vegetable producers does not contain sufficient information to inform its sampling.

The Ministry of Agriculture collects samples of fruits and vegetables grown and consumed in Ontario from farmers' markets, sales at farms, retail stores and wholesalers to test for chemical residues such as pesticides and for bacterial contamination such as *E. coli* and *Salmonella*. It is therefore important for the Ministry of Agriculture to maintain an up-to-date list of farms and producers, along with producer information such as type of crops grown, production volumes and where the produce is sold, to ensure that produce from all suppliers, especially the larger ones, is considered when selecting samples for testing.

For example, between 2014 and 2018, the Ministry of Agriculture found 54 of about 1,200 samples of Ontario-grown produce, or 4.5%, contained pesticides in concentrations higher than those allowed by Health Canada. We reviewed 30 of these files and noted that the contaminated produce was determined to be of low risk to the public because the affected volume of produce was small and the residue concentration was low.

However, we found that the Ministry of Agriculture's current inventory of producers lacks specific information on the type of crops grown, how much is grown and where the produce is sold. The listing mainly contains the location of the farm, contact

information and a general description of the type of crops grown (for example, fruits and vegetables) and the operation's sampling history, including any past adverse results. This limited information makes it difficult for the Ministry of Agriculture to select appropriate producers for sample-testing.

The Ministry of Agriculture does have access to the registry of Ontario farms with gross sales of \$7,000 or more annually maintained by Agricornp, an agency of the Ministry. This registry contains information on the top three grossing crops grown. However, the Ministry of Agriculture was not using Agricornp's registry to update its inventory listing because, according to the Ministry, the crop information in the registry is updated at most every five years, with information self-reported by farmers. Agricornp does not validate this information.

RECOMMENDATION 5

To help the Ministry of Agriculture, Food and Rural Affairs develop a risk-based approach to sampling produce suppliers, we recommend that it:

- obtain access to the Agricornp database to provide it with additional produce information; and
- update its database of producer information that includes types of crops grown, production volumes, where the produce is sold and other data as available.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that there are opportunities to enhance the information we have about producers to improve our sampling program.

The Ministry's sampling program aims to detect microbiological and chemical contaminants in Ontario produce, honey and maple products. Through this program, the Ministry gathers valuable information that supports Ontario's agri-food industry in producing safe

food so that consumers can purchase Ontario products with confidence.

During the 2019/20 inspection cycle, the Ministry began compiling business information, including location, commodities, acreage grown and marketing volumes, into the business profiles for produce, honey and maple producers. The Ministry uses this information to identify potential trends, develop education and training tools, and inform future sampling plans.

The Ministry will continue to update its Ontario producer business profile inventory and make improvements by including any relevant data from the Farm Business Registration Database held by Agricorp in our 2020 sampling plan.

4.3 Fish and Seafood

There are about 170 fish- and seafood-processing plants in Ontario. CFIA licenses and inspects about 70 of these plants that export while the Ministry of Agriculture inspects the remaining 100, which sell only in Ontario. In 2018/19, the Ministry of Agriculture inspected facilities that processed about 5.1 tonnes of fish and seafood products. However, neither the Ministry of Agriculture, CFIA nor Statistics Canada had any data as to what percentage of the total processed fish and seafood products sold in Ontario came from the Ministry of Agriculture-inspected facilities.

4.3.1 Ministry of Agriculture Does not Inspect Fish Farms

There are 22 fish farms in Ontario producing trout, lake whitefish, tilapia, barramundi and shrimp. Of the 22 farms, 12 export their products outside Ontario. The remaining 10, producing rainbow trout, tilapia and barramundi for Ontario consumption, are licensed by the Ministry of Natural Resources and Forestry. The Ministry of Natural Resources and Forestry only conducts regular water quality and sediment monitoring on six cage aquaculture sites in Ontario to assess their impacts on the aqua-

tic environment. The Ministry of Agriculture does not inspect these farms.

We commissioned the University of Guelph to test 10 samples each of Ontario-grown and imported fish from retail stores in Ontario. The tests found levels of boron were higher in the imported samples and concentrations of thallium were higher in the Ontario fish. However, the test results overall showed that the heavy-metal levels found in the fish did not represent a health concern based on CFIA guidelines for chemical contaminants and toxins in fish and fish products.

We also tested 20 samples of fish sushi from restaurants in Ontario and found that these products contained generally acceptable microbial levels. However, one of the 20 sushi samples tested positive for *Listeria*.

4.3.2 No Licensing Requirement for Fish Processors

While the Ministry inspects the 100 fish-processing plants in the province, there is no licensing requirement for them. The province has not enacted the regulatory changes under the *Fish Inspection Act* (Act) that the Ministry of Agriculture had anticipated in 2014, after responsibility for administering the fish inspection program was transferred to the Ministry of Agriculture from the Ministry of Natural Resources and Forestry.

We noted that the current Act has only limited enforcement tools that the Ministry of Agriculture can use to compel fish processors to address infractions. Processors who do not sell outside the province, for example, require no licence to operate. This means the Ministry of Agriculture may not be able to close them if there are problems because there is no licence to revoke in the event that inspectors identify serious food-safety deficiencies.

In comparison, provincial meat-processing plants require a licence to operate, and the Ministry of Agriculture can suspend or revoke licences if significant food-safety infractions are found during inspections.

In addition, the Ministry of Agriculture has no authority to issue tickets, fines or compliance orders. Ministry of Agriculture inspectors only have the authority to detain and dispose of unsafe fish products.

In 2017, the Ministry of Agriculture drafted an updated regulation to make licensing mandatory for fish processors. Staff at fish processors would also be required to complete training in food handling, and develop plans for managing potential food recalls. However, this draft regulation had not yet been enacted at the time of our audit.

We noted that almost 20% of the Ministry of Agriculture's environmental testing done in 2018/19 at fish-processing plants showed high bacterial counts on food-contact surfaces and food-handling equipment. As shown in **Appendix 4**, the Ministry of Agriculture's fish sampling has one of the highest percentage of adverse microbial test results when compared to other sample-testing results for meat, dairy and produce. In addition, we reviewed 182 inspection reports on fish-processing plants between 2016/17 and 2018/19 found that two-thirds, or 588 of 896 infractions observed in 2018/19, were repeat offences that had also been observed in the 2016/17 and 2017/18 inspections. Had some of the repeat infractions noted below been observed at meat-processing plants, they would have led to the suspension of operations. The infractions included:

- no records showing that water and ice used in processing fish was from municipal water systems and therefore is safe to use for food preparation;
- no evidence that staff were properly trained on handling and segregating unacceptable fish;
- no evidence that minimum required temperatures were used in the smoking process; and
- ingredients used in fish products not being recorded on packaging materials.

In one of the cases we reviewed, the inspector noted in January 2018 that a processor was not using safe oxygen-permeable packaging for

refrigerated smoked fish. The Ministry of Agriculture did not have the authority to recall products so it referred the matter to the CFIA, the only agency with the authority to issue food recalls in Canada, which later issued a recall of this product after it found the inappropriate packaging could support the growth of botulism-causing bacteria.

RECOMMENDATION 6

To improve the food safety of fish processed in Ontario, we recommend that the Ministry of Agriculture, Food and Rural Affairs implement a licensing requirement for fish processors and allow inspectors to suspend or revoke licences if significant infractions are found during inspections.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that fish processors should be licensed to strengthen its compliance tools to improve food safety.

The oversight of Ontario fish processors requires co-ordination with government partners, including Public Health and the Canadian Food Inspection Agency, to have effective food safety oversight.

The Ministry has inspected non-federally licensed fish processors since 2014. Comprehensive annual audits (or more frequent audits for repeated non-compliance and to address complaints) assess a broad range of food safety risks and outline specific areas for improvement or corrective action. A number of compliance tools can be used in the event of non-compliance. The Ministry has the authority to detain and destroy non-compliant fish products, and when food safety risks are identified, the Ministry will refer these situations to Public Health, which has the authority to suspend operations or close food premises where required.

The Ministry is proposing a new modernized fish regulation within the *Food Safety and Quality Act* that would align with our regulatory oversight for other commodities. The provincial government recently introduced legislation that, if passed, will allow replacement of the *Fish Inspection Act* with the new regulation.

The regulation proposes the use of licensing for high-risk activities, inspection authorities for processing facilities and products, detention and seizure authorities for non-compliant fish products, compliance orders to require food safety improvements and the authority to suspend or revoke a licence to operate when necessary.

The Ministry will immediately work with our regulatory partners to strengthen protocols for responding to food safety issues in fish-processing facilities and enhance information-sharing to include outcomes and follow-up under the current legislative framework. We will implement improvements within 12 months.

4.3.3 Gap Exists between the Ministry of Agriculture and Public Health Regarding Inspections of “Dual” Fish-Processing Premises

We found that the authority of the Ministry of Agriculture and the Public Health Units differed with respect to “dual” premises—operators involved in both processing fish and selling it at retail, all from a single location. This difference can sometimes lead to such operators not being held accountable for failing to meet food safety standards.

The Ministry of Agriculture is responsible for inspecting the fish-processing areas of dual premises. Public Health Units also have the authority to inspect the premises, including the processing areas, but we observed that, reasonably, the Public Health Units only inspect retail areas in order to avoid duplicating the Ministry of Agriculture’s inspection scope.

As noted in **Section 4.3.2**, under the *Fish Inspection Act*, the Ministry of Agriculture does not have

the authority to shut down a fish-processing facility if an investigation uncovers significant deficiencies—it can only detain unsafe products. However, it can dispose of detained products after a court hearing.

On the other hand, Public Health Units can temporarily shut the entire facility down and dispose of products without a court hearing if they find significant deficiencies. We observed that one of the Public Health Units we visited inspected only the retail portion of a dual fish operation. We also noted that some of these dual fish operators with repeat infractions on the processing side continued to operate because the operator was found upon inspection to be in compliance with the requirements under the *Health Protection and Promotion Act*.

In May 2019, for example, the Ministry of Agriculture inspected a facility that processed fish in the back of the premises and had a retail counter at the front. The Ministry of Agriculture only had jurisdiction to inspect the processing operation at the back. The retail operation in the front was inspected by the Public Health Unit.

The Ministry of Agriculture inspection reports for this facility for the past three years noted a history of poor performance, including risk of cross-contamination between cooked and raw food, unacceptable operating condition of cooking utensils and equipment, and no evidence of regular cleaning and pest control.

We shadowed the Ministry of Agriculture’s May 2019 inspection of this facility and observed a general lack of hygiene, along with negligence toward cleanliness, food handling, storage and equipment maintenance. We also observed staff defrosting fish in hot water at room temperature, and using the same knives and gloves when handling cooked and raw fish.

Immediately after the inspection, the Ministry of Agriculture emailed and called the Public Health Unit to inform it of the deficiencies that had been observed and request that it conduct its own inspection, since the Public Health Unit has additional enforcement tools, such as the ability to suspend operations under its regulatory authority. The

Ministry also shared with Public Health a copy of the inspection report detailing all the infractions identified during the visit. The following day, Public Health inspected the facility—but only the retail area—and also observed sanitation problems for which it issued a ticket. However, the Public Health Unit gave the premises a green pass solely based on its inspection of the retail area.

Since 2015, we noted 13 other instances where the Ministry of Agriculture made similar referrals to Public Health Units about food safety concerns at seven food premises that also process fish on-site.

RECOMMENDATION 7

To appropriately address food safety concerns in dual facilities that both process fish and sell it at retail, we recommend that the Ministry of Agriculture, Food and Rural Affairs, in collaboration with Public Health Units, conduct joint inspections of these facilities.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees there are opportunities to conduct joint inspections with Public Health Units in dual facilities.

A current Memorandum of Understanding (MOU) between the Ministry and the Ministry of Health streamlines the inspection process of meat plants under the jurisdiction of both the Ministry and public health. The MOU clarifies responsibilities, and increases inspection efficiencies while minimizing duplication and providing guidelines for joint inspection, and also improves the communication and co-operation between both parties.

We will immediately engage with the Ministry of Health to renew the MOU and update it to include fish-processing facilities to improve our regulatory response to food-safety concerns and to confirm required processes for implementing

joint inspection activities. The Ministry will ensure its inspection staff are trained on any new protocols or procedures within the next 18 months.

4.4 Dairy

The Ministry of Agriculture oversees the registration and inspection of all 3,504 cow-milk farms and 268 goat-milk farms that supply raw milk in Ontario. Almost all of this raw milk goes to Ontario dairy-processing plants to be pasteurized to make fluid milk, cream, cheese, yogurt and other dairy products.

All dairy produced from the 48 Ministry of Agriculture-licensed dairy-processing plants is sold in Ontario. As of 2019, the Ministry estimated that these plants processed over 12 million litres of cow milk and over two million litres of goat milk.

In addition, the Ministry of Agriculture estimated that there are 75 sheep-milk producers and three water buffalo-milk farms in Ontario. However, no data is kept on the production volumes of sheep and water buffalo milk in Ontario. There are no requirements for sheep- and buffalo-milk producers to be registered with or inspected by the Ministry of Agriculture.

All dairy-processing plants in Ontario require a provincial licence to operate. In addition, dairy-processing plants in Ontario that export their products outside of the province also require a federal licence from the CFIA to operate. There are another 93 dairy-processing plants in Ontario licensed by both the Ministry of Agriculture and CFIA because they also export outside the province. However, no production data is collected by the Ministry of Agriculture, Dairy Farmers of Ontario, Ontario Dairy Council or the Canadian Dairy Commission to determine what percentage of dairy products processed in these dually licensed dairy plants are sold in Ontario.

4.4.1 Raw Goat Milk Sampled Has High Bacterial Count

As seen in **Appendix 4**, the Ministry of Agriculture’s raw goat-milk test results between the 2014/15 and 2018/19 fiscal years indicated a significantly larger percentage of samples tested with high bacterial count or presence of inhibitors (antibiotics and other chemicals) compared to cow milk.

When we reviewed Ministry of Agriculture inspections in the past five years, we noted that about 18%, or 46, of the goat-milk producers repeatedly had the same infractions for the last three annual inspections. Infractions included issues surrounding cleanliness and sanitation of the cooling and milking equipment, milking area and milk house.

The Ministry of Agriculture has the authority to issue warning letters to dairy producers, dispose of raw milk and order production shutdowns. However, we found that the Ministry had not developed clear policies on which compliance tools should be used, and when, for goat-milk producers with frequent infractions. The Ministry of Agriculture’s goat-milk producer inspection program also did not have policies that prioritize the significance of infractions or set due dates for correcting infractions.

For example, in one case we reviewed, a goat-milk producer repeatedly did not receive a pass rating in each of the past five annual inspections and the same infractions related to the cleanliness of the milking equipment were noted during these inspections. This producer received the list of deficiencies from the Ministry of Agriculture subsequent to the annual inspections, and took an average of 121 days to correct them. However, the Ministry never issued any warning letters with respect to production shutdowns in light of the producer’s repeated history of non-compliance.

RECOMMENDATION 8

To improve the safety of goat-milk products in Ontario, we recommend that the Ministry of Agriculture, Food and Rural Affairs:

- develop policies that prioritize the significance of infractions and establish deadlines for correcting infractions; and
- develop policies regarding which compliance tools should be used, and when, for goat-milk producers with frequent infractions.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees there are opportunities to improve our compliance policies to provide clearer and more consistent direction to inspectors.

The Ministry conducts an annual compliance inspection of all goat-milk farms in the province. When corrective action is required, the Ministry ensures the producer adheres to a corrective action plan and conducts follow-up inspections. As part of each pick-up, the Ministry tests milk samples, and assesses milk quality, the condition of the animals and the cleanliness of the facility to determine whether the premises meet the regulated standard. If the premises do not meet the standard, the milk will not enter the food system and no further milk will be collected until standards are met.

The Ministry has been improving its dairy goat compliance policies as part of a broader review of all inspection programs. This review will allow us to immediately place additional inspection emphasis on frequent or repeated non-compliance.

Within the next 12 months, the Ministry will prioritize the significance of infractions and establish deadlines for goat-milk producers to take corrective action.

Within 18 months, these enhancements will be included in written compliance policies, and training will be provided to inspection staff.

4.4.2 Sheep and Buffalo Milk Production Unregulated in Ontario

The Ontario *Milk Act* specifically defines “milk” as milk from cows or goats. As a result, the Act regulates only milk and milk products from cows and goats. It does not regulate the production of milk from other species such as sheep and water buffalo.

There are an estimated 75 sheep-milk producers and three water-buffalo-milk farms in Ontario.

These producers, unlike those producing cow and goat milk, do not have to comply with regulations under the *Milk Act* related to quality, sanitation of farms or testing for bacteria and inhibitors such as antibiotics and other chemicals.

While Public Health Units have the authority to inspect milk from sheep and water-buffalo in food premises, Public Health Inspectors do not inspect the farms or sample test raw sheep and water-buffalo milk.

In comparison, all animals kept for the purpose of milking are regulated in other Canadian provinces such as Manitoba and Alberta. Manitoba regulates the production, transportation, processing and distribution of sheep milk while Alberta’s regulations also include requirements for licensing, inspections and product sampling.

The Ministry of Agriculture has been asked by sheep-milk producers to visit their farms and provide input and note issues such as poor sanitation of premises and equipment, and inappropriate milk-handling practices. In one such visit, the Ministry of Agriculture discovered hair and dirt in sheep milk used to make cheese. In another visit, in 2014, the Ministry of Agriculture noted a major cleaning failure in one section of the milk pipeline.

In a 2006 survey of Ontario sheep-milk producers by the Ministry of Agriculture, respondents indicated that they were interested in government doing more to assist in the development of the dairy sheep industry by providing information and testing milk.

Subsequently, in 2011, the Ministry of Agriculture conducted a study to determine the quality

and safety of raw sheep milk produced in Ontario. The study found that most producers needed to improve milk-handling procedures and equipment sanitation, with over 50% of samples exceeding the dairy industry’s suggested guidelines for bacteria in cow milk.

RECOMMENDATION 9

To improve the safety of all milk products in Ontario, we recommend that the Ministry of Agriculture, Food and Rural Affairs include inspection oversight of milk from species such as sheep and water buffalo in its dairy food-safety program.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that there are opportunities to improve food-safety oversight for dairy products not currently covered by the *Milk Act*.

Public Health provides regulatory oversight and inspection of the processing of milk products from species such as sheep and water buffalo. The Ministry supports our public health partners in their food-safety oversight of sheep and water buffalo milk processors by providing technical and scientific expertise related to the safe production of milk products.

The Ministry will engage with industry and our regulatory partners to propose options to improve oversight for milk from all dairy species.

4.4.3 Incomplete Oversight of Dairy Farmers of Ontario

In 1998, the Ministry of Agriculture signed an initial agreement with Dairy Farmers of Ontario (DFO) to delegate specific provisions of the *Milk Act* regarding cow milk to DFO. The organization became responsible for inspecting milk producers’ premises, overseeing grading of milk, collecting

samples to test for bacteria, and overseeing transport of milk to dairy-processing plants.

The Ministry of Agriculture is responsible for overseeing DFO's administration of the Raw Cow Milk Quality Program. A 2010 agreement between the Ministry of Agriculture and DFO, which did not replace the 1998 agreement, was added to outline the DFO's new responsibilities for sampling and testing of raw cow milk.

However, the Ministry of Agriculture does not receive the information that it needs from DFO to demonstrate sufficient oversight of DFO.

We found that the reports the Ministry of Agriculture received from DFO did not contain detailed information but, instead, high-level summaries on those producers who had consistently failed inspections, received high bacteria-count results on sample testing, or had to be suspended by DFO for unsanitary conditions.

The Ministry of Agriculture cannot, using just the reports, identify non-compliant milk producers who repeatedly committed the same infractions, those whose sample tests exceeded regulatory bacteria limits and, most importantly, what actions DFO took to address repeated non-compliance by producers.

According to the 2010 agreement, DFO is required to provide the Ministry of Agriculture with monthly reports showing the total number of milk samples collected, type of sample testing performed and an explanation for any shortfalls between the required and actual sampling. However, it does not provide these reports.

It is also unclear in the agreements with the DFO what other information the Ministry of Agriculture has access to. In 2018, for example, the Ministry requested data on oversight of milk transporters since the Ministry is responsible for the certification of transporters. Both the DFO and the Ministry of Agriculture had to engage their legal teams to determine just what information the DFO could share with the Ministry under this agreement, especially when it comes to information about individual producers. The DFO ultimately

provided the Ministry with the information that it had requested.

We reviewed inspection reports, sample-testing results and producer shutdown data for the past five years that we requested from the DFO, and noted repeat offenders. Thirty-one cow-milk producers, for example, consistently received inspection ratings of "fail." We reviewed the inspection data of these 31 producers and noted problems with cleanliness and maintenance of milk houses, animal housing, and milking and cooling equipment. We also found 20 producers were repeatedly penalized at least four times in the last five years for having sample-testing results with high bacteria counts. The Ministry of Agriculture was unaware of these repeat offenders and had not followed up with the DFO on actions taken against them.

RECOMMENDATION 10

To improve oversight of Ontario cow-milk producers, we recommend the Ministry of Agriculture, Food and Rural Affairs (Ministry) to work with the Dairy Farmers of Ontario (DFO) to update their 2010 agreement to clarify the Ministry's right of access to all information it needs given that the province in its own right has the authority to delegate and retract authority from the DFO.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees we can improve oversight of the Dairy Farmers of Ontario (DFO) to ensure their effective oversight of raw cow milk safety.

The DFO has a comprehensive compliance program as part of its responsibilities for oversight of raw milk safety. This includes on-farm inspections to verify that the premises meet regulatory requirements. The DFO performs testing, grading and sampling to assess the quality of cow milk in relation to regulatory

requirements. Non-compliance is addressed through a suite of comprehensive compliance tools, including disposing of non-compliant milk, administrative penalties and issuing orders requiring corrective actions.

The Ministry will immediately work with the DFO to update the 2010 Administrative Agreement and clarify our right of access to information. More information will enhance the Ministry's ability to verify that the DFO is meeting the requirements of the Agreement. The information will include, but may not be limited to, inspection results, response to non-compliance and the approach taken to address incidents of repeat non-compliance. A new draft agreement will be completed within 18 months.

To align with the new agreement, the Ministry will develop training for staff to support effective oversight of the DFO.

4.5 Non-Chicken Eggs Not Graded or Inspected For Quality Assurance

The grading of all chicken eggs in Canada falls under the jurisdiction of the federal CFIA. However, we are concerned that non-chicken eggs are not subject to any grading or inspection process in Canada.

The CFIA's grading requirements for chicken eggs are intended to protect the public from certain risk factors involving quality, weight, cleanliness and shell construction that affect safety, quality and wholesomeness of eggs. However, there are no similar CFIA regulated grading requirements in Ontario for non-chicken eggs such as those from quails or ducks.

Like Canada, the UK does not regulate non-chicken eggs. We noted that in 2010, the UK had a *Salmonella* outbreak of 66 cases, all relating to duck eggs, that resulted in one death and two hospitalizations.

In the US, eggs from domesticated chickens, turkeys, ducks, geese and guinea fowl are all

regulated, and inspections of hatcheries and plants are mandatory.

While there are no regulated grading requirements for non-chicken eggs, Public Health Inspectors are required to check during their inspections of grocery stores and other food premises whether non-chicken eggs are clean, free of visible cracks and stored at 4 degrees Celsius or lower. However, Public Health Inspectors would not provide the same rigorous degree of inspection as a federally registered grading station for chicken eggs.

RECOMMENDATION 11

To improve the food safety of non-chicken eggs, we recommend that the Ministry of Agriculture, Food and Rural Affairs, in collaboration with the Canadian Food Inspection Agency, assess the risks and benefits of extending the chicken-egg inspection and grading requirements to non-chicken eggs.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs will immediately engage with the Canadian Food Inspection Agency to determine if there is an opportunity to collaborate on assessing the risks and benefits of adding non-chicken eggs to federal grading requirements and offer any information, including insights from our public health partners, on food safety risks associated with non-chicken eggs.

4.6 Organic Foods

According to the latest 2017 Canadian Organic Market Report by the Canada Organic Trade Association, the total organic market in Canada is estimated to be \$5.4 billion, up from \$3.5 billion in 2012. The Canada Organic Trade Association is an association for organic agriculture and products in Canada and its members include growers, shippers, processors, certifiers, farmers' associations,

distributors, importers, exporters, retailers and other organic stakeholders.

The Canada Organic Trade Association also reported that 66% of Canadian shoppers are purchasing organic items weekly. Eighty percent of these shoppers make their organic purchases at regular grocery stores. The study also reported that less than half, 48%, of Canadians rate the Canada Organic logo as trustworthy.

4.6.1 No Certification Required for Organic Foods Produced and Sold Only in Ontario

Food produced and sold only in Ontario and claiming to be organic does not have to be certified to the federal Canadian Organic Standards; no provincial law requires such certification. Certification to the federal Canadian Organic Standards is required only for organic foods sold across provincial or international borders.

In comparison, Quebec, Manitoba, Alberta, British Columbia, New Brunswick and Nova Scotia all have laws requiring that organic food be certified to the Canadian Organic Standards even when it is sold only within their province.

Due to the lack of provincial regulations on organic food, businesses that operate solely within Ontario are allowed to market their products as “organic” even if they are not certified. Based on our research, there are at least 34 organic producers in Ontario that are not certified to the Canadian Organic Standards but are advertising their products as “organic.” The majority of these organic growers sell their products through farmers’ markets. According to the Canada Organic Trade Association, 23% of organic shoppers, in addition to making purchases at regular grocery stores, also make their organic purchases through farmer-direct channels such as farmers’ markets.

4.6.2 Pesticide Testing Not Required for Organic Certification of Produce

We found that the organic certification process does not require testing of fruits and vegetables for pesticide residues.

Under the Canadian Organic Standards, producers of organic fruits and vegetables are not permitted to use synthetic pesticides or fertilizers on their crops, and are encouraged, instead, to use alternative pest-control methods such as crop rotation, mulching, traps and animal grazing. They may also use biopesticides, which can be derived from natural substances like plants, bacteria or minerals, but only after field monitoring indicates a need and as a last resort. Organic producers may also use fertilizer composed of organic and non-organic manure, and compost from plant and animal matter.

However, according to the CFIA, organic produce may still be exposed to pesticide residues from airborne drifts and water runoffs originating at neighbouring farms, or from cross-contamination during transport or packaging. Such produce is still labelled organic as long as the farm from which it was harvested complies with the Canadian Organic Standards.

As part of the Ministry of Agriculture’s routine food-safety monitoring programs, Ontario organic and conventionally grown produce is tested for pesticide residues against the same Health Canada maximum residue limits. There are no maximum pesticide residue limits that apply specifically to organic produce.

Organic farms in Canada certified to the Canadian Organic Standards are inspected by one of the CFIA-accredited organic certification bodies once a year to ensure ongoing compliance with organic standards. However, organic certification bodies do not, and are not required to, perform routine sample-testing of organic produce for pesticide residue.

We commissioned the University of Guelph to test 20 samples each of Ontario-grown and imported organic produce, including grapes,

peaches, lettuce and spinach. Of the 20 samples of Ontario-grown organic produce, pesticide residues were found in 14. Of the 20 samples of imported produce, pesticide residues were detected in 15. However, the pesticide residue levels were low, and below Health Canada's allowable limit.

4.6.3 No Provincial or National Certification for Other Food Claims

We found that there was no federal or provincial government certification in place for some of the more common methods of production claims such as “free run,” “free range,” and “grass fed.” **Appendix 10** lists common food claims made on labels of food products.

Under the federal *Safe Food for Canadians Act* and the *Food and Drugs Act*, no food can be advertised in a way that is false, misleading or deceptive. The CFIA investigates food-packaging claims to confirm they are consistent with the public's general understanding of the terms in question.

According to the Chicken Farmers of Canada, “free run” (or “cage free”) chickens are kept outside cages in open-concept barns. Chickens are allowed to run free indoors and, ideally, have access to nests and roosting spaces.

We found that CFIA does not regulate the use of the term “free run” eggs. Therefore, there is no specific standard as to the maximum density of the barns. As long as hens are not kept in cages in an open-concept barn, eggs produced by these hens are considered “free run.” Depending on practices of individual farms, some “free run” eggs come from hens that have more space in which to run than other hens raised in a more crowded barn.

According to the Chicken Farmers of Canada, “free range” refers to chickens having access to the outdoors. However, since CFIA does not regulate the use of the term “free range,” there are no specific requirements, such as the length of time spent outdoors, that qualifies for the use of the claim “free range.”

In contrast, BC Egg, that province's egg marketing board, requires that all free-range eggs must be from chickens that access the outdoors for at least 120 days a year, with each day outdoors lasting at least six hours. Free-range egg farmers in BC are also required to keep a record of the number of days and hours that chickens spend outdoors. Ontario has no comparable standards or certification processes for free-range and free-run eggs. So whether it's 10 minutes per week or 10 hours per day, as long as the livestock have access to the outdoors, the requirement is considered met. According to the Chicken Farmers of Canada, “free-range” practices vary from farm to farm.

“Grass-fed” meat suggests there are requirements for the minimum proportion of grass in an animal's diet. However, there are currently no provincial or national standards for grass-fed claims in Canada.

Various Ontario entities, such as the DFO and Pro-Cert, one of the CFIA-accredited organic certification bodies, have developed individual grass-fed standards, but these vary. For example, Pro-Cert states that grass and other roughage should be the sole diet of grass-fed livestock, whereas DFO requires only 75% of a cow's dry-food diet be grass or forage.

In comparison, the US Department of Agriculture worked directly with the American Grassfed Association (AGA) to develop and implement a national certification program and standards for grass-fed animal producers. AGA's standards require that animals are fed only grass and forage from weaning until harvest. In addition, AGA standards require that animals are raised on pasture without confinement, are never treated with antibiotics or added growth hormones, and are born and raised on American farms.

4.6.4 No Verification of Food Labelling Relating to Health Claims

“Natural” does not mean “organic” in food labelling—CFIA defines the term to mean the product

contains no added vitamins, nutrients, artificial flavours or other food additives. In addition, it cannot have been significantly processed (except for the removal of water) and may only be subject to such less invasive procedures as freezing and cutting, for example. Since there are currently no certification systems in place for the term “natural,” producers of natural products are not subject to any independent inspections or product-testing to ensure that no preservatives, artificial flavours or other food additives are used in the production process.

CFIA defines “raised without antibiotics” and “raised without hormones” to mean that neither the animal nor its mother was raised with either substance. In Canada, growth hormones are allowed only for beef cattle, and banned from use in all other animals. Since meat contains naturally occurring hormones, there is currently no lab test available to test for “added hormones” to verify the “raised without hormones” claim.

In Ontario-licensed slaughterhouses, the Ministry of Agriculture selects a statistically representative number of meat samples to test for chemical residues, including antibiotics. In addition, if an animal is suspected of having been subjected to antibiotics (e.g., inspectors observe needle marks or other abnormalities) they are also tested for residues.

Testing of both organic and conventional meat is done to the same Ministry of Agriculture standards because checking for compliance to organic standards is the responsibility of the CFIA-approved organic certification bodies. If residues above the maximum limits established by Health Canada are detected, the meat will be discarded. If the animal underwent a sufficiently long withdrawal period after antibiotics were injected (depending on the substance), there will be no traces of antibiotic remaining in the meat to be detected on a residue test, so a negative drug residue test does not necessarily mean no antibiotics were used on the animal. There is currently no lab test available to determine if antibiotics have ever been used on animals to verify the “raised without antibiotics” claim.

RECOMMENDATION 12

To promote consistent standards for organic foods, we recommend that the Ministry of Agriculture, Food and Rural Affairs collaborate with the Canadian Food Inspection Agency to:

- consider having organic food produced and consumed in Ontario certified to the federal Canadian Organic Standards;
- develop more specific requirements for farming of livestock, such as maximum density of barns for “free run” egg-laying chickens and minimum length of time spent outdoors for “free range” animals;
- require sample monitoring and testing for pesticide residues in produce as part of an organic certification process;
- develop a system of certification for food claims such as “free run,” “free range,” and “grass fed” to ensure consistency in standards; and
- develop public-education materials on food labelling and marketing claims.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that accurate food claims on product labels allow consumers to make informed choices about the food they consume. Food is produced safely under many different production regimes, including organic and conventional systems.

The Canadian Food Inspection Agency (CFIA) is responsible for monitoring and enforcing organic product regulations across the country. Organic products crossing provincial/territorial or Canadian borders, or those using the Canadian Certified Organic logo, must meet Canadian Organic Standards. In Ontario, many of the large organic producers are certified to allow for access to trade. Providing false or misleading information on any food label is an offence under federal

food safety laws, and the Ministry currently refers incidents of suspected non-compliant food claims to the CFIA for action.

Ontario has developed a Foodland Ontario Organic brand to support Ontario producers, processors and retailers to connect consumers to local organic food. Products must meet the Foodland Ontario standards and be certified to the Canadian Organic Standard to use the Foodland Ontario Organic branding.

The Ministry will immediately engage with the CFIA to identify opportunities to clarify federal requirements for food claims such as those included in **Appendix 10** of the report.

The Ministry will immediately work with the CFIA and industry partners to improve distribution of existing guidance on food labelling and marketing claims.

Within the next six months, the Ministry will re-engage with industry and regulatory partners through the Food Integrity Initiative and other opportunities to promote awareness of food integrity issues and pursue improvements to the reliability of food claims.

4.7 Federal Labelling Requirements Not Enforced in Provincial Food-Processing Plants

We found a lack of co-ordination between the Ministry of Agriculture and the CFIA that created a gap in the inspection and enforcement of federal labelling requirements in Ontario food-processing plants.

The CFIA does not routinely inspect plants that process food for consumption solely within Ontario, even though it has the authority to do so, because these plants are under the jurisdiction of the Ministry of Agriculture. However, Ministry of Agriculture inspectors do not check for federal food-labelling requirements (for example, place of origin, nutritional value, etc.) in provincial plants, except for allergens. For example, while the Ministry of Agriculture's *Meat Inspector Policy and Procedures Manual* included guidance specifically

on allergens, we noted that the labelling section of the manual offers no guidance on inspecting for other food-labelling requirements.

One Ontario plant, for example, previously used cooked chicken in its microwavable product but then changed over to raw chicken—without updating the cooking instructions on labels to reflect that the product contained uncooked chicken. This was discovered after a complaint was received.

Raw poultry often contains harmful bacteria such as *Salmonella* and *Listeria*, which can only be killed by cooking at the proper temperature. Although the Ministry of Agriculture inspected the plant three times after it had changed over to raw chicken, inspectors did not notice the mislabelling.

After CFIA received the complaint, CFIA and the Ministry of Agriculture jointly investigated and found improper labelling for seven other products, and detained 2,000 packages on-site. These products also had undeclared allergens. Subsequently, the CFIA issued a recall for an estimated 10,000 packages of these mislabelled products.

In addition, between 2014 and 2018, over half of food recalls (238 of 441) issued by the CFIA were due to undeclared allergens on food labels. Mislabelled products with undeclared allergens may have life-threatening consequences for some consumers with severe food allergies.

In 2018, for example, the CFIA received a complaint about illness from improperly declared eggs in frozen dumplings processed and packaged in a provincial meat plant. About 58,000 bags of the dumplings were subsequently recalled. The plant had been inspected by the Ministry of Agriculture 17 times during the year of the complaint and recall, but the undeclared allergens had not been noted in any of the 17 inspections.

RECOMMENDATION 13

To help reduce gaps and overlaps in inspections of food producers by the Ontario Ministry of Agriculture, Food and Rural Affairs (Ministry)

and the federal Canadian Food Inspection Agency (CFIA), we recommend that the Ministry collaborate with the CFIA to:

- update the Ministry's *Meat Inspection Policy and Procedure Manual* to include guidance on the inspection of federal and provincial labelling requirements; and
- ensure the Ministry checks for allergens and labelling more thoroughly during inspections.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (the Ministry) agrees that reducing gaps and overlaps in the inspection of food producers will improve the food safety system.

The Ministry has procedures in place to assess recipes, including a review of ingredient lists in meat products produced in provincially licensed meat plants, and validate that meat products are labelled accurately.

The Ministry has already started to update our policy and procedure manuals to provide clearer direction for inspection staff on assessing compliance with federal labeling requirements for meat products from the provincial system, including those for allergens. We will complete our update within 12 months and validate the updated procedures with the Canadian Food Inspection Agency (CFIA) to ensure we have reduced gaps and overlaps.

The Ministry will train inspection staff on any updated procedures and protocols and implement updates within 18 months.

The Ministry will report on the effectiveness of these procedures within 24 months. The Ministry will then engage with the CFIA to enhance existing protocols for follow-up when corrective action is required under federal legislation.

4.8 Lack of Public Disclosure of the Ministry of Agriculture Inspection Results

We found that the inspection results of producers and processors were not disclosed on the Ministry of Agriculture's public website. This would give institutional buyers such as retail stores and wholesalers food-safety performance information about producers and processors that they could take into account in making purchasing decisions.

For example, the Ministry of Agriculture does not publicly disclose:

- names of farms and types of produce that tested positive for pesticides and bacteria in excess of Health Canada's allowable limits;
- inspection results of slaughterhouses, farms and processing plants (see **Appendix 3**); and
- microbial and chemical testing results of food samples and environmental testing results of processing facilities (see **Appendix 4**).

In comparison, Saskatchewan and Newfoundland and Labrador publicly report on the inspection results of their slaughterhouses. British Columbia also publicly posts fish-processing plant audit inspection results.

We also noted that the inspection results of food premises, whether pass or fail, are disclosed on the Public Health Units' websites, along with details of infractions or deficiencies found during the inspection.

A May 2017 study by the US Department of Agriculture found that publicly disclosing details about chicken-slaughtering plants with poor performance on *Salmonella* tests significantly decreased levels of *Salmonella* in subsequent tests because the market demanded better performance from the slaughterhouses.

RECOMMENDATION 14

To improve transparency about food safety, we recommend that the Ministry of Agriculture, Food and Rural Affairs publicly disclose

the results of its food-safety inspections and sample testing.

MINISTRY OF AGRICULTURE RESPONSE

The Ministry of Agriculture, Food and Rural Affairs (Ministry) agrees that there are opportunities to improve transparency of food-safety compliance in Ontario.

The Ministry currently posts the names of food-related businesses that hold a licence with the Ministry. As well, the Ministry follows a disclosure protocol used by other provincial regulatory bodies to make public convictions and penalties for offences under our mandate.

To further improve transparency, the Ministry will include notice of any changes to licences, such as a revocation or a suspension, within six months.

To further enhance our public disclosure of compliance information, the Ministry will work with industry and government partners over the next 12 to 18 months to review best practices used by other regulators and identify potential enhancements to improve transparency of our food safety compliance actions.

We will immediately engage with the Ministry of Health and Public Health Ontario to work towards a disclosure system that uses consistent principles across the provincial food-safety system.

tions about the opening of new food premises.

The *Health Protection and Promotion Act* requires all food premises operators to notify their Public Health Unit when opening new premises, but some did not follow this requirement.

In addition to receiving notification from new food premises operators, the five Public Health Units we visited relied on their working relationships with, for example, issuers of municipal business licences and provincial liquor licences to maintain up-to-date lists of food premises. However, there are no agreements in place that outline the responsibilities of the municipalities and the Public Health Units. In addition, not all municipalities have the same licensing requirements for businesses. Public Health Units also conduct ongoing surveillance by monitoring social media, business directories and complaints. While Public Health Units advised us that these activities captured a majority of new food premises, there was no guarantee that they captured all of them.

We noted in our review of data from 2016 to 2018 at the five Public Health Units we visited that there had been 253 complaints relating to food premises that were not on the Public Health Units' lists at the time of the complaints. This means the Public Health Units had never inspected these premises because they did not know of their existence until they received complaints about them. We also noted that in 15%, or 39, of these complaints, customers suspected that they got sick from food consumed at the food premises.

5.0 Detailed Audit Observations: Inspections of Food Premises

5.1 Inventory of Food Premises

5.1.1 List of Food Premises Not Up to Date

The five Public Health Units we visited did not have a process in place to receive regular notifica-

5.1.2 Inconsistent Monitoring and Inspection of Online and Home-Based Food Businesses

The recent growth of online and home-based food businesses has made it difficult for Public Health Units to keep track of and inspect these food premises.

According to a 2018 amendment to the *Health Protection and Promotion Act*, a food premises is “a room where food is prepared, processed, packaged, served,

transported, manufactured, handled, sold, offered for sale, but does not include a room actually used for dwelling in a private residence.” The amendment provided clarity that the definition of food premises includes home-based businesses. The Ministry of Health has also clarified with the Public Health Units that a Public Health Inspector has the legal authority to inspect a private home where there is an enterprise that fits the definition of a food premises.

However, we noted the processes for tracking and inspecting home-based and online food businesses varied among the five Public Health Units we visited. Only one was proactively reaching out to home-based and online food businesses to add them to its inventory and conducting inspections. Three inspected home-based and online food businesses only when they became aware of them. And the fifth Public Health Unit provided food-safety education materials to home-based business owners but would not enter premises to complete an inspection because this Public Health Unit’s legal opinion was that inspectors do not have the legal authority to enter a room used as a dwelling without the consent of the occupant.

Our research of online food businesses found 74 online and home-based businesses that were not part of the Public Health Units’ food premises inventory. For example, one online food business, which provided customers with an online choice of meal options to order in advance, was linked to four confirmed cases of salmonellosis in 2016. The Public Health Unit was unable to inspect this food premises prior to the outbreak due to a lack of information about the operator, such as the location of the food preparation site and the operator’s contact information.

RECOMMENDATION 15

To provide every Public Health Unit with access to current lists of food premises in its jurisdiction, we recommend that the Ministry of Health collaborate with the Ministry of Municipal Affairs and Housing and municipalities to put

in place agreements to have regular access to a current inventory of food premises.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the importance of Ontario’s 35 Public Health Units having access to a comprehensive inventory of food premises within their jurisdictions. The Ministry recognizes that municipalities do not have the same bylaws in place for the licensing of businesses and, as a result, some food premises may not be captured. As well, the Ministry notes that the Food Safety Protocol, 2018, requires Public Health Units to have a procedure in place to access the contact information and locations for all food premises and a current inventory of all food premises within their jurisdictions.

Accordingly, the Ministry will collaborate with the Ministry of Municipal Affairs and Housing and municipalities on the development of appropriate protocols to enhance inventories of food premises.

The Ministry will also leverage the existing training delivered to Public Health Units to provide further guidance for the inspection of home-based businesses.

5.2 Public Health Units’ Inspection and Enforcement Practices

5.2.1 Public Health Units Inspecting Average of Fewer than 20% of Special Events

We found that, unlike with fixed food premises such as restaurants, there are currently no minimum provincial requirements for the frequency of inspections of temporary food premises at special events, such as summer fairs and festivals. While not all special events require inspections, we found that only about 12% of all special events in 2018 within the jurisdictions of the five Public Health Units we visited were inspected based on their assessed risk. Only about 15% were inspected based on assessed risk in 2017.

While the vast majority of foodborne illnesses are associated with food safety in restaurants and residential homes, special events present unique risks. The US Centers for Disease Control and Prevention states that special events can be high risk because the usual safety controls that a kitchen provides, such as monitoring of food temperatures and washing facilities, may not be available when cooking and dining at outdoor special events. In 2013, for example, 146 people got sick after eating the cronut burger contaminated with *Staphylococcus aureus* toxin at the Canadian National Exhibition in Toronto. Sample tests run by the Public Health Ontario Laboratory after the outbreak isolated the bacon jam topping on the burger as the source of the pathogen. The Public Health Unit was not able to isolate the identical pathogen from affected patients and the facility where the jam was prepared. However, the Public Health Unit found food-handling and storage issues both at the CNE food premises and at the offsite jam-preparation facility.

More recently, our review of foodborne-illness records at the five Public Health Units we visited found four separate individual cases of confirmed foodborne illnesses between 2016 and 2018 where the Public Health Unit recorded food consumed at a special event as the most likely source of the pathogen causing the illness.

Inspections of special events can be difficult because many are held on weekends, when Public Health Units lack the required staffing to inspect them all. Of the Public Health Units we visited, only one had a formal agreement in place where inspectors are scheduled to work weekends as part of their regular work week, permitting the inspection of premises, including special events, outside traditional core business hours.

Also, while the Ministry of Health requires Public Health Units to establish and implement procedures to monitor or inspect temporary food premises, including those operating at special events, it has not yet developed a standard template that Public Health Units can use to assess the risk of special events. Although the Ministry of Health

provides direction to Public Health Units on factors that need to be considered at a minimum, Public Health Units have developed their own forms and protocols to assess the risk of a special event to determine whether it should be inspected.

As a result, we noted significant differences in the inspection rates of special events among the Public Health Units we visited. In 2018, for example, one Public Health Unit inspected about 35% of all special events in its jurisdiction after completing the risk assessments according to its own protocols, while another inspected only about 3% based on its risk assessments. Similarly, in 2017, we found one Public Health Unit inspected about 41% of all special events while another inspected only about 4%, again using their own forms and protocols to assess the risk of all special events and inspecting only those that were assessed to be of high risk. **Figure 6** summarizes the number of special events in 2017 and 2018 for each of the five Public Health Units we visited and the number of special events that were inspected by each of them.

RECOMMENDATION 16

To improve the consistency of inspections for special events among Public Health Units, we recommend that the Ministry of Health establish clear protocols and minimum standards for inspection requirements at special events based on a consistent risk assessment, which includes relevant factors such as event size, expected attendance and types of food preparation.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the recommendation to develop minimum inspection requirements for special events. Currently, the Operational Approaches for Food Safety Guideline under the Ontario Public Health Standards outline evidence-informed factors (for example, event size and type of food being served) to enable the risk assessment of special events and determine appropriate public health action

(that is, whether operator education or further inspection is warranted).

Municipalities will need to establish parameters at the local level to further define and account for different types of special events, which in turn would enable appropriate allocation of public health resources and action. This would also ensure that public special events are inspected and assessed appropriately based on the risk to public health and safety. The Ministry of Health, in consultation with the Public Health Unit and municipalities, will further clarify the role of Public Health Units with respect to all special events.

5.2.2 Inconsistencies in Inspections

The Ministry of Health's Food Safety Protocol under the Ontario Public Health Standards requires that Public Health Units implement an inspection process for food premises. This includes assessing safe food-handling practices, inspecting for compliance with regulations and consulting with food premises operators about food-safety practices. The intent of this protocol is to minimize food-safety hazards and

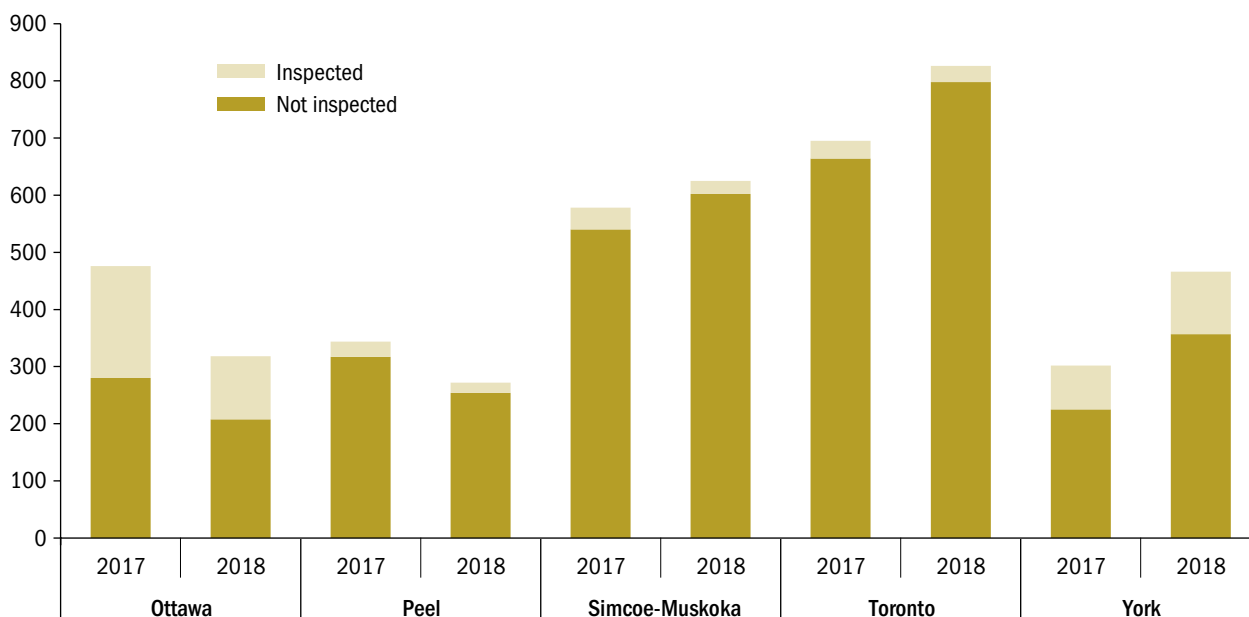
promote on-site food-safety education and training. The protocol does not prescribe the content of the inspection reports, the details that an inspector needs to include in the inspection report and what actions the Public Health Unit will take when there is non-compliance.

Public Health Units have developed inspection forms and protocols based on the requirements under the Food Safety Standard and Food Safety Protocol. While these forms and protocols reflect the requirements of the regulation, we noted that they were not standardized across the province. For example:

- The process for completing annual risk assessments.** Public Health Units are required to complete an annual on-site risk assessment for each of the food premises in their region to determine the frequency of inspections. Higher-risk premises are inspected more frequently than lower-risk ones, as explained in **Figure 5**. While four of the five Public Health Units we visited complete the risk assessment physically at the premises while conducting the first compliance inspection of the year, one does not

Figure 6: Inspections of Special Events by Selected Public Health Units, 2017 and 2018

Source of data: Ministry of Health and Public Health Units



follow the Ministry of Health's annual risk assessment protocol, instead completing the risk assessment in the Public Health Unit's own offices before the inspector has even visited the premises. Risk assessments made without an on-site visit means inspectors cannot learn if any risk factors have changed, such as the addition of high-risk cooking processes. This could lead to high-risk food premises incorrectly assessed as moderate or low-risk.

- **The level of detail recorded in terms of infractions and observations during the inspection.** Public Health Units have policies and procedures in place to ensure details recorded on infractions and observations during an inspection are consistent within each Public Health Unit. Despite the policies and procedures each Public Health Unit have in place, there were still inconsistencies across inspection reports that we reviewed at the five Public Health Units we visited. This also made it difficult for inspectors to get a clear and complete history of a food premises during investigations of complaints of foodborne illnesses.
- **Enforcement actions taken by Public Health Units for not having a certified food handler present.** The 2018 amendments to the Ontario Food Premises Regulation require that every operator of a food premises must have at least one certified food handler or supervisor on the premises who has completed food-handler training during every hour that the premises is operating. Public Health Inspectors can issue tickets to operators in non-compliance. However, at the completion of our fieldwork, we found that two of the five Public Health Units we visited were not enforcing this new requirement under the regulation. One was only educating food operators about the new requirement and monitoring progress, while the other gave operators a 12-month compliance period

and only began enforcing the new regulation subsequent to our fieldwork in July 2019. The three other Public Health Units we visited were already issuing tickets for not having at least one certified food handler on-site or having expired food-handler certification.

In addition, while the Ontario Public Health Standards require Public Health Units to have quality improvement plans in place for their programs and services, there is no requirement to have a formal quality assurance process in place. The quality assurance departments at the five Public Health Units that we visited did not have formal consistent procedures and protocols in place to audit the quality of work done by their inspectors. Only one of the five Public Health Units completed an audit of inspectors in 2018, while another only audited new inspectors and summer students to ensure that they were conducting field inspections properly once their in-house training was completed. Two of the five had completed reports to identify input errors from inspectors in their database to improve inspection accuracy.

RECOMMENDATION 17

To ensure consistency across Ontario's 35 Public Health Units, we recommend the Ministry of Health work with the Public Health Units to:

- establish a consistent set of inspection and quality-assurance procedures, protocols and tools for conducting consistent food-premises inspections that all Public Health Units can use; and
- require consistent enforcement of the 2018 amendments to the Ontario Food Premises Regulation regarding not having at least one certified food handler or supervisor on the premises who has completed food-handler training during every hour that the premises is operating.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the recommendation to enhance continuous quality improvement. The Ontario Public Health Standards require Public Health Units to ensure continuous quality improvement. The Public Health Units are accountable to the Ministry to identify and use tools, structures, processes and priorities to measure and improve the quality of programs and services based on local need. The work to modernize public health may provide additional opportunities to enhance food safety, including in the area of continuous quality improvement and food safety inspections.

Amendments to the *Health Protection and Promotion Act* Food Premises Regulation in July 2018 led to consistency of multiple food-safety requirements across the province. The food service industry has been given time to achieve compliance with the new requirements. Public Health Units are working in collaboration with food-premises operators toward compliance in meeting this regulatory requirement. The Ministry will also collaborate with Public Health Units to establish a deadline for the food service industry to achieve compliance with the new requirements.

Currently, the Ministry is proposing further amendments to the Ontario Food Premises Regulation for premises that are serving low-risk and/or pre-packaged ready-to-eat foods to further enhance consistency across the province and reduce barriers for operators.

5.2.3 Inconsistent Disclosure by Public Health Units of Inspection Results

There is no requirement for Public Health Units to post the results of their inspections on-site. At the time of our audit, only 15 of the 35 Public Health Units posted the results on-site. The Ministry of Health requires Public Health Units only to have an online disclosure system on which to post

inspection reports within two weeks of a completed inspection. However, we found that four of the 35 Public Health Units (Huron, Perth, Porcupine and Thunder Bay) did not post their inspection results on their respective websites as required by the Ministry of Health. The inspection results for these Public Health Units are available only upon request, meaning that the public must contact them directly to request a copy of the inspection results.

We also noted a number of different inspection-grading systems in use across the province in the Public Health Units' online disclosures, as seen in **Appendix 11**. For example:

- Eight used a three-colour traffic light system: red for closed (immediate health hazard), yellow for conditional pass (pass but has critical infractions that need to be corrected before a re-inspection) and green for pass (zero or minor infractions).
- One Public Health Unit used a two-colour system (red for closed and green for pass).
- Twenty-two Public Health Units only disclosed infractions but used no colour grading scheme.

These variations in inspection grading systems can be confusing and may not give the public consistent and comparable information about food-premises inspection results across different regions of Ontario.

RECOMMENDATION 18

To make inspection results clear for Ontarians, we recommend that the Ministry of Health work with the Public Health Units to establish a single consistent and comparable food premises grading system. Subsequent to establishing the system, we recommend that the Ministry of Health work with the Public Health Units to:

- ensure that all Public Health Units publicly report their inspection results through a single provincial website; and
- ensure that the latest inspection results are posted on-site at food premises.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the recommendation to make inspection results clear for Ontarians. The Ministry is committed to exploring the effectiveness of various disclosure grading systems of food premises in contributing to better public health outcomes. New and emerging technology can increase ways for consumers to access the information.

In 2018, the Ministry improved public disclosure of inspection results through the modernized Ontario Public Health Standards. The Ministry requires all Public Health Units to post their inspection results on their websites. To increase convenience for the public to access inspection reports, the Ministry will assess the development of an online consolidated list of province-wide inspection results.

The Ministry agrees with public access to the latest inspection results of the food premises on site. The Ministry will work with Public Health Units and food premises operators to ensure the latest inspection results are available at the food premises for the public to make informed dining choices.

5.3 Tracking and Monitoring of Foodborne-Illness Outbreaks

Between January 2016 and June 2019, Public Health Ontario recorded nearly 33,000 laboratory-confirmed cases of gastrointestinal illnesses. In 2014, Public Health Ontario reported that about 96% of the top five reportable foodborne illness cases were estimated to go unreported because individuals with symptoms do not always seek medical attention, or lab tests were not performed to confirm the illness.

5.3.1 Public Health Unit Policies on Foodborne-Illness Investigations Differ

There was no consistency in the processes in place to investigate foodborne illnesses connected to food premises at the five Public Health Units we visited.

According to the Ontario Public Health Standards, one of the goals of Public Health Units is the timely and effective detection and identification of, and response to, foodborne illnesses, their associated risks, emerging trends, and unsafe food offered for public consumption. This includes timely monitoring, surveillance and investigation of cases of suspected or confirmed illnesses connected to food premises.

The Ministry of Health's 2018 Food Safety Protocol requires Public Health Units to determine and initiate a response within 24 hours of receiving a food-related complaint. Responding to a complaint can mean contacting the complainant to obtain food history, requesting a stool sample or conducting an inspection of the suspected food premises.

Although the Ministry does not require an inspection within a specified time period, all of the Public Health Units we visited informed us that it is a best practice to perform an inspection, if needed, within 48 hours of receiving the complaint. Delays in completing the inspection within the first two days can mean that the suspect food item may have already been depleted or discarded, and likely food-safety concerns may have already been corrected prior to the inspection. This means the loss of evidence of the cause of the illness.

Our review of the five Public Health Units we visited showed that, once the Public Health Unit determined that a food premises inspection was required, 80% of foodborne-illness complaints connected to a food premises were inspected within two days of the complaint being received, 10% were inspected between three to five days after the complaint, and the other 10% more than five days later.

While the Ministry of Health has established protocols that set out the operating guidelines for co-ordinating with other health agencies during a

foodborne illness outbreak, there are no standardized procedures on how to investigate foodborne illness complaints within each Public Health Unit. Our review showed that the investigation procedures of the five Public Health Units we visited varied.

In one Public Health Unit we visited, for example, we found that someone calling to complain about having gastrointestinal symptoms as a result of eating at a food premises is first spoken to by the infectious disease department, which collects such information as the caller's 72-hour food history. The department also requests a stool sample to help identify the pathogen that caused the illness. Once that work is completed, the case is referred to the food-premises inspection department, which then sends an inspector to investigate the premises and gather samples.

Our review of this Public Health Unit's 2016–2018 inspection records showed that when an inspection resulting from a complaint is needed as per the Ministry's Food Safety Protocol, it conducted 63% of the food premises inspections within two days of receiving the complaint.

In comparison, another Public Health Unit we visited had a process in which a caller's complaint was handled by the food-premises inspection department to receive detailed information from the complainant. The complaint was then assigned to the food-premises inspection department for an inspection. The complainant was not referred to the Public Health Unit's infectious disease department unless there were two or more calls regarding the same food premises; in that case, stool samples would be collected by the infectious disease department.

Our review of this Public Health Unit's 2016–2018 inspection records showed that when an inspection resulting from a complaint is needed as per the Ministry's Food Safety Protocol, it conducted 90% of the food premises inspections within two days of receiving the complaint.

The other three Public Health Units we visited each also had a different protocol in place, and the time each took to investigate complaints connected to a food premises varied.

RECOMMENDATION 19

To improve the effectiveness and consistency of the complaints investigations relating to potential exposures to foodborne hazards, we recommend that the Ministry of Health work with Public Health Units to:

- establish consistent protocols and procedures for the investigation of complaints of potential foodborne illness connected to food premises; and
- require Public Health Units to conduct food premises inspections connected to a potential foodborne illness within two days of receiving the complaint, if an inspection is needed as per the Ministry's Food Safety Protocol.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the recommendation and will include additional information on foodborne hazard exposures as part of the ongoing updates of the Ontario Public Health Standards and Protocols with respect to the investigation of complaints for potential foodborne illness and hazard exposures in connection to a food premises.

The Ontario Public Health Standards are evergreen documents and are continuously updated. As the Ontario Public Health Standards are reviewed and updated, the Ministry will consult with Public Health Units and Public Health Ontario on the evidence-informed best practices to ensure that food premises with foodborne hazards are risk-assessed and investigated in a timely and consistent manner.

5.3.2 Inconsistent Foodborne-Illness Data in Public Health Unit Databases

Data from Public Health Units' investigations and inspections of food premises in response to public complaints of foodborne illnesses must be recorded in each Public Health Unit's database.

In addition, the Public Health Units are also required to record instances of foodborne illnesses

in the Ministry of Health’s integrated Public Health Information System (iPHIS). Public Health Ontario uses the data entered into iPHIS by Public Health Units to monitor and do surveillance of disease trends, and to co-ordinate efforts between Public Health Units and the Ministry of Health during an outbreak of a foodborne illness in Ontario.

We noted, however, that the level of detail recorded in iPHIS varied among the individual Public Health Units, and that the accuracy of data recorded in iPHIS relied on manual inputting by staff of the individual Public Health Units.

In addition, the databases operated by individual Public Health Units and iPHIS were not integrated, meaning it was not possible to do easy information uploading, sharing and cross-database searching.

RECOMMENDATION 20

To improve the consistency in the recording of foodborne-illness information data by Public Health Units, we recommend that the Ministry of Health, in collaboration with the Public Health Units and Public Health Ontario, review current guidelines for data entry reporting into the integrated Public Health Information System and make any necessary revisions.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees foodborne-illness data quality can be further improved to ensure public health and safety. Public Health Ontario, in collaboration with the Ministry, develops standardized questionnaires for enteric illnesses to ensure consistent reporting. With advances in technology, food preparation and social activities, enhanced surveillance directives are given to Public Health Units to expand the scope of questions and data collection in a consistent manner. The Ministry is committed to reviewing, in collaboration with Public Health Ontario and Public Health Units, the current guidelines for data entry reporting into the

integrated Public Health Information System to identify areas for refinement.

5.3.3 Public Health Units Could Further Educate the Public on Food Safety

We reviewed the Ontario data for exposure to gastrointestinal illness between 2016 and 2019. As shown in **Figure 7**, while 9% of all gastrointestinal illness exposure originated from food premises inspected by the Public Health Units, a larger percentage, about 12%, originated at home. These exposures represent a possible source of illness.

The Food Safety Protocol outlines a Public Health Unit’s responsibility in distributing food-safety information and educational material to the general public that includes foodborne-illness prevention, seasonal food safety, new and emerging food safety risks and the safe preparation and handling of food at home.

We reviewed educational and marketing materials on food safety that have been developed by the five Public Health Units we visited and found that

Figure 7: Gastrointestinal Illness Exposures in Ontario Reported by Public Health Units, January 2016–August 2019

Source of data: Integrated Public Health Information System

Exposure Settings and Setting Types	# of Exposures	
	Reported	% of Total
Unknown ¹	16,422	50
Travel	7,752	24
Private homes	4,086	12
Food premises ²	2,883	9
Other settings ³	1,755	5
Total⁴	32,908	100

- Public Health Units investigated and determined that the exposure setting was unknown or undetermined.
- Food premises include restaurants, delis, banquet halls, long-term-care homes, daycare centres, hospitals, schools, shelters and other settings as defined as a food premise under the Food Premise Regulation. These facilities are inspected by Public Health Units.
- Other settings including, but not limited to, petting zoos, workplaces and laboratories.
- This represents the total number of gastrointestinal illness exposures associated with the 27,776 cases that reported exposures. The number of reported exposures is greater than the total number of cases because some cases reported multiple exposures.

these Units were taking steps to ensure that the public is educated about food safety at home. Some of the education materials distributed to the public by the five Units we visited included:

- tips on safe thawing and cooking temperatures and procedures for meat and poultry;
- tips on safe food preparation and serving for outdoor picnics and safe grilling during summer barbeque season;
- brochures on washing fruits and vegetables, proper handwashing technique, and how to use a probe thermometer; and
- information on how to prevent foodborne illnesses.

A 2018 Health Canada survey of Canadians' knowledge and behaviours related to food safety showed that Canadians are generally conducting themselves appropriately when it comes to handling and preparing foods. However, the survey also identified some improper preparation, handling and storage of food by ordinary citizens at home.

For example, 62% of survey respondents rinsed poultry before cooking it, which can increase the risk of food poisoning as splashing water from washing chicken under a tap spreads bacteria onto hands, work surfaces, clothing and cooking equipment.

In addition, 51% of consumers did not use a food thermometer to check whether food is cooked to the recommended temperature, and 43% did not store raw meat, poultry and seafood on the bottom shelf of the fridge to prevent juices from dripping onto other foods and causing cross-contamination. Twenty-two percent of consumers were still defrosting frozen meat on the countertop at room temperature, which promotes bacteria growth on the outside while the inside is still frozen.

RECOMMENDATION 21

To reduce the number of foodborne-illness cases due to improper preparation, handling, cooking and storage of food at home, we recommend that the Public Health Units:

- regularly survey Ontarians to monitor areas of poor food-safety knowledge and behaviours; and
- develop specific educational materials to address those weaknesses.

MINISTRY OF HEALTH RESPONSE

The Ministry of Health agrees with the recommendation and is committed to ensuring public awareness of safe food-handling practices through a variety of means. For example:

- In 2018, the Ministry of Health modernized the Ontario Public Health Standards to require Public Health Units to conduct a local needs assessment as part of their Annual Service Plans. These assessments will take into consideration geographical regions and carry out evidence reviews and research, which includes surveys for populations in their communities to help identify and implement programs and services.
- As part of his role, Ontario's Chief Medical Officer of Health disseminates emerging evidence and information for public awareness on food safety and safe food-handling practices.
- Along with Public Health Units, the Ministry also promotes food safety through seasonal social media campaigns (including, for example, campaigns for Thanksgiving and summer BBQs).

The Ministry will leverage local and federal public education and awareness opportunities in collaboration with public health stakeholders to enhance public awareness and understanding of safe food-handling practices at home. This will include utilizing information from federal surveys and food-safety campaigns to reinforce key messaging for food safety in Ontario.

Appendix 1: Key Public Sector Players in Food Safety

Source of data: Canadian Food Inspection Agency, Ministry of Health and Ministry of Agriculture, Food and Rural Affairs

Federal Government

Health Canada

- Develops federal food-safety regulations and policies
- Develops nationwide mandatory nutrition and allergen-labelling policies
- Performs research and surveillance on foodborne pathogens
- Supports the Canadian Food Inspection Agency (CFIA) on foodborne-illness investigations
- Assesses the effectiveness of CFIA food-safety activities

Canadian Food Inspection Agency (CFIA)

- Provides food-safety oversight of all food sold in Canada (import and export)
- Has the power to enter and inspect any non-federal food facilities
- Co-ordinates food recalls and informs the public
- Participates in ad hoc joint investigations of foodborne illness

Public Health Agency of Canada (PHAC)

- Performs national public-health surveillance
- Co-ordinates foodborne-illness outbreak investigations when two or more provinces are involved
- Maintains national databases of foodborne illnesses
- Provides lab services and sampling to support federal agencies and public-health research

Ontario Government

Ministry of Health (MOH)

- Sets food-safety standards and policies for food premises
- Provides food-safety oversight of food premises and food handling in Ontario
- Co-ordinates investigations of foodborne-illness outbreaks within Ontario
- Oversees and funds local Public Health Units and Public Health Ontario
- Collaborates with OMAFRA on overlaps in regulatory authority for certain food premises such as dairy and meat

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

- Provides food-safety oversight of food produced and sold within Ontario
- Has no authority to order food recalls; supports outbreak co-ordination/investigation, and scientific and analytical work
- Provides industry with food-safety promotion and education

Public Health Ontario (PHO)

- Performs public-health surveillance in Ontario
- Provides lab services, sampling, and scientific and technical advice to MOH and Public Health Units
- Reports to federal PHAC during national outbreaks

Public Health Units in Municipalities

35 Public Health Units

- Inspect local food premises where food is manufactured, prepared, processed, stored, handled, displayed, distributed, transported, sold or offered for sale to consumers
- Responsible for inspecting:
 - retail portion of provincially licensed dairy and meat-processing plants;
 - small-volume and low-risk meat-processing plants producing such items as frozen pizza, beef broth and sandwiches;
 - facilities that produce minimally processed vegetables such as bagged salads and sliced vegetables; and
 - manufacturing plants that process milk not from cows and goats (e.g., sheep)
- Investigate and report foodborne illness to PHO and MOH and manage local outbreaks
- Conduct surveillance of foodborne illnesses and monitor trends over time
- Provide training, education and awareness to food handlers and the public

Appendix 2: Federal and Provincial Oversight of Meat, Fruits and Vegetables, Fish and Seafood, Dairy, Eggs and Organics

Prepared by the Office of the Auditor General of Ontario

	Canadian Food Inspection Agency and Health Canada	Ontario Ministry of Agriculture, Food and Rural Affairs	Public Health Units
Meat	<ul style="list-style-type: none"> Farms: regulate the sale of drugs and feed to livestock, as well as their transport Slaughterhouses: license and regulate slaughterhouses that sell to other provinces and countries¹ Meat-processing plants: license and regulate plants that sell to other provinces and countries² 	<ul style="list-style-type: none"> Slaughterhouses: licenses and regulates slaughterhouses that sell only within Ontario¹ Meat-processing plants: licenses and regulates plants that sell only within Ontario and those conducting high-volume processing activities² 	<ul style="list-style-type: none"> Regulate and inspect meat processors that mostly do food services or low-volume meat processing such as butchers and restaurants that smoke or cure their own meat
Fruits and Vegetables	<ul style="list-style-type: none"> Inspect importers and exporters of produce Sample produce from grocery stores for bacteria and chemical residue 	<ul style="list-style-type: none"> Samples Ontario grown produce for bacteria and chemical residue from produce farms, farmers' markets, wholesalers, roadside stalls and retail 	<ul style="list-style-type: none"> Inspect farmers' markets Regulate and inspect produce processor and retail stores
Fish and Seafood	<ul style="list-style-type: none"> Inspect importers and exporters of wild-caught and farmed fish and seafood Sample imported fish and seafood from retail for heavy metals, bacteria and chemical residue 	<ul style="list-style-type: none"> Inspects provincial fish- and seafood-processing plants Regulates and inspects dual fish (retail and processing) premises 	<ul style="list-style-type: none"> Regulate and inspect dual fish (retail and processing) premises
Dairy	<ul style="list-style-type: none"> License and inspect federal dairy-processing plants that sell to other provinces and countries 	<ul style="list-style-type: none"> Inspects goat-milk farms (Ministry of Agriculture) and cow-milk farms (Dairy Farmers of Ontario) Certifies graders who have the authority to accept or reject raw milk at the farm and the processing plant Inspects tank trucks that transport raw milk to processing plants Samples goat and cow raw milk and finished products for bacteria and inhibitors³ Inspects provincial dairy-processing plants that sell only within Ontario Licenses all dairy-processing plants in Ontario (both federal and provincial) 	<ul style="list-style-type: none"> Regulate and inspect retail stores where milk products are sold
Eggs	<ul style="list-style-type: none"> Grade all hen eggs in Canada 	<ul style="list-style-type: none"> Responds to information requests and complaints related to hen eggs 	<ul style="list-style-type: none"> Regulate and inspect retail stores where egg products are sold or used
Organics	<ul style="list-style-type: none"> Regulate, establish and enforce organic standards Approve certification bodies that inspect organic producers Respond to and investigate organic complaints 	<ul style="list-style-type: none"> No Ministry of Agriculture oversight 	<ul style="list-style-type: none"> No Public Health Unit oversight

1. Slaughterhouses slaughter livestock for further processing on-site or for distribution.

2. Meat-processing plants process and/or package meat.

3. Inhibitors are antibiotics, medicines or chemicals that can be detected in milk.

Appendix 3: OMAFRA's Food Safety Inspection and Audit Results, 2014/15-2018/19

Source of data: Ministry of Agriculture, Food and Rural Affairs

Facilities	Inspections and Audits			
	2015 ¹	2016 ¹	2017 ¹	2018 ¹
Meat – slaughterhouses ¹	<ul style="list-style-type: none"> 123 audits Audit pass: 77.2% Conditional pass: 22.8% Fail: 0% 	<ul style="list-style-type: none"> 120 audits Audit pass: 80% Conditional pass: 16.7% Fail: 3.3% 	<ul style="list-style-type: none"> 117 audits Audit pass: 65.8% Conditional pass: 29.9% Fail: 4.3% 	<ul style="list-style-type: none"> 119 audits Audit pass: 70.6% Conditional pass: 23.5% Fail: 5.9%
Meat – processing plants ²	<ul style="list-style-type: none"> 335 audits Audit pass: 98.3% Conditional pass: 1.7% Fail: 0.0% 	<ul style="list-style-type: none"> 374 audits Audit pass: 98% Conditional pass: 1.4% Fail: 0.6% 	<ul style="list-style-type: none"> 347 audits Audit pass: 95.6% Conditional pass: 3.2% Fail: 1.2% 	<ul style="list-style-type: none"> 334 audits Audit pass: 96% Conditional pass: 2.9% Fail: 1.1%
Dairy – cow milk on farm ³	<ul style="list-style-type: none"> 2,833 inspections Inspection pass (Grade A): 83.1% Conditional pass: 10.6% Non-Grade A⁺: 5.9% Unsanitary: 0.4% 	<ul style="list-style-type: none"> 3,066 inspections Inspection pass (Grade A): 85.1% Conditional pass: 6.9% Non-Grade A⁺: 7.9% Unsanitary: 0.1% 	<ul style="list-style-type: none"> 3,211 inspections Inspection pass (Grade A): 87.4% Conditional pass: 4.2% Non-Grade A⁺: 8.4% Unsanitary: 0.0% 	<ul style="list-style-type: none"> 3,323 inspections Inspection pass (Grade A): 89.8% Conditional pass: 4.3% Non-Grade A⁺: 5.9% Unsanitary: 0.0%
Dairy – goat milk on farm ⁵	<ul style="list-style-type: none"> 155 inspections Inspection pass: 60.0% Conditional pass: 38.1% Non-Grade A⁺: 0.6% No results: 1.3% 	<ul style="list-style-type: none"> 203 inspections Inspection pass: 52.2% Conditional pass: 44.8%⁶ Non-Grade A⁺: 0.5% No results: 2.5% 	<ul style="list-style-type: none"> 237 inspections Inspection pass: 49.0% Conditional pass: 50.6%⁷ No results: 0.4% 	<ul style="list-style-type: none"> 262 inspections Inspection pass: 63.4% Conditional pass: 34.7% No results: 1.9%
Dairy processing	<ul style="list-style-type: none"> 37 in-depth inspections provincial plants Licences renewed: 100% 	<ul style="list-style-type: none"> 36 in-depth inspections provincial plants Licences renewed: 100% 	<ul style="list-style-type: none"> 40 in-depth inspections provincial plants Licences renewed: 100% 	<ul style="list-style-type: none"> 48 in-depth inspections provincial plants Licences renewed: 98% Conditional licence renewals: 2%
Fish processing	<ul style="list-style-type: none"> 266 inspections n/a⁸ 	<ul style="list-style-type: none"> 250 inspections Inspection pass: 66.8% Conditional pass: 14.0% Fail: 18.4% No results: 0.8% 	<ul style="list-style-type: none"> 239 inspections Inspection pass: 76.6% Conditional pass: 12.6% Fail: 10.5% No results: 0.3% 	<ul style="list-style-type: none"> 201 inspections Inspection pass: 77.9% Conditional pass: 12.6% Fail: 9.5%

1. Inspections are also conducted, but do not result in pass, conditional pass, or fail. Inspections result in infractions that require corrective action plans. The number of inspections from 2015 to 2019 range from 8,431 to 9,787.

2. The number of inspections from 2015 to 2019 range from 5,428 to 5,563.

3. As of July 2019.

4. Non-Grade A means that the farm has an item or items that are not in compliance with regulations and that may adversely impact milk quality or animal welfare.

5. As of August 2019. Goat inspections take place throughout the year.

6. Number of conditional passes in 2016 correlate to growth in number of new goat-milk producers.

7. Downturn in goat-milk market led many producers to seek off-farm jobs, leading to a higher-than-usual number of deficiencies noted during farm inspections.

8. The Ministry did not assign ratings for fish processors during the 2014/15 fiscal year.

Appendix 4: OMAFRA's Food Safety Sample Testing Results, 2014/15 to 2018/19

Source of data: Ministry of Agriculture, Food and Rural Affairs

Commodity and Test ¹	% of Samples with Adverse Results/Positive Swabs				
	2014/15	2015/16	2016/17	2017/18	2018/19
Meat – raw: microbial (trichina parasite and BSE only)	0	0	0	0	0
Meat – raw: chemical	2.1	1.4	2.1	1.8	1.0
Meat – ready-to-eat: microbial	5.8	7.3	5.9	3.7	4.7
Meat – water testing: microbial	1.2	1.4	0.8	1.0	1.0
Dairy – cow milk (on farm) ² : microbial, chemical	3.2	3.0	2.9	2.5	2.2 ³
Dairy – goat milk (on farm): microbial, chemical	11.4	14.7	14.2	13.7	31.2 ⁴
Dairy processing (finished product): microbial	4.1	3.4	5.6	4.0	3.2
Produce: microbial, chemical	1.2	0.9	1.1	3.2	3.7
Fish processing: microbial, environment	n/a	17.7	11.4	11.9	19.4

1. "Microbial" tests for bacteria such as *Listeria* and *Salmonella*. "Chemical" tests for drugs and antibiotics. "Environment" swabs surfaces that come into contact with food to test for bacteria.

2. Data for 2015 through 2018 from December monthly reports by Dairy Farmers of Ontario. Data from 2019 is as of July 2019.

3. Somatic cell count adverse level established in October 2018 and so not included in prior years' adverse results.

4. Starting in 2018/19, adverse results include bacteria, somatic cell counts and inhibitors.

Appendix 5: Comparison of Farming Standards for Organic and Conventional Livestock

Source of data: Canadian Food Inspection Agency, Organic Council of Ontario

Item	Organic Farming	Conventional Farming
Antibiotics	<ul style="list-style-type: none"> Dairy cows can be treated with antibiotics in medical emergencies, and can continue to produce organic milk after 30 days or twice the withdrawal period as prescribed, whichever is longer. There is zero tolerance for all meat; any antibiotic treatment results in the loss of the meat's organic designation. 	<ul style="list-style-type: none"> The withdrawal period for antibiotic treatment is as prescribed. All Canadian milk must be free of drug residue such as antibiotics. All Canadian meat is sample tested at the slaughterhouse to ensure it is free of drug residue such as antibiotics.
Hormones	<ul style="list-style-type: none"> Growth hormones are not allowed in any livestock. 	<ul style="list-style-type: none"> Growth hormones may be used in beef cattle. Growth hormones are not allowed in poultry, pork or any milk-producing dairy cattle.
Feed	<ul style="list-style-type: none"> Feed must be certified organic or from non-synthetic sources occurring in nature, such as marine products. Mineral substances are permitted only if they are of natural origin. 	<ul style="list-style-type: none"> Feed does not have to be certified organic.
Lighting	<ul style="list-style-type: none"> Livestock should not be exposed to continuous lighting or kept in permanent darkness. 	<ul style="list-style-type: none"> No specific requirements or guidelines.
Climate control	<ul style="list-style-type: none"> While in transit and before slaughter, animals shall have shelter against inclement weather such as wind, rain and excessive heat or cold. 	<ul style="list-style-type: none"> No specific requirements or guidelines.
Transportation	<ul style="list-style-type: none"> Physical segregation or other methods shall be used to avoid commingling or substitution with non-organic ingredients and products. Organic products in transit must include the following information: <ul style="list-style-type: none"> name and address of producer; name of the product; organic status of the product; and traceability information such as a lot number. 	<ul style="list-style-type: none"> No specific requirements or guidelines.

Appendix 6: Additional Farming Standards for Specific Organic Livestock

Source of data: Canadian Food Inspection Agency, Organic Council of Ontario

Livestock	Standards
Poultry	<ul style="list-style-type: none"> • Poultry shall not be kept in cages. • Poultry must be raised in a free-range environment and have access to pasture, open-air runs, and other exercise areas, weather permitting. • Laying flock must have outdoor access for a minimum of one-third of their laying life. • Meat chickens raised outdoors in shelters without indoor access shall have access to pasture on a daily basis by the age of four weeks. • Poultry must be fed daily; “skip a day” feeding regime is prohibited. • Poultry barns shall have sufficient exits (popholes) to ensure that all birds have outdoor access, and these exits must allow for passage of more than one bird at a time, and be evenly distributed along the line of access to the outdoor range. • Barns must contain natural light, bright enough to read a newspaper in the room. If the length of day is artificially prolonged, the total duration of light shall not exceed 16 hours, and shall be terminated by gradual reduction of light intensity followed by eight hours of continuous darkness.
Cattle, sheep, goats	<ul style="list-style-type: none"> • Herbivores shall have access to pasture during the grazing season. • At other times, they shall have access to the open air or an outdoor exercise area, weather permitting. • Exceptions can be made for breeding males and cattle confined to outdoor lots during the final finishing phase, and young animals if their health/well-being is threatened and documented.
Hogs	<ul style="list-style-type: none"> • Hogs shall have access to outdoor exercise areas, which should allow for rooting. Outdoor areas may include woodlands or other natural environments; access to pasture is recommended but not mandatory. • Piglets shall not be kept on flat decks or in cages. • Nose rings are prohibited. • Sows and gilts shall be kept in groups, with the following exceptions: <ul style="list-style-type: none"> • females in estrus may be placed in individual pens for up to 5 days; and • sows in the suckling phase can be placed in a pen.

Appendix 7: General Requirements for Organic Produce

Prepared by the Office of the Auditor General of Ontario

Topic	Organic
Pesticides	<ul style="list-style-type: none"> Only approved substances found in the Canadian General Standards Board¹ document, “Organic Production Systems – Permitted Substances Lists”² can be used on organic farmland Any substance not on this list is considered a prohibited substance
Transition Period	<ul style="list-style-type: none"> No prohibited substances can be used on the land for at least 36 months before produce can be certified organic If there are new crops added to the existing organic operations, the operator must provide evidence that the land is in compliance with the 36-month requirement
Parallel Production	<ul style="list-style-type: none"> Parallel production is defined as the same crop being produced organically and non-organically at the same time This practice is banned under the organic standards; exceptions may be made for processing plants using separate lines as well as perennial plants (plants that do not need to be replanted each year)
Split Production	<ul style="list-style-type: none"> Split production is the production of different crops, some produced organically and some non-organically This practice is allowed under the organic standards, as long as the split operation is entirely separate and identified separately
Cross-Contamination	<ul style="list-style-type: none"> Distinct buffer zones (i.e., at least 8 m wide) or other barriers (e.g., hedgerows, windbreaks, permanent roads or other physical obstructions) are required to prevent cross-contamination with prohibited substances Crops grown in a buffer zone are not considered organic
Crop Management	<ul style="list-style-type: none"> The soil fertility should be maintained or increased through crop rotations that are as varied as possible and include plough-down, legumes, catch crops, deep-rooting plants and compost when necessary
Crop pest, disease and weed management	<ul style="list-style-type: none"> Producers are encouraged to use alternative pest control methods such as crop rotation, mulching, traps and animal grazing The use of permitted organic pesticides is allowed when organic management practices and alternative pest control methods alone cannot prevent or control crop pests, disease or weeds
Irrigation	<ul style="list-style-type: none"> Irrigation is permitted provided that the operator documents precautions taken to prevent contamination of land and products with prohibited substances

1. The Canadian General Standards Board is a federal government organization that develops standards for products and services in Canada.

2. http://publications.gc.ca/collections/collection_2018/ongc-cgsb/P29-32-311-2018-eng.pdf

Appendix 8: Data on Ontario Public Health Units as of December 31, 2018

Prepared by the Office of the Auditor General of Ontario

Public Health Unit	Population Served ¹	# of Food Premises ²	Expenditures Funded by the Ministry (\$)	Expenditures Funded by the Municipalities (\$) ³	Total Expenditures (\$) ³	# of Food Safety Staff ⁴
Algoma	113,084	608	1,305,741	379,414	1,685,155	13
Brant	134,943	621	427,440	202,132	629,572	4
Chatham-Kent	102,042	595	472,100	150,400	622,500	5
Durham	645,862	3,031	1,881,047	768,385	2,649,432	17
Eastern Ontario	202,762	1,197	1,020,749	328,250	1,348,999	7
Grey Bruce	161,977	1,002	834,000	262,133	1,096,133	8
Haldimand Norfolk	109,652	510	335,526	109,915	445,441	4
Haliburton, Kawartha, Pine Ridge	179,083	955	838,035	266,178	1,104,213	7
Halton	548,430	2,643	1,470,112	945,647	2,415,759	17
Hamilton	536,917	3,183	1,369,125	489,013	1,858,138	16
Hastings Prince Edward	161,180	996	665,432	215,374	880,806	8
Huron County	59,297	379	238,696	76,896	315,592	2
Kingston	193,363	1,265	586,159	324,819	910,978	7
Lambton	126,638	607	370,021	150,039	520,060	4
Leeds	169,244	921	532,201	238,741	770,942	6
Middlesex-London	455,526	2,491	1,224,251	458,377	1,682,628	13
Niagara	447,888	2,633	1,533,302	553,897	2,087,199	17
North Bay Parry Sound	123,820	654	881,215	260,870	1,142,085	8
Northwestern	76,455	419	298,017	82,341	380,358	3
Ottawa ⁵	934,243	4,914	2,788,226	1,011,084	3,799,310	32
Peel ⁵	1,381,744	5,512	3,174,908	1,689,521	4,864,429	38
Perth	76,796	503	278,241	89,272	367,513	3
Peterborough	138,236	910	434,996	136,665	571,661	4
Porcupine	84,201	512	468,740	135,126	603,866	4
Renfrew	103,593	600	543,776	181,259	725,035	6
Simcoe Muskoka ⁵	540,249	2,987	1,596,983	562,957	2,159,940	14
Southwestern	199,840	1,306	599,246	228,959	828,205	6
Sudbury	196,448	1,302	1,057,035	352,058	1,409,093	11
Thunder Bay	151,884	941	832,967	141,903	974,870	8
Timiskaming	33,049	324	229,718	66,360	296,078	2
Toronto ⁵	2,731,571	16,879	10,681,327	3,451,855	14,133,182	108
Waterloo	535,154	2,773	1,181,138	374,013	1,555,151	12
Wellington-Dufferin-Guelph	284,461	1,448	1,119,568	691,829	1,811,397	10
Windsor-Essex County	398,953	2,243	1,120,752	382,514	1,503,266	12
York ⁵	1,109,909	5,408	3,333,420	1,648,434	4,981,854	36
Total	13,448,494	73,272	45,724,210	17,406,630	63,130,840	472

1. Based on the 2016 Census population prepared by Statistics Canada.

2. Number of food premises (high-, moderate-, low-risk) within Public Health Units' jurisdiction (excludes facilities under CFIA or OMAFRA oversight).

3. This information is self-reported by the Public Health Units.

4. Measured in full-time equivalents (FTEs).

5. Public Health Units where OAGO visited and performed audit field work.

Appendix 9: Audit Criteria

Prepared by the Office of the Auditor General of Ontario

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

1. Food-safety licensing, inspection and sampling programs are delivered across the province in a consistent and timely manner, are effective in managing food-safety risks, and take into account best practices from other jurisdictions.
2. Processes are in place to ensure that resources, including human and financial, are managed economically and efficiently. Staff also have sufficient and appropriate training, regulatory tools and resources to identify and correct food-safety deficiencies and enforce food-safety legislation and regulations.
3. OMAFRA collects and maintains timely, accurate and complete information on licensing, inspection and sampling programs, as well as information about food producers and food processors to inform program policies and staffing decisions.
4. OMAFRA measures and publicly reports on the effectiveness of its food-safety licensing and inspection programs. Corrective actions are taken on a timely basis when issues are identified.

Ministry of Health and Public Health Units

1. Public Health Units inspect food premises such as restaurants and food retailers using a risk-based approach in a consistent and timely manner taking into account best practices from other jurisdictions to prevent food safety risks.
2. Food-premises inspections are managed economically, efficiently and are performed by appropriately trained Public Health Unit inspectors to identify and correct food safety deficiencies in food premises.
3. Public Health Units measure and publicly report periodically on the effectiveness of their food premises inspections and food handler training programs. Corrective actions are taken on a timely basis when issues are identified.
4. Foodborne-illness outbreaks are accurately recorded, monitored, investigated and resolved on a timely basis to minimize the impact on public health.

OMAFRA and Public Health Units

1. Roles and responsibilities between the OMAFRA, Public Health Units through the Ministry of Health, and the federal government for food safety in the province are clearly defined and accountability requirements are established.
2. OMAFRA and the Public Health Units through the Ministry of Health have efficient and effective systems in place to co-ordinate their efforts and share information on a timely basis and with other government stakeholders in the delivery of food-safety programs and during foodborne-illness outbreaks and food recalls.
3. OMAFRA educates food producers and processors, and the Public Health Units through the Ministry of Health educate food premises operators and the public about food-safety best practices.

Appendix 10: Common Labels on Food Products

Prepared by the Office of the Auditor General of Ontario

Label	Notes
Allergens	<ul style="list-style-type: none"> Allergen labelling is required if packaged food contains any priority¹ food allergens, gluten sources or added sulphites. Allergens can be declared through the ingredients list, or a “contains” statement detailing all allergens present in the food. Cross-contamination or precautionary statements (e.g., “may contain ...”) may be declared by food manufacturers and importers when, despite all reasonable measures, there is the unintended presence of food allergens in the food.
Free of Pesticides	<ul style="list-style-type: none"> Use of the claim “free of pesticide residues” on fresh fruits and vegetables can be misleading as produce may have been exposed to pesticide residues from neighbouring farms, chemical drift or runoff. Producer is responsible to demonstrate that product is free of pesticide residue when making such a claim. Applies to fruits and vegetables.
Free Range	<ul style="list-style-type: none"> Ability to regularly roam outdoors. No specific requirements for the outdoor space and time spend outdoors. CFIA does not have a definition for this claim and there is no formal certification process. Applies to egg-laying chickens and to meat.
Free Run	<ul style="list-style-type: none"> Ability to roam inside the barn. In egg production, “free run” (or “cage free”) refers to eggs produced by hens kept outside cages in open-concept barns. Egg-laying chickens are allowed to run free indoors and, ideally, have access to nests and roosting spaces. CFIA does not have a legal definition for this claim and there is no formal certification process. Applies to egg-laying chickens and to meat.
Gluten Free	<ul style="list-style-type: none"> Voluntary certification provided by the Canadian Celiac Association (CCA). Certification requires the use of independent third-party inspectors to verify that manufacturers meet the program’s requirements on an annual basis.
Grain Fed	<ul style="list-style-type: none"> Minimum percentages of feed made up of grains and grain by-products over animal’s entire life. For red meat animals (beef, veal, pork, lamb, mutton, goat, rabbit, horse, venison and bison) the minimum is 75%. For turkey, it is 80%, and for chicken, 85%. Applies to meat.
Grass Fed	<ul style="list-style-type: none"> Currently no provincial or national standards in Canada. Various entities, including Pro-Cert and Dairy Farmers of Ontario, have developed individual grass-fed standards. Applies to meat and dairy.
Halal	<ul style="list-style-type: none"> Foods certified as “halal” must include the full name of the certifying organization. Federal regulations do not specify how organizations qualify to certify foods as halal, and the CFIA does not oversee such organizations.
Kosher	<ul style="list-style-type: none"> Foods certified as “kosher” must include the full name of the certifying organization. Federal regulations do not specify how organizations qualify to certify foods as kosher, and the CFIA does not oversee such organizations.
Natural	<ul style="list-style-type: none"> Product contains no artificially added vitamins, nutrients, artificial flavours or other additives. Cannot be significantly processed or have anything removed except water. Natural meat may not be raised using antibiotics, hormones or other drugs. Applies to eggs, meat,² dairy, fruits and vegetables, and seafood.

Label	Notes
Non-GMO (Non-Genetically Modified Organism) Project Verified	<ul style="list-style-type: none"> • Voluntary certification provided by the Non-GMO Project, a US organization dedicated to building and protecting a non-GMO food supply. • Certification involves sample testing according to a risk-assessed sampling plan, as well as annual inspections by third-party inspectors commissioned by the Non-GMO Project. • Applies to meat, fruits and vegetables, seafood and eggs.
Omega-3	<ul style="list-style-type: none"> • Nutrient content claims are not permitted for total polyunsaturates, monounsaturates or individual fatty acids. • The only claims permitted are: “Source of/contains/provides omega-3 polyunsaturated fatty acids.” • The amount of each fatty acid is disclosed on the nutritional label of each product. • Applies to eggs.
Organic	<ul style="list-style-type: none"> • Use of Canada Organic Logo permitted only on products with organic content of 95% or more, and those certified according to requirements of the Canada Organic Regime. • Organic farms certified by a CFIA-accredited certification body. • Organic foods produced without growth hormones or antibiotics, and animal feed must also be organic. • Products with 70–95% organic ingredients may not use Canada Organic Logo and can only declare percentage of organic ingredients. Products with less than 70% organic content may identify the organic ingredients. • Applies to eggs, meat (all organic poultry is free-range and free-run), dairy,³ fruits and vegetables, and seafood.⁴
Raised without Antibiotics	<ul style="list-style-type: none"> • Animal was not treated with antibiotics. • Vaccinations and other preventive drugs are allowed for dairy cattle and livestock marked for consumption. • All Canadian milk is free of antibiotics. • Applies to eggs, meat and fish.
Raised without Hormones	<ul style="list-style-type: none"> • Animal or mother not treated with hormones. • Label not allowed for dairy, poultry and pork products without an additional qualifying statement such as “like other similar products” because growth hormones are already banned for these commodities. • Applies to meat, dairy and fish.
Simulated meat and poultry products (commonly referred to as plant-based meat)	<ul style="list-style-type: none"> • Products contain no meat, but are represented as having physical and nutritional characteristics of meat or poultry. • The words “Simulated (meat/poultry)” must appear on labels and ads for all simulated meat or poultry foods. • The phrase “contains no meat” or “contains no poultry” is required on the principal display panel of the label, close to the product name. • Applies to fruits and vegetables.
Vegetarian/Vegan	<ul style="list-style-type: none"> • Vegetarian can be used to describe the following foods: <ul style="list-style-type: none"> • lacto-ovo- (or ovo-lacto)-vegetarian, which permits plant foods plus dairy and eggs; • lacto-vegetarian, which permits plant foods plus dairy, but not eggs; • ovo-vegetarian, which permits plant foods plus eggs, but no dairy; and • vegan, which permits plant foods only. • Applies to eggs, dairy, and fruits and vegetables.

1. Priority allergens are the 12 most common food allergens: gluten, eggs, milk, mustard, peanuts, crustaceans and mollusks, fish, sesame seeds, soy, sulphites, tree nuts, wheat and triticale.

2. To be considered natural, the animal must have been raised with minimal human intervention (i.e., not raised on a farm).

3. Same level of inhibitors (e.g., antibiotics) and testing applies to both conventional and organic cow farms.

4. Organic regulations apply only to farmed aquaculture products; products from fishing of wild animals are not covered.

Appendix 11: Inspection Grading Systems of Ontario's 35 Public Health Units as of November 7, 2019

Prepared by the Office of the Auditor General of Ontario

Public Health Unit	Online Disclosure			On-Site (At Food Premises) Disclosure		
	<ul style="list-style-type: none"> • Green (Pass) • Red (Closed) 	<ul style="list-style-type: none"> • Green (Pass) • Yellow (Conditional Pass) • Red (Closed) 	Only Infractions Disclosed	No Online Disclosure	<ul style="list-style-type: none"> Inspection Results Posted as Summary, Colour-Coding or Grading System 	<ul style="list-style-type: none"> Inspection Signage with Website or QR Code to Access Results No On-Site Posting at Food Premises
Algoma			✓			✓
Brant			✓		✓	
Chatham-Kent			✓			✓
Durham		✓			✓	
Eastern Ontario		✓			✓	
Grey Bruce			✓			✓
Haldimand Norfolk			✓			✓
Haliburton, Kawartha, Pine Ridge	✓				✓	
Halton			✓		✓	
Hamilton		✓			✓	
Hastings Prince Edward			✓			✓
Huron County				✓		✓
Kingston			✓			✓
Lambton		✓			✓	
Leeds			✓			✓
Middlesex-London		✓			✓	
Niagara			✓			✓
North Bay Parry Sound			✓		✓	
Northwestern			✓			✓

Public Health Unit	Online Disclosure			On-Site (At Food Premises) Disclosure			
	<ul style="list-style-type: none"> • Green (Pass) • Red (Closed) 	<ul style="list-style-type: none"> • Green (Pass) • Yellow (Conditional Pass) • Red (Closed) 	Only Infractions Disclosed	No Online Disclosure	Inspection Results Posted as Summary, Colour-Coding or Grading System	Inspection Signage with Website or QR Code to Access Results	No On-Site Posting at Food Premises
Ottawa		✓				✓	
Peel		✓			✓		
Perth				✓			✓
Peterborough			✓			✓	
Porcupine				✓			✓
Renfrew			✓			✓	
Simcoe Muskoka			✓		✓		
Southwestern			✓			✓	
Sudbury			✓			✓	
Thunder Bay				✓			
Timiskaming			✓				✓
Toronto		✓			✓		
Waterloo			✓			✓	
Wellington-Dufferin-Guelph			✓			✓	
Windsor-Essex County			✓			✓	
York			✓		✓		
Total	1	8	22	4	14	15	6

Appendix 12: Glossary of Terms

Source of data: Canadian Food Inspection Agency, Organic Council of Ontario

Antibiotics: drugs used to treat bacterial infections in animals or to build up bacterial resistance.

Audit (specific to meat-processing plants): an annual comprehensive review of plant operations to verify and ensure compliance with legislation and regulations (plant operators are given advance notice of audits).

Bulk tank milk grader: responsible for grading and sampling milk, and ensuring quality is acceptable, before loading milk at farms and delivering it to dairy processors

Candling: a process by which chicken eggs are inspected against a light to check for interior defects.

Environmental sampling: taking swabs from surfaces that come into contact with food.

Food handler certification: an educational program offered by Ontario's public health units, other educational institutions, and commercial entities to improve the knowledge of food-premises staff about food-safety practices to minimize the risk of foodborne illnesses (as of July 2018, food premises in Ontario must have at least one certified food handler on site during operating hours).

Food premises: a place where food or milk is manufactured, prepared, processed, stored, handled, displayed, distributed, transported, sold or offered for sale.

Foraged foods: food items gathered from plants growing in the wild (e.g., pinecones, berries, tree bark, etc.)

Free-range chickens: chickens raised with access to the outdoors (certification bodies for free-range chickens are self-governing and not subject to regulatory oversight).

Free-run chickens: chickens raised with the freedom to move within the barn (certification bodies are self-governing and not subject to regulatory oversight).

Glyphosate: herbicide more commonly known as Roundup and widely used to kill weeds in crops, commonly found on corn and soybeans.

Grain-fed chickens: chickens raised on a grain-based diet.

Health hazard: the *Health Protection and Promotion Act* defines a health hazard as a condition of a food premises, a substance, thing, plant or animal, or a solid, liquid, gas or any combination of them that has or is likely to have an adverse effect on the health of any person.

Hormone: substance occurring naturally in animals that regulates bodily functions and behaviour (in Canada, hormones can be administered to beef cattle to enhance muscle growth so an animal can gain weight on less feed).

Inhibitors: antibiotic, medicine or chemical that can be detected in milk.

Inspection: routine monitoring and review at food premises of employee hygiene and operational standards, collection of samples, and verification of adherence to written programs for sanitation, pest control, etc. (inspection frequency is based on the premises' level of risk, with the exception of abattoirs, for which an inspector must be present at all times of slaughter to inspect every animal before and after the slaughter).

Maximum residue limit: limits established by Health Canada to minimize health risks to consumers from excessive exposure to chemical residues and contaminants in foods.

Mobile food premises: a trailer, cart, vehicle, or other itinerant food premises that can be readily moved and in which food is prepared and offered for sale to the public.

Outbreak: an incident in which two or more unconnected persons experience similar illness and there is epidemiologic evidence of an association between them.

Pathogen: a bacterium, virus or other microorganism that can cause disease.

Withdrawal period: minimum time between the administration of a drug and the production of meat or other animal-derived products for food such that the level of drug residue would not likely cause injury to human health.