



**FOOD SAFETY AND
LICENSED FACILITY-BASED
CHILD CARE REVIEW PANEL**

**FINAL
REPORT**

Prepared for:
Government of Alberta
June 2024

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EXECUTIVE SUMMARY

On September 4, 2023, Alberta Health Services (AHS) declared an outbreak of Shiga toxin producing *Escherichia coli* O157:H7 (STEC) at multiple child care facilities in Calgary that received food from a common kitchen. This is the largest STEC outbreak associated with children in the province's history and resulted in a total of 448 cases, 359 of which were laboratory confirmed and 89 of which were deemed probable. Almost all of the infections were in children (287 confirmed cases and 72 probable cases in those under the age of 18). There were no deaths; however, 38 children and one adult were hospitalized with severe illness and impacts from the outbreak were devastating and far reaching.

As part of the response to the outbreak, the Government of Alberta established the Food Safety and Licensed Facility-Based Child Care Review Panel (Review Panel). The Review Panel was mandated to review the events and response surrounding the outbreak and provide recommendations on how associated legislation, regulation, applicable standards, guidelines or operating procedures could be strengthened to ensure food safety for Alberta's children in licensed child care facilities.

The findings and recommendations presented in this report represent the culmination of seven months of dialogue and learning from a diverse array of food safety and public health professionals, early learning and child care professionals, families affected by the outbreak, subject matter experts and members of the public. In addition to conducting research and jurisdictional scans, the Review Panel conducted public and targeted engagement sessions, including roundtables with affected families and child care providers from Calgary.

Three overarching themes emerged from this dialogue and learning, which guided the development of the Review Panel's recommendations. These themes are:

- A. Fostering a culture of food safety that supports high quality, safe and healthy learning environments for children.**
- B. Public policy, legislation and inspection systems for food safety.**
- C. System alignment and integration.**

These themes are rooted in the Review Panel's guiding principles and are instrumental for developing a food safety system that is trustworthy, accountable and centered around families and their children. The themes serve as a roadmap for identifying **12 main recommendations and 27 sub-recommendations** that promote and protect the health and safety of Alberta's children in these settings.

While the work of this report relied on various inputs, the Review Panel would like to particularly acknowledge the time and thoughtful contributions of affected family members who voluntarily participated in roundtable discussions. Each family contributed their unique lived experiences, perspectives and suggestions for improving food safety in the preparation and serving of food in facility-based child care settings.

For many affected families, the significance of this outbreak remains impossible to ignore or forget. Importantly, the Review Panel heard that the event significantly eroded trust in the processes and systems that were relied upon to assure their children were provided safe food. For many, this trust remains tenuous, but the Review Panel firmly believes the implementation of recommendations in this report will be a significant contribution to alleviate the concerns of the families and provide the assurance that all families need when entrusting their children to care.

IMPACT OF THE OUTBREAK ON FAMILIES

The 2023 *E. coli* outbreak in licensed child care facilities in Calgary has had lasting impacts on the children, their families, the community and beyond.



INDIVIDUALS

“These kids will carry this (the long-term health impacts) for life.”

“We, as parents, send our children to school, day cares, etc. with the belief that our children will be protected... in this case, we let our children down.”

FAMILY

“It has scared us, we are so careful and almost scared to eat.”

“I was off work for 6 months.”

“We were fortunate that we could make a change in how I worked and how much I worked so that I could stay home with my child.”

COMMUNITY

“I will no longer allow my child to consume foods provided by a child care facility. Our confidence was completely ruined by this experience...”

“The front-line staff at the hospital were incredible and were pulling things together quickly...”

BROADER IMPACT

“This experience has caused our family and many close to us to lose faith in systems created to protect us when it comes to food safety.”

“I no longer feel confident that just because a place is regulated that the food will be safe.”

ACKNOWLEDGEMENTS

The Review Panel extends its profound gratitude to everyone who contributed to the fulfillment of its mandate. Through surveys, written submissions, interviews and roundtable discussions, more than 400 individuals from within and outside Alberta, generously donated their time, experiences, perspectives, advice and expertise. Their collective effort has shaped the recommendations and findings included in this report. Without this valuable participation, the efforts of the Review Panel would not have been as focused or robust.

In particular, the time and thoughtful contributions of affected family members who participated in engagement opportunities was vital to the review. In addition to those who were able to provide input, the Review Panel acknowledges the challenges and significant difficulties faced by all families impacted by the outbreak. The disruption to their lives, beyond their health concerns, was significant and long-lasting. This fact became central to the Review Panel's deliberations, driving a thorough review of the event and comprehensive recommendations to restore security and trust in food safety systems in child care facilities. The firsthand knowledge and experience shared by the families is foundational to the values on which the recommendations were built. It is hoped that the families feel assurance that their experience, input and contributions will result in safer environments for children throughout the province.

The Review Panel also acknowledges the complexity of the child care context in Alberta. In this dynamic environment, one consistent factor amidst change is the dedicated and passionate work of Early Childhood Educators (ECEs) and the many staff and volunteers that work in licensed child care facilities. The Review Panel recognizes the invaluable role of ECEs in ensuring safe, high-quality child care in Alberta. Importantly, children deserve to be protected and treated at the same standards as all Albertans, and ECEs and other staff and volunteers in licensed child care settings should be afforded the same level of recognition, credibility and established safety processes as other professional industries.

The Review Panel thanks the Honourable Danielle Smith, Premier of Alberta, the Honourable Adriana LaGrange, Minister of Health, the Honourable Searle Turton,

Minister of Children and Family Services (CFS) and the Honourable Matt Jones, Minister of Jobs, Economy and Trade for the opportunity to collectively advance food safety in licensed facility-based child care settings. We also extend our thanks to the Government of Alberta Review Panel Secretariat team for their extensive guidance and support throughout this process.

Special Acknowledgement

While the Review Panel's mandate does not encompass a detailed analysis of the clinical response to the 2023 STEC outbreak, it is important to acknowledge and commend the exceptional efforts of the physicians, nurses and other health care providers and staff at the Alberta Children's Hospital, Peter Lougheed Centre, South Health Campus and Alberta Precision Laboratories Public Health Laboratory (ProvLab).

Even before the outbreak was officially identified, Alberta Children's Hospital staff and health care providers acted swiftly to assist and treat affected children and families presenting at their facility. Drawing upon their clinical expertise and experience, medical staff promptly addressed the specific patterns of clinical symptoms in children coming to the emergency department or being admitted, which suggested serious *E. coli* infections. In addition, the Review Panel recognizes the outstanding efforts of Alberta Precision Laboratories in providing laboratory support to ensure that samples were analyzed appropriately and in a timely manner. This combined rapid response and professionalism prevented more severe health outcomes.

Their unwavering commitment to leading edge patient care and responsive, compassionate and decisive action is truly remarkable.

MESSAGE FROM THE CHAIR

The Food Safety and Licensed Facility-Based Child Care Review Panel was directed to review the events and response surrounding the 2023 *Escherichia coli* outbreak in Calgary, Alberta. Our mandate was to provide recommendations on how associated legislation, regulations, applicable standards, guidelines or operating procedures could be strengthened to assure food safety for Alberta's children in licensed facility-based child care and the kitchens that serve these programs. In fulfilling our mandate, we endeavored to complete a broad review that included subject matter experts, input from stakeholders, literature and legislative review as well as engagement with affected families. It was gratifying for the Review Panel to see the level of interest from so many people, whose passion is in strengthening food safety in Alberta and who were willing to share their thoughts and ideas with us.

We learned in conducting this review that the food safety expectations of Albertans are not being met. The system responsible for food safety is in need of significant update and reform. Albertans depend on system structures that require those who prepare and serve food in regulated environments to prepare safe food for consumption through the adherence of established and enforceable standards. They further expect that in situations where serious or frequent violations occur, owners or operators are held accountable and penalties are applied where appropriate. They trust that this is occurring everyday, everywhere in Alberta. In reality, the current system of laws and regulations lack clarity or clear mechanisms for enforcement and prosecution for operators who demonstrate indifference towards food safety. As a result, prosecutions under the *Public Health Act* and its regulations for serious food safety infractions are exceptionally rare and, in some years, non-existent. As one of the family members impacted by the *E. coli* outbreak said, "I no longer feel safe that just because a place is regulated that the food will be safe."

What you will see in this report is a series of recommendations that will provide a road map to create a safe and effective food safety system. A system where fostering a culture of food safety is essential, but where serious violations of food safety regulations can result in an immediate citation with a penalty commensurate to the offence and where inspection reports are posted in a conspicuous location for all to see. This will require a

review and alignment of the *Public Health Act* and its regulations to clearly allow for enforcement through the *Provincial Offences Procedure Act*.

The recommendations will also focus on the need to enhance the investigative capacity within public health to ensure that a response to public health outbreaks is with investigators trained in complex investigations and major case management. The immediate collection of evidence and the application of effective investigative strategies in the earliest stages of an investigation greatly increases the likelihood of a successful investigation and prosecution of charges where appropriate. The responsibility for oversight and regulation of food safety in Alberta belongs to a variety of government agencies whose collective efforts are integral to the safe functioning of the system. The recommendations further outline the steps necessary to establish M.O.U.'s to ensure that all provincial agencies responsible for food safety are working together, and sharing information where appropriate and necessary to the safety of Albertans. Not all of the recommendations require changes in legislation. Some recommendations require only changes to processes. These changes can occur more quickly. Maximizing food safety for children in facility-based child care and the kitchens that serve them will require the entire food safety system to operate at optimal levels across a broad range of government entities. This in turn benefits all Albertans.

What happened to so many children and families is heartbreaking. For many, the impacts of this outbreak are still enduring today and will be into the future. In providing these recommendations, the Review Panel feels confident that they reflect the lessons learned and provide a path forward for improved food safety.

As Chair, I sincerely thank Review Panel members Shannon Doram, Leslie Echino, Dr. Jim Kellner, Dr. Lynn McMullen and Tyler Shapka for the commitment of their expertise and wisdom in completing this report. All are recognized experts in their field who selflessly committed their time, invaluable knowledge and insight into researching this report and in formulating these recommendations.

Rick Hanson

Chair, Food Safety and Licensed Facility-Based Child Care Review Panel

FOOD SAFETY AND LICENSED FACILITY-BASED CHILD CARE REVIEW PANEL

Membership

Members of the Review Panel were appointed to provide the perspectives, experiences, expertise and insights of licensed child care providers, licensed food establishments and public health and food safety experts. The expertise of panelists was supported with stakeholder engagement activities, a third-party investigative review, presentations from subject matter experts, jurisdictional scans and literature review. Secretariat and technical support for the Review Panel was provided by the Public and Rural Health Division, Alberta Health. Review Panel members are:

- **Mr. Richard Hanson (Chair)**, former Chief of Police, Calgary Police Services
- **Dr. James Kellner**, Pediatrician and Infectious Diseases Specialist, Alberta Children’s Hospital and Professor, Cumming School of Medicine, University of Calgary
- **Dr. Lynn McMullen**, Professor Emerita (retired), Faculty of Agricultural, Life and Environmental Science, University of Alberta
- **Ms. Leslie Echino**, Owner and Operator, Annabelle’s Kitchen and Bar
- **Mr. Tyler Shapka**, Owner, Hopscotch Child Care Ltd.
- **Ms. Shannon Doram**, President and CEO, YMCA Calgary, Association Services

Mandate

In response to the 2023 Shiga toxin-producing *Escherichia coli* O157:H7 (STEC) outbreak in licensed child care facilities in Calgary, the Government of Alberta established the Food Safety and Licensed Facility-Based Child Care Review Panel (Review Panel).

The Review Panel was mandated to review the events and response surrounding the outbreak and provide recommendations on how associated legislation, regulation, applicable standards, guidelines or operating procedures could be strengthened to assure food safety for Alberta's children in licensed child care facilities.

This included a review of the Ministry of Health's *Public Health Act*, Food Regulation and Institutions Regulation, which establish the oversight for food inspection by Alberta Health Services (AHS), including in licensed child care facilities and in licensed food establishments that supply food for children in those facilities. In addition, it also included a review of the Ministry of Jobs, Economy and Trade's (JET) *Early Learning and Child Care Act* and Early Learning and Child Care Regulation that are associated with child care licensing and inspection processes^{1,a}.

Activity and Outcomes

The Review Panel's activity included:

- Review of the STEC outbreak investigation report prepared by AHS;
- Review of the legislation and inspection protocols other jurisdictions have adopted relative to food safety to assure Alberta Health's and JET's legislation and inspection protocols are reflective of best practices;
- Recommendations on how processes in relation to licensing/permitting, food handling, inspections and inspection violations and investigations could be

^a As of February 16, 2024, the responsibility for child care, including the *Early Learning and Child Care Act* and Regulation, was transferred from the Ministry of Children and Family Services to the Ministry of Jobs, Economy and Trade.

strengthened in licensed child care facilities and shared kitchens supplying those facilities; and

- Recommendations on options to enhance foodborne illness prevention and protection.

The Review Panel has prepared recommendations related to the following outcomes:

1. Opportunities for strengthening the legislation and/or inspection processes that govern food safety in licensed food establishments servicing licensed child care facilities and the child care settings themselves, are identified and include recommendations for implementation.
2. Parents and families have confidence that the food served to their children in licensed child care facilities is produced and prepared under appropriately stringent legislative oversight.

For more information on the Review Panel's Terms of Reference, see [Appendix A](#).

Input from Experts

As part of the Review Panel's commitment to seek knowledge and understanding through a variety of sources, the Review Panel invited several subject matter experts to present. The Review Panel relied heavily on in-depth and specialized knowledge that each expert shared. The information and evidence brought forward was critical for the drafting of the Review Panel's recommendations. Invited experts included Alberta Health, AHS (including AHS Environmental Public Health), Child Care Licensing Officers and managers, food safety experts and an expert in investigations and enforcement.

Further to this, early in the tenure of the Review Panel, it became clear that a third-party investigator would be critical in providing the Review Panel with timely and pertinent information in relation to AHS inspection processes and foodborne illness outbreak investigation protocols. The third-party investigator consulted with AHS experts and AHS public health inspectors and examined AHS' structure and operational policies to understand current protocols for responding to incidents of foodborne illness. The investigator also assessed the collaboration of AHS public health inspectors with

Federal, Provincial and Municipal regulatory bodies and law enforcement agencies during food contamination investigations and analyzed their effectiveness against the legislative and regulatory framework. Further to this, the investigator reviewed the relevant protocols for surveillance, monitoring and reporting concerning high-risk entities in incidents of food contamination to identify potential areas to strengthen and examined benchmark responses to food contamination investigations in health jurisdictions outside of Alberta. The investigator's findings significantly informed the Review Panel's recommendations.

Out of Scope

Throughout the Review Panel's work, numerous concerns and issues were raised by stakeholders and experts. For example, subject matter experts recommended updating the *Employment Standards Act* to ensure employers offer paid sick time for staff involved in the preparation and/or handling of food in licensed child care facilities. Affected families also raised concerns that compassionate payments provided by the Government of Alberta were not commensurate to the financial burden they experienced due to severity of illness requiring hospitalization and disruption to employment.

The Review Panel recognizes that while some of these topics fall beyond its mandate, they are pertinent within the broader context of food safety in facility-based child care settings. It should also be noted that the Review Panel's mandate was specific to licensed child care facilities, and did not include licensed home-based child care, or unlicensed child care in Alberta.

Current State of Alberta's Child Care Sector

On November 14, 2021, Alberta and Canada signed the Canada-Alberta/Canada-wide Early Learning and Child Care Agreement. Alberta developed a Cost Control Framework and For-Profit Expansion Plan (dated January 31, 2023), which outlined further direction and a proposed 'funding formula'. Further work is currently under development, and will be a significant factor in shaping the future of child care to a primarily government funded system. A review of the

proposed funding formula, and/or any impact of the recommendations of the Review Panel on it, were out of scope of the Review Panel's mandate.

Review of Alberta Agriculture and Irrigation Legislation

The Ministry of Agriculture and Irrigation (AGI) is responsible for the policies, legislation, regulations and services necessary for the agriculture and food sector to grow, prosper and diversify. AGI is also responsible for inspiring public confidence in the quality and safety of food and for supporting environmentally sustainable resource management practices. This work is fundamental to food safety, especially as it relates to Alberta's food supply chain. The Review Panel did not include this legislative framework in its review of the outbreak.

Review of the Government of Canada Food Legislation

Health Canada is responsible for establishing standards for the safety and nutritional quality of all foods sold in Canada. The department exercises this mandate under the authority of the *Food and Drugs Act* and pursues its regulatory mandate under the Food and Drug Regulations. The legislation oversees specific food safety requirements such as food additives, process controls, allergens, composition and labelling requirements. The federal government is also responsible for the *Safe Food for Canadians Act* and Regulations which outlines food hygiene requirements for businesses that are exporting food outside of provincial borders. Federal legislation was not included in the scope of the Review Panel's mandate.

THE 2023 STEC OUTBREAK AND AHS RESPONSE

On September 4, 2023, AHS declared a Shiga toxin-producing *E. coli* strain (STEC) outbreak connected to 11 daycare locations in the AHS Calgary Zone that received food from a common kitchen. As the outbreak progressed, six additional locations were identified during the investigation. This is the largest STEC outbreak associated with children in the province's history and resulted in a total of 448 cases, 359 of which were laboratory confirmed and 89 of which were deemed probable. Almost all the infections were in children (287 confirmed cases and 72 probable cases in those under the age of 18). There were no deaths; however, 38 children and one adult were hospitalized with severe illness. Ongoing monitoring and care is being provided to children with persistent health issues related to the outbreak. This care will be provided indefinitely, as long as required. In addition, a larger number of children with different degrees of infection, as well as a group of uninfected children, are being followed for two years as part of an internationally funded research project to better understand the longer-term health effects of STEC infections, comparing infected and uninfected children.

AHS officially declared the outbreak over on October 24, 2023. The outbreak lasted a total of 51 days^b.

AHS subsequently prepared an investigation report of the events surrounding the outbreak and AHS' response to the outbreak, which the Review Panel reviewed in detail. A high-level summary of the outbreak response is as follows.

^b The conditions to declare that the outbreak was over were that no new cases were identified within two incubation periods (20 days) of the last lab-confirmed case (September 27, 2023) and that all child care facility closure orders had been lifted (last one lifted on October 24, 2023).

Outbreaks in Child Care Settings

A disease outbreak is the occurrence of disease cases (in this case, STEC) more than the normal expectancy in the population². Under section 26 of the *Public Health Act*, a person in charge of an institution, such as a licensed child care facility, must immediately notify a medical officer of health if they know or have reason to suspect the existence of a communicable disease in epidemic form, another illness or health condition occurring at an unusually high rate, or a communicable disease or another illness or health condition that is caused by a nuisance or other threat to public health.

Gastrointestinal (GI) outbreaks have been documented in child care settings and there are well-established health and safety protocols developed by AHS to assist providers of child care facilities with managing and reporting illnesses.

Specifically, AHS has developed a *Guide for Outbreak Prevention and Control in Child Care Facilities*³ that provides detailed information and instructions for both facility-based and home-based child care providers in the event of an outbreak, including parameters for identifying and reporting possible GI outbreaks.

Initial Outbreak and Response

On Wednesday, August 30, 2023, the AHS Calgary Zone Medical Officer of Health (MOH) was informed of four children with GI illness at Fueling Brains New Brighton. There was no report of bloody diarrhea. A GI outbreak was declared at this facility by the AHS Calgary Zone MOH. GI illness is common in daycares and most often associated with norovirus infection which generally presents symptoms of nausea, diarrhea, cramps and vomiting within 12 hours and subsiding within two to three days.

On Thursday, August 31, 2023, the AHS Calgary Zone MOH was informed of nine children with GI illness at Fueling Brains West 85th. There was no report of bloody diarrhea. A GI outbreak at this facility was declared by the MOH.

On Saturday, September 2, 2023, the AHS Calgary Zone MOH was informed that three cases had been admitted to hospital with symptoms of bloody diarrhea. AHS

Environmental Public Health began an investigation given the unusual admission of three children to hospital with bloody diarrhea, the serious health implications of blood in the stool, hospital staff not attributing symptoms to other possible diseases and the children reported attending a Fueling Brains daycare.

Child Care Facility Closures

On Sunday, September 3, 2023, Alberta Precision Laboratories (ProvLab) provided confirmation that hospital cases contained Shiga toxin-producing *Escherichia coli* O157:H7 (STEC), an enteric pathogen sourced from food. The AHS Environmental Public Health team database indicated there were six Fueling Brains child care facilities that received food from the centralized kitchen, "Fueling Minds", as well as five other child care locations.

The AHS Calgary Zone MOH issued a letter on September 3, 2023, to families with children attending three impacted child care facilities (provided to the facilities to forward to all families) advising of the outbreak and to monitor for GI symptoms. On Monday, September 4, 2023, all 11 sites were issued closure orders until further notice by AHS Environmental Public Health:

- Fueling Brains Braeside
- Fueling Brains New Brighton*
- Fueling Brains Bridgeland
- Fueling Brains West 85th*
- Fueling Brains Centennial*
- Fueling Brains McKnight*
- Braineer Academy
- Almond Branch School
- Vik Academy in Okotoks*
- Kidz Space
- Little Oak Early Education (formerly Mangrove)

* Sites with lab confirmed cases as of September 3, 2023

On Monday, September 4, 2023, Children and Family Services licensing officers were in contact with the child care providers during the closure. The shared kitchen was also issued a Closure Order on this date. AHS Communications issued a health advisory to the public indicating that an *E. coli* outbreak had been declared at 11 daycare locations. Families with children that attended the identified daycares and were experiencing GI were advised to seek medical care or see their family physician. Throughout the week, AHS public health inspectors worked with child care providers from the affected facilities to ensure the facilities were cleaned and sanitized as per AHS requirements.

Additionally, on Wednesday, September 6, 2023, AHS launched a public facing website with information on the outbreak. The Calgary Zone MOH also participated in a number of AHS media availabilities to answer questions about the outbreak.

On Monday, September 11, 2023, four child care facilities re-opened, and the Closure Orders for the remaining child care facilities were rescinded on September 11 and 12, 2023.

An additional six child care facilities not directly linked to the shared kitchen were issued Closure Orders and/or Exclusion Orders by AHS, due to exposures to confirmed cases or secondary transmission. Either these new cases were in contact with children from the original facilities or children from the original facilities were in contact with the new facilities. AHS public health inspectors again worked with child care providers to ensure precautionary measures were taken and the facilities were cleaned and sanitized as per AHS requirements.

Source Investigation and Shared Kitchen Closure

AHS issued a Closure Order to the shared kitchen on Monday, September 4, 2023, and AHS public health inspectors entered the facility to conduct a demand inspection on Tuesday, September 5, 2023, to begin the investigation into the source of the outbreak. Three critical violations were identified during the inspection relating to food handling, sanitization and pest control. Two non-critical violations were also identified related to an odour and storage of utensils.

Food samples were collected, tested and analysed from several of the child care facilities that had been issued Closure Orders at the start of the outbreak. Several child care facilities did not have left over food available for testing as prepared food is discarded at the end of each day. It quickly became apparent that the source of the outbreak was likely distributed from the shared kitchen. AHS Environmental Public Health reviewed the food histories of more than 1,150 children and 250 daycare staff, tested numerous food items and beverages, and examined food preparation and transportation protocols at the shared kitchen. Based on the investigation and epidemiological data, it is believed that the beef meatloaf and vegan loaf meals served for lunch on August 29, 2023, were the most likely sources of infection.

The shared kitchen used by the affected child care facilities had been inspected by an AHS public health inspector four times in 2023 before the outbreak:

- January 25, 2023: the AHS public health inspector identified four non-critical and six critical violations.
- January 26, 2023: the AHS public health inspector returned and cleared all but two violations (one critical and one non-critical).
- February 23, 2023: the AHS public health inspector identified two critical and two non-critical violations. Both critical violations were corrected during the inspection.
- April 26, 2023: the AHS public health inspector identified two violations (one critical and one non-critical). Both violations were corrected immediately through collaboration between AHS and the operator.

After reinspecting the shared kitchen on November 15, 2023, AHS rescinded the Closure Order on November 17, 2023, as all violations were corrected. As part of the reopening agreement, the kitchen was allowed to operate in a limited capacity without the ability to prepare full meals or transport food but allowed to receive and serve meals from an AHS-approved third-party contractor.

As of April 2024, AHS identified 69 facility-based child care centres in Alberta that access foods from a shared kitchen. This data was obtained through a survey of 2171 child care operators, of which 1149 responded. As site inspections are conducted, AHS

public health inspectors will continue to assess each child care facility to determine whether foods are supplied by a shared kitchen.

Child Care Program Exclusions

To ensure the safety of others and to reduce transmission, young children (those not five years or older by December 31, 2023) and staff from facilities and/or classrooms that were issued Closure Orders and had no gastrointestinal symptoms had to test negative for *E. coli* before they could attend any child care facility. Children who attended the affected facilities and had symptoms had to provide at least one negative stool sample 48 hours after symptom resolution. Diapered children had to provide two stool samples, 24 hours apart.

AHS only provided those children and staff with clearance to return to licensed child care once they reviewed the negative test result. AHS Health Link or Environmental Public Health directly informed families and staff of their completed lab results. Child care providers across Calgary were notified of the need to check for AHS approval letters from children and staff before being allowed back into their facilities.

Clinical Care

Shortly after the outbreak was declared, Alberta Children's Hospital established a dedicated clinic to monitor symptomatic patients following their initial emergency department visit, as well as those who were discharged from hospital.

"These kids will carry this (the long-term health impacts) for life. The adults creating these changes need to ensure they are permanent and long lasting to prevent this from happening again."

- Affected family member

The Impact on Children and Families

The Review Panel learned the impact of the outbreak and response on families during its engagement activities. Prior to the STEC outbreak, families believed they could trust

the safety of food being provided to their children. They trusted that appropriate, standardized food handling and preparation processes were in place and that inspection and enforcement protocols would protect them and their children if the food establishment was not following those processes. As time progressed and the families discovered the history and details of previous facility inspections and non-compliance to standard food preparation and safety protocols by food handlers, as well as lack of safe food transportation practices, families' confidence levels dropped dramatically.

The online and in-person discussions with affected families were impassioned and at times, emotional. Even though eight months had passed since the outbreak, families were markedly upset by the series of events that led to the outbreak.

"There was a moment where I felt I could lose a child from this. If I had known that was the risk, maybe I would have thought about it or asked more questions."

- Affected family member

Affected parents and guardians discussed the many ways their lives were impacted by the outbreak including: financial impacts from being off work while their child was sick, in some cases changing employment so their child no longer requires child care; concern about the long-term impacts of their child's illness; post-traumatic stress for both the child and family members; and anxiety about finding alternate child care options or trying to manage or minimize the risks for those with children remaining in affected child care facilities.

"My daughter (only) eats the vegetarian offering now... after all this, I cannot imagine I will ever be comfortable having her eat a ground meat product made in a commercial kitchen."

- Affected family member

More information on the Review Panel's engagement goals, approach, activities and outcomes can be found in **Appendix B**.

RECOMMENDATIONS

Guiding Principles

The Review Panel's deliberation was framed around three guiding principles, which serve as the foundation for all the recommendations put forward:



Trust: The loss of trust in the systems and processes to safeguard food safety in facility-based child care settings in Alberta is recognized and can only be restored through meaningful and sustainable changes.



Accountability: A secure and reliable food safety culture in licensed child care facilities and food establishments that service these facilities requires a comprehensive structure of accountability at the system, facility and individual levels.



Keeping Children and Families at the Centre: The affected children and families have been, and continue to be, significantly impacted by this outbreak. While children are inherently strong, capable and resilient individuals, they depend on others to ensure their safety and healthy development. The health and wellbeing of children and their families must be at the centre of food safety in child care facilities and reflected in the respective legislation, regulations, policies and practices.

Findings and Recommendations

After a review of extensive data, reports and personal testimonies, the Review Panel has crafted a set of strategic recommendations organized into three thematic areas. These recommendations aim to enhance the food safety systems within licensed child care facilities and the food establishments that supply food for children in those facilities, thereby safeguarding against future foodborne illness outbreaks. This structured approach is designed to rebuild the trust that families place in the food served in licensed child care facilities, create a structure of accountability at all levels, and refocus

the system to ensure that healthy outcomes for children and families remain at the heart of all activities.

The recommendations serve as a comprehensive roadmap for reforming legislation, regulations, policies and inspection practices to foster an enhanced framework where food safety is paramount. The Review Panel has distilled its findings into **12 main recommendations and 27 sub-recommendations**. Each theme and corresponding recommendation not only address specific challenges, but together will assist in re-establishing confidence that the food served to children in licensed child care facilities, where applicable, is procured, prepared and served under appropriately stringent legislative oversight.

Themes:

- A. Fostering a culture of food safety that supports high quality, safe and healthy learning environments for children.**
- B. Public policy, legislation and inspection systems for food safety.**
- C. System alignment and integration.**

The STEC outbreak that occurred across multiple child care facilities in 2023 was significant and will have lasting impacts for the affected children and their families. Given the magnitude and population affected by this outbreak, the fact there were zero fatalities is inconsistent with predicted clinical outcomes. Although devastating and unacceptable, these events also highlight the best of the front-line health care system. In this case, it was the dedicated and experienced health care staff at the Alberta Children's Hospital, who took immediate action to treat children that prevented more serious outcomes from occurring. This specialized knowledge of STEC is unique to the Alberta Children's Hospital and is not present in all acute care facilities.

Alberta has a complex legislative framework across the food continuum that aims to protect and promote food safety in licensed child care facilities. Multiple food safety partners – provincially and federally, in the private and public sectors, from “farm to fork” – have accountability and/or responsibility for ensuring food safety in licensed child care facilities and for responding in a timely manner to foodborne illness outbreaks. However, as evident from this outbreak event, there are gaps within and across the multiple layers of protection, which has led to significant harm⁴. The Review Panel’s findings and recommendations in the following sections focus on strengthening the specific legislation, regulations and inspection processes within the purview of the Ministry of Health and the Ministry of Jobs, Economy and Trade.

Specifically, the Review Panel’s findings note that the importance of upstream, preventative approaches and commitment to a strong food safety culture are paramount to preventing another devastating outbreak. The findings also demonstrate the importance of oversight and accountability mechanisms, ensuring that Alberta has the capacity and expertise to conduct frequent and thorough inspections to protect health and safety, and, when food regulations are willfully and repeatedly disregarded, providers and/or individuals are held accountable. The complex ecosystem that supports food safety in licensed child care facilities needs to be better integrated and aligned to not only clarify expectations around food safety, but to also allow for a timely and urgent response to foodborne illness outbreaks. Detailed findings are presented in the following pages.

Resourcing

Many of the Review Panel’s recommendations will require shifts in current food safety practices, including inspection processes. Given the current financial and economic environment, including rising costs and the shift in the funding model for child care, as well as the expected increase in demand for child care services, the Review Panel recommends that the Government of Alberta consider resourcing some of the recommendations to support their adoption and reduce financial barriers for those directly impacted including, but not limited to, licensed child care operators, licensed food establishments and AHS.

Advising on Implementation

It is recommended that the Government of Alberta establish an external advisory panel to support the implementation of the Review Panel's recommendations to ensure the intent of each recommendation is understood and maintained.

Theme A: Fostering a Culture of Food Safety that Supports High Quality, Safe and Healthy Learning Environments for Children

Human behavior plays a pivotal role in establishing and maintaining a robust food safety culture. The choices and actions of individuals involved in all stages of the food supply chain, from “farm to fork,” directly impact the safety of food and are pivotal in preventing a foodborne illness outbreak. The Review Panel’s recommendations in this section emphasize the need to cultivate and maintain a positive food safety culture within licensed child care facilities and kitchens serving these facilities - a culture that puts children’s safety and well-being at the core of all activities and in which businesses and individuals uphold their roles and responsibilities for food safety. The recommendations also stress the importance of requiring proper food safety training, along with ensuring that policies and resources are in place at the facility level to prevent and guard against foodborne illness outbreaks.

A.1. Promote and enable a food safety culture in licensed child care facilities and food establishments that service licensed child care facilities.

- A.1.1. Incorporate the requirements for food safety culture into food safety legislation.
- A.1.2. Require all establishments with a food handling permit and all licensed child care facilities to establish a written commitment that it will maintain a food safety culture.
- A.1.3. Develop indicators to measure food safety culture, provide training to AHS public health inspectors on how to identify food safety culture and increase the inspection frequency of facilities that do not demonstrate food safety culture and practices.
- A.1.4. Develop a grading system for food inspections of licensed food establishments, similar to other jurisdictions. Require food establishments to visibly post their food inspection grade in a conspicuous place.
- A.1.5. Require all licensed child care providers to post their most recent public health inspection reports in a conspicuous place.
- A.1.6. Provide resources, tools and templates to child care operators to implement an internal inspection or audit system to help establish a food safety culture.
- A.1.7. Enhance awareness of reporting mechanisms for parents and staff to raise concerns regarding food safety and report unsafe food handling practices within licensed child care facilities and food establishments serving these facilities, including anonymous methods of reporting. Licensed child care facilities and food establishments should display contact numbers to report concerns.

In July 2020, the United States Food and Drug Administration (FDA) introduced the New Era of Smarter Food Safety blueprint, which details a ten-year strategy for building a safer food system. One key aspect of this initiative is to support and promote food safety culture. To advance this effort, the FDA collaborated with Westat, Inc. to conduct a systematic literature review that synthesized published research to address three main questions: 1) What is food safety culture? 2) How is food safety culture developed and maintained? 3) How is food safety culture assessed?⁵ According to the literature reviewed the most frequently cited definition was from a 2010 article written by Griffith, Livesey and Clayton. The authors defined food safety culture as:

“the aggregation of the prevailing, relatively constant, learned, shared attitudes, values and beliefs contributing to the hygiene behaviors used within a particular food handling environment”⁶

The Review Panel also reviewed other definitions of food safety culture. According to the Global Food Safety Initiative, it is defined as:

“shared values, beliefs and norms that influence the mindset and behavior toward food safety within and throughout an organization.”⁷

Similarly, FoodDrinkEurope defines food safety culture as:

“the shared values, beliefs, attitudes, behaviors and practices within an organization that contribute to establishing and maintaining a safe food environment.”⁸

Currently, food safety culture is not explicitly mentioned or enforced within Alberta’s Food Regulation, leaving establishments without a clear understanding or expectations around this concept. This can lead to varied interpretations and inconsistencies in implementation, or no effort placed on establishing a good food safety culture. The inclusion of food safety culture in Alberta legislation would align with global standards⁹ and conform with the higher duty of care expected by stakeholders in and around licensed child care facilities.

In September 2020, the Codex Alimentarius Commission (CAC) adopted a revision of its global standard on General Principles of Food Hygiene (CXC 1-1969)⁹. The revised CXC 1-1969 introduces the concept of food safety culture as a general principle. Inclusion of food safety culture into the Codex Alimentarius standards demonstrates that international experts consider this to be of equal importance in food safety as the other components. The CAC recognizes both food safety training and the principle of food safety culture as fundamental components to any food safety system. Cultivating a positive food safety culture requires an awareness of the importance of food safety and hygiene by all individuals. In response, the European Union (EU) Commission amended Regulation 2021/382¹⁰ to include food safety culture as a general principle and global standard requiring food operators in the EU to establish, maintain and document an appropriate food safety culture.

In Alberta, there are currently no specific indicators or inspection categories to assess the culture of food safety in food establishments. This prevents AHS public health inspectors from accurately gauging compliance or identifying facilities that need additional support to improve their food safety culture. Without measurable standards, it is challenging to hold establishments accountable for fostering a culture that prioritizes food safety and ensure the effective implementation of related practices. International jurisdictions^{8,11} have developed indicators for measuring food safety culture, which can serve as examples throughout the development process.

A strong food safety culture is essential in maintaining public trust in the system, particularly in environments where children are involved. Child care providers, under section 9(b) of the *Early Learning and Child Care Act*, are required to post their most recent child care licensing inspection report in a clearly visible and prominent place on the premises where the licensed child care program is being provided. However, there is no such requirement for environmental public health inspection reports, including food inspection reports. Making environmental public health inspection reports, issued by the AHS public health inspectors, clearly visible to families and staff will play a crucial role in fostering transparency and accountability, ensuring that everyone understands

the importance of food safety practices. In addition, it will support families in making an informed decision when choosing a child care facility.

“Put the inspection ratings right on the door – like they do in restaurants in the US... and if they found something, the daycare should explain right there what they are going to do to fix it and when they are going to fix it.”

- Affected family member

External audits and inspections are effective in monitoring and measuring compliance with food safety regulations at a particular moment in time. However, relying solely on external audits and inspections can hinder the consistent maintenance of food safety standards, as these assessments occur periodically. By conducting regular internal audits, facilities can cultivate a culture where compliance transcends mere adherence to external mandates and becomes a proactive commitment to safety, because it is inherently the right and responsible thing to do.

The Review Panel also believes that reporting food safety concerns should be normalized and seen as a necessary step in protecting public health. Despite the existence of reporting mechanisms, awareness among families and staff about their use remains limited. The mechanisms for anonymous reporting, such as the *Child Care Connect* hotline and contacting AHS Environmental Public Health, should be more accessible and visibly displayed to encourage the reporting of food safety concerns. This is particularly crucial in child care facilities and food establishments that service these facilities. To reinforce public trust in the system, it is critical to investigate, document and follow up on concerns and complaints reported within the food establishments and licensed child care facilities in a reasonable timeframe.

Intent

Establishing clear regulatory standards for food safety culture would provide a unified framework for child care facilities and food establishments to follow, ensuring a consistent understanding and approach to implementation and measurement across the province. A system that emphasizes reporting creates a supportive environment

where individuals feel empowered to speak up about potential issues without fear of repercussions, strengthening the overall safety framework.

“As a provider, we had no knowledge or no way to know what kind of standard we need for food handling for daycares.”

- Child care provider

The intent of recommendation A.1.2. is to ensure that licensed child care facilities and food establishments demonstrate accountability by committing to fostering a positive food safety culture. This would include obligations such as a pledge to actively monitor Health Canada’s and the Canadian Food Inspection Agency’s food recalls, advisories and safety alerts. Establishing these obligations within a written commitment would compel facilities to implement structured processes to meet these obligations, such as keeping up to date with the latest food safety information. This will enable them to respond promptly to potential risks, enhancing their ability to protect the health of the children and individuals they serve.

In addition, licensed child care facilities and food establishments need to implement their own internal audit and monitoring systems to foster a self-regulating environment that prioritizes food safety. Internal audits would enable facilities to monitor their practices regularly, identify and address issues proactively and maintain high standards of food safety between external inspections. This would be in addition to, and not in replacement of, the current external inspection process.

A.2. Expand required evidence-based food safety education by:

- Requiring food safety certification every three years (under section 31 of the Food Regulation) for anyone who cooks or prepares food within any establishment with a food handling permit or within any licensed child care facility; and
- Requiring an annual simplified food safety training course for anyone who serves food to children in a licensed child care facility.

A.2.1. Require a 'food safety culture' component within food safety certification and training courses approved under section 31 of the Food Regulation, so that the meaning and importance of food safety culture is evident across the system.

A.2.2. Require that all staff and volunteers of licensed child care facilities, as part of their annual training course, sign a statement of commitment to a positive food safety culture.

Section 31 of Alberta's Food Regulation currently requires at least one member of the management or supervisory staff to hold a food handler certificate and be present at all times when six or more food handlers are on site of a commercial food establishment. When five or fewer food handlers are present, only one individual who has care or control of the establishment, who may not always be on-site, is required to hold a food handler certificate. The Review Panel believes this level of leniency in food certification requirements presents a considerable risk, potentially leading to lapses in safe food handling during daily operations. Alberta is the only province in Canada that specifies food handler certification requirements depending on the number of workers present. Other provinces and territories that require food handler training and/or

certification as part of their food safety legislation set parameters where at least one person with food handler training and/or certification must be on-site during all hours of operation regardless of the number of workers present.

Furthermore, Alberta's current legislation does not mandate periodic food safety certification renewal, risking reliance on outdated practices and knowledge among food handlers. Section 6.3.4 of Alberta Health's Food Retail and Foodservices Code recommends that certification should be valid for five years after completion, and that providers and food handlers should take a refresher course after this period. However, this is not a requirement. Alberta's food safety regulatory framework should be enhanced to include requirements for continued or expired food safety certification as continuous education is critical to maintaining and updating staff on the latest risks, standards and practices and therefore helps to reduce the likelihood of foodborne illness outbreaks. As an example, Prince Edward Island stipulates requirements in their food safety legislation for continued food safety education, requiring additional food hygiene training at least once in a five-year period following initial fulfillment.

Additionally, food safety culture is not currently integrated into certification courses under Section 31 of Alberta Health's Food Regulation. Most courses focus primarily on operational aspects such as facility maintenance and sanitation. However, behavioral and cultural components are just as vital to food safety. Providing information and training to anyone involved in food preparation and handling would assist in nurturing a comprehensive culture of food safety. The inclusion of food safety culture into certification and training courses would also demonstrate that it is of equal importance to other food safety training components.

Intent

This recommendation is designed to enhance food safety certification and training across all levels of personnel involved in food handling within licensed child care facilities and other food establishments. By introducing a two-tiered approach to education, this initiative mandates comprehensive food safety certification under section 31 of the Food Regulation for those directly cooking and preparing food, and

a new, basic training requirement for staff who only serve food^c, akin to the ProServe certification from Alberta Gaming, Liquor and Cannabis.

“Why does every person who delivers a glass of wine need ProServe, but you can have an entire kitchen of people who haven’t had training?”

- Affected family member

The recommendation specifies that all individuals responsible for cooking or preparing food must maintain current certification, with required renewals every three years. Additionally, individuals who serve^d but do not prepare food should undergo annual simplified food safety training to ensure they understand the basics of food safety relevant to their roles.

This recommendation also emphasizes the importance of providing training in an accessible manner. It aims to ensure that all training materials are provided in formats that are most suitable and accessible for all participants, such as language and adaptations for those with visual impairments. The goal is to enhance the comprehension and usability of the training, so that every participant fully understands and can apply the food safety principles effectively in their specific roles.

To support these requirements, the recommendation also seeks to embed food safety culture into the certification and training framework to clearly outline the obligations of different parties such as employers, supervisors and employees. This alignment will help ensure that training is impactful and relevant to each individual's role within the facility.

Through this structured approach to food safety certification and training, the recommendation aims to foster shared accountability for food safety empowering every individual involved - from kitchen staff to servers - to uphold the highest standards of food safety, ultimately safeguarding the health and well-being of children in child care.

^c Definition of “serve” includes dispense, supply, feed, sell, distribute, or provide in any manner. See the Alberta Food Regulation, section 1(1)(pp).

^d Ibid.

A.3. The Government of Alberta and/or Alberta Health Services develop additional resources such as, but not limited to, information sheets, templates (e.g., for internal auditing), checklists and logs to make practicing food safety culture easier and more accessible to operators of licensed food establishments and child care facilities.

Despite the existence of food safety resources on Alberta Health and AHS websites, they are not comprehensive. A unified approach to delivering essential information, guidelines and tools to establishments is needed to support individuals and businesses to access information, comply with regulatory requirements and promote best practices as it relates to food safety.

Intent

The goal of this recommendation is the establishment of a single, consolidated resource hub that provides clear guidelines, templates and best practices for food safety. This hub would support food establishments, child care facilities and child care providers to easily access up-to-date information and resources tailored to their needs, helping them implement and maintain a strong food safety culture. These resources should align with the updated requirements under the Food Regulation and Food Retail and Foodservices Code to support compliance (refer to recommendation B1). Examples of hub materials could include preventive control plan templates, internal auditing templates, temperature logs, food safety and hygiene information sheets, staff training resources and links that direct users to other information pages such as Health Canada's food recalls and alerts webpage. Ideally, these resources would be provided in an electronic format that is easy to access and use, making it easy to implement and maintain good food safety practices.

For example, British Columbia has a *Food Safety Resources* webpage through their FOODSAFE program that serves as a repository for food safety information for individuals and business operators¹². FOODSAFE is the province's recognized food safety training program, under section 10 of the Food Premises Regulation¹³. The webpage contains printable PDF templates, checklists and charts that can be used as practical tools and corresponds with FOODSAFE training. It also provides links to access information provided by other food safety partners.

"There are safety checklists for pilots... for surgeons... to make sure mistakes aren't made. There needs to be checklists for food safety too."

- Affected family member

A.4. Require licensed child care providers to develop a policy on 'outside food,' such as food brought into these facilities by parents, as part of their Early Learning and Child Care Program Plan. Policies on 'outside food' should allow for flexibility across individual facilities. It is not recommended that such policies are strictly prescribed in government legislation.

The Review Panel has observed that there is no uniform policy on 'outside food' brought into licensed child care facilities, leading to varied practices across different locations. Current regulations do not mandate child care facilities to have specific policies regarding outside food as part of their Early Learning and Child Care Program Plan, which leads to inconsistency and potential lapse in managing these risks effectively.

Intent

The intent of this recommendation is to mandate that all licensed child care facilities include policies on 'outside food' in their Early Learning and Child Care Program Plan. This requirement aims to ensure that each facility considers the risks associated with food brought in by parents or guardians and establishes appropriate management strategies that reflect their unique operational settings. By formalizing these policies within the Early Learning and Child Care Program Plan, facilities will not only address the risks associated with outside food but also maintain flexibility in their implementation, allowing them to tailor their food management practices to best suit their specific needs and circumstances. This approach empowers facilities to proactively manage potential food safety issues while still complying with broader regulatory requirements and maintaining high standards of child care.

Theme B: Public Policy, Legislation and Effective Inspection Systems for Food Safety

Alberta Health’s legislative and inspection framework must be strengthened to provide consistent and thorough oversight of food safety in licensed child care facilities and food establishments. The resources, tools and training available to AHS public health inspectors who enforce food safety under the Food Regulation should be expanded, and child care providers must be held accountable for adhering to food safety requirements.

The following recommendations provide opportunities to directly strengthen Alberta Health’s legislation and public health inspection systems to improve food safety in licensed child care settings, including increasing the frequency and quality of AHS public health inspections for establishments that prepare or provide food to children. These recommendations also seek to increase accountability among food establishments and child care providers by expanding the enforcement options available to AHS public health inspectors for those who demonstrate serious, purposeful or repeated non-compliance with food safety requirements.

B.1. Review the Food Retail and Foodservices Code for high-risk and key areas of food safety and revise, as needed, to ensure that all applicable food service establishments must (not should) comply with these requirements. Examples include maintaining records of sanitizer concentrations, end-point cooking temperatures and storage temperatures of high-risk foods, in fridges and freezers.

Alberta Health's Food Retail and Foodservices Code ('Code') and the Food Regulation are intended to be used together to set the minimum requirements for safe food handling in AHS permitted food establishments. Together, the Food Regulation and the Code should provide clear, enforceable guidelines for safe food handling. However, many provisions in the Code are recommendations or best practices rather than mandatory requirements (denoted as "should" instead of "must" or "shall"), complicating enforcement for AHS public health inspectors. For instance, there is no requirement for food service operators to monitor and record temperatures, which is a crucial aspect of food safety. Clear, enforceable requirements are needed to ensure compliance across all food establishments.

Intent

The Review Panel recommends that the Code be reviewed and modernized to enhance food safety standards and support enforcement of these standards. This involves revising sections that are currently worded as recommendations and making them mandatory to ensure consistency in compliance across all food establishments. By setting clear, enforceable standards for critical areas like temperature monitoring and sanitation records, the recommendation aims to eliminate ambiguities that hinder enforcement, thereby empowering AHS public health inspectors to effectively regulate

the industry. Strengthening these requirements will enhance food safety across the province, protecting the health of Albertans and reducing the risk of foodborne illness outbreaks.

B.2. Develop clear and formalized expectations and measurable outcomes for Alberta Health Services' public health inspections. This includes risk assessment and categorization methodologies, monitoring inspection frequencies and follow-up of outstanding violations.

- B.2.1. Require a higher frequency of inspections and require a rapid response to food safety concerns in all licensed child care facilities and kitchens serving those facilities (including any associated permitted food preparation areas).
- B.2.2. Ensure that staffing levels are adequate to meet these expectations.

AHS has developed internal standards of practice for establishing risk profiles for facilities, which in turn determine inspection frequencies and follow-up requirements. A risk assessment model is used to determine the frequency of inspections, where facilities are ranked based on several parameters. Facilities can be ranked as high-risk, medium-risk or low-risk. Currently, AHS' target is to complete inspections annually for facilities that rank as high-risk or medium-risk. These practices are operational and not formally approved or monitored by Alberta Health.

The absence of formal expectations agreed upon by both Alberta Health and AHS on inspection practices and frequencies makes it challenging for Alberta Health to provide adequate oversight of the process. Establishing formalized expectations for AHS' inspection practices, with alignment between AHS and Alberta Health, will help AHS

public health inspectors conduct thorough and consistent assessments, particularly in settings like child care facilities where frequent inspections and rapid responses to concerns are vital.

AHS currently lacks the resources needed to conduct sufficient public health inspections to ensure that it can promptly identify and address non-compliance with food safety legislation. AHS' public health inspections are the main tool by which compliance with Alberta Health's food safety regulations are monitored and enforced. These inspections provide opportunities for preventative actions and reactionary enforcement measures.

However, due to limited resources, AHS does not have the capacity to provide adequate inspection coverage. AHS estimates that 34,000 monitoring inspections should be completed annually to meet current frequency targets but given their current capacity it is estimated that only 28,000 inspections (82 per cent) can be completed within the yearly timeframe[°]. The inability to meet inspection frequency targets appears to be a long-standing issue, as the 2005-2006 Annual Report of the Auditor General of Alberta noted that the food safety regulators at the time needed to improve the timeliness of monitoring inspections and follow-up of critical violations¹⁴. In addition, with an increase in the demand for licensed child care services, the Review Panel anticipates a correlated increase in demand for AHS public health inspections of these facilities.

Intent

The intent of the Review Panel is to establish clear expectations for public health inspections conducted by AHS public health inspectors through the development of an inspection framework between Alberta Health and AHS that formalizes risk assessment methodologies, inspection frequencies and follow-up procedures for violations. This recommendation seeks to create a consistent framework that upholds

[°] Note: The numbers provided reflect AHS routine monitoring inspections only and do not include other types of inspections, such as initial/approval inspections, demand inspections, or focused re-inspections.

the principles of administrative fairness, while addressing food safety concerns in child care facilities and kitchens serving these facilities. This collaborative approach will provide AHS public health inspectors with clear guidance and align with Alberta Health's expectations, ultimately improving compliance and fostering a fair and effective food safety system.

To enhance the effectiveness of AHS' public health inspections, Recommendation B.2.1 proposes a significant increase in the frequency and quality of inspections in licensed child care facilities and kitchens serving these facilities and mandates a swift response to food safety concerns. Given the potential for severe consequences due to lapses in food safety, enhanced vigilance is essential.

This initiative is in line with the Auditor General of Alberta's 2005-2006 Annual Report¹⁴, which advocated for risk-based inspection frequency targets to maintain food safety across various establishments. Specifically, the Auditor General's report recommended inspecting low-risk establishments at least once a year, medium-risk twice a year, and high-risk establishments three times a year, to significantly reduce food safety risks.

The implementation of this recommendation should focus on revising policy and operational documents, rather than changing legislation, to allow for updates and adjustments as necessary. This approach empowers Alberta Health to maintain effective strategic oversight, requiring that established risk assessments, inspection protocols and follow-up actions are consistently enforced by AHS. This will support a more robust, responsive public health inspection system.

Recommendation B2.2 speaks to the need for AHS to have adequate staffing levels to conduct public health inspections, as per an agreed upon inspection framework. Strengthening Alberta's public health inspection capacity will enable more frequent and, if other recommendations of the Review Panel are implemented, effective inspections. This is particularly important in settings such as child care facilities where proximity to others and under-developed immune systems can place children at greater risk of foodborne illness. Greater oversight by AHS public health inspectors

may increase operators' overall compliance with food safety requirements through enhanced opportunities for AHS public health inspectors to provide education on food safety practices as well as identification and timely follow-up of violations. This recommendation also seeks to ensure that AHS public health inspectors have the necessary support to fulfill their roles effectively. The Review Panel believes that enhancing monitoring and enforcement of food safety requirements and proactively identifying and addressing violations will support the public health and safety of all Albertans.

"We rely on the government to have policies and safeguards in place, to be able to regulate and enforce these things."

- Affected family member

B.3. Ensure the province has the capacity to more effectively respond to public health outbreaks and take more immediate enforcement action on serious offences and repeat violations by establishing public health investigators.

- B.3.1. Establish an investigation team distinct from, but working with, the existing public health inspectors to assume responsibilities for investigating serious violations and foodborne illness outbreaks as directed by the Medical Officer of Health. These investigators must be available outside of normal working hours.
- B.3.2. Members of the investigation team are to have extensive formal training in investigations, evidence gathering, charging standards, court preparation and major case management. Consider designation public health investigators as Peace Officers.
- B.3.3. Amend the *Public Health Act* and associated regulations to allow a more clearly defined path for pursuing violations through to prosecution. This would include using the authorities within the *Provincial Offences Procedure Act* and associated regulation to immediately issue an offence notice (violation ticket) which would have a range of financial penalties, including mandatory court appearance in the cases of more serious violations or chronic offenders.
- B.3.4. Establish Standard Operating Procedures (SOPs) for AHS public health inspectors and public health investigators.
- B.3.5. Ensure AHS has a system to identify, track and prioritize follow up of operators that have a history of non-compliance with food safety requirements or who may present a risk to the health and safety of Albertans.

While there are policies in place to identify and mitigate outbreaks, AHS' current public health inspection system lacks standardized processes or guidelines for transitioning from routine inspections to large-scale foodborne illness outbreak investigations. The absence of well-defined processes and specialized training in foodborne illness outbreak response hampers the ability of the system to respond swiftly and effectively to foodborne illness outbreaks. These processes need to be clearly outlined and responsibilities well-understood, with the necessary resources readily accessible, so that responses to foodborne illness outbreaks can occur in a timely and urgent manner no matter what day the outbreak occurs. Standardized processes and guidelines for AHS public health inspectors and the public health investigators that outline the transition from an inspection into an outbreak investigation will support timely responses. Also, cross-training of AHS public health inspectors in outbreak investigations across AHS zones will support resource readiness to surge in response to future outbreaks.

The contracted third-party investigator found that while there are rigid compliance guidelines for conducting inspections, the interpretation and application of these guidelines are left up to individual AHS public health inspectors. Reflecting on historical data and the Office of the Auditor General's 2005-2006 report, inconsistencies were identified related to inspection and enforcement practices, particularly in the timely follow-up of violations under the *Public Health Act* and lack of escalating enforcement for repeat violations. The findings underscored a systemic concern that few prosecutions and written orders were issued¹⁴. This historical context further emphasizes the necessity to bolster enforcement and investigative competencies. These findings also found a need for improved consistency and enforcement practices across both individual AHS public health inspectors and management¹⁴.

The Review Panel believes that it is essential to enhance the current enforcement framework available to AHS public health inspectors in order to improve compliance with food safety regulations. This framework already includes some compliance tools such as permit suspensions and written orders. However, giving AHS public health inspectors the authority to immediately issue an offence notice (a violation ticket) under

the authority of the *Provincial Offences Procedure Act* and its associated regulation, provides much needed authority to hold offenders accountable when they are disregarding rules and regulations. This would include the options of specified penalties as well as mandatory court appearance for more serious offences or for chronic offenders.

Developing a specialized investigations team within AHS that is distinct from the current inspection team, equipped with specialized skills in outbreak investigations, evidence handling, legal procedures and investigative techniques, is crucial to enhancing Alberta's response to foodborne illness outbreaks. Those investigators must receive extensive training in major case management and may be considered for designation as "Peace Officers" to strengthen their authority. In addition, they must be able to respond 24/7. SOPs will be necessary to guide AHS public health inspectors and public health investigators through consistent outbreak response processes, minimizing errors in evidence gathering and ensuring compliance with legal standards for prosecution.

Allocating in-house expertise for research and data analysis will also strengthen enforcement. Such expertise will enable AHS public health inspectors to identify trends within and across establishments, track non-compliance and inform effective enforcement strategies. Amending legislation to grant AHS public health inspectors additional immediate enforcement options, such as a sliding scale of financial penalties or fines, and successful prosecution of willful, serious and/or repeat food safety offences ensures that food establishments are held responsible and accountable for upholding food safety requirements under the *Public Health Act* and associated regulations.

The Review Panel recognizes that the *Public Health Act* provides significant legislative remedies for violating the Act and the regulations. All operators who serve food need clear communication and information about food safety requirements and non-compliance rectification measures. Improved guidelines will help operators

understand and comply with regulatory standards more effectively, ultimately reducing the risk of violations and financial penalties.

Intent

The goal is to enhance Alberta's public health inspection system by establishing a specialized subset of AHS public health inspectors ("public health investigators") who will possess the authority to issue fines, respond rapidly to foodborne illness outbreaks and address severe health and safety risks. These specialized public health investigators will serve as a support system to AHS public health inspectors, particularly in outbreak response and in cases with repeat non-compliance or significant threats to public health. Empowering this team with enforcement authority, including the ability to directly issue fines, aims to establish a more robust system that prevents repeated offences and holds operators accountable.

The Review Panel does not intend that all AHS public health inspectors are designated as Peace Officers, or that all AHS public health inspectors receive supplementary training for outbreak investigations.

The Review Panel notes that the costs associated with operating a licensed child care facility or food establishment in Alberta are increasing. Changing enforcement practices to issue immediate, and potentially significant, financial penalties may have significant impacts for child care providers. These recommendations are not meant to dissuade an initial education-first approach to non-compliance in appropriate circumstances. However, when violations are critical and reoccurring or purposeful violations are identified, options must be available to conduct a thorough investigation that meets the high standard necessary for prosecution. Successful prosecution of willful, serious and/or repeat food safety offences ensures that food establishments are held responsible and accountable for upholding food safety requirements under the *Public Health Act* and associated regulations.

Recognizing the historically low rates of prosecutions, the proposed amendments to the legislation and the development of specialized investigative teams are intended to

significantly strengthen the prosecutorial capability of AHS public health inspectors. This strategic enhancement is crucial not only for addressing immediate non-compliances but also for upholding long-term public health safety through consistent and effective enforcement actions.

Theme C: System Alignment and Integration

In times of urgency, it is imperative that all relevant partners in food safety clearly understand and agree on their roles and responsibilities, the response protocols and procedures, and communication and information sharing processes. While large-scale outbreaks occur infrequently, attributable in part to a preventive public health system, these protocols and processes must be developed and well-understood before an outbreak event and updated on a regular basis. Communications to child care providers, families and the public must be timely, clear and consistent to eliminate confusion, promote adherence to public health guidelines and prevent further spread of infection.

Legislation, regulations and policies established by the Ministry of Health and the Ministry of Jobs, Economy and Trade (JET) are part of the legal framework for food safety in Alberta's licensed child care facilities. Licensing officers within JET and AHS public health inspectors implement this direction through defined licensing and inspection processes and protocols. It is acknowledged that many different partners, agencies and organizations across the food continuum contribute to safe food for children and have responsibilities and accountability for food safety in licensed child care facilities. Legislation, policies and processes across authorities must be cohesive and complementary.

The following recommendations support greater system alignment, integration and communication between these partners to prevent foodborne illness in licensed child care facilities and support quick and effective responses to foodborne illness outbreaks to reduce further spread.

C.1. Increase integration and alignment of Alberta Health food safety legislation (i.e., *the Public Health Act*, Institutions Regulation, Food Regulation, Food Retail and Food Services Code) and Jobs, Economy and Trade child care legislation (i.e., the *Early Learning and Child Care Act* and Early Learning and Child Care Regulation) to strengthen understanding of food safety and food handling requirements of child care providers and regulators.

- C.1.1. Integrate information and use consistent wording and definitions across Acts, regulations, guidelines, handbooks and public communications, including those developed by Alberta Health Services' Environmental Public Health.
- C.1.2. Consolidate food handling and food safety requirements from the Institutions Regulation into the Food Regulation.
- C.1.3. Within the *Early Learning and Child Care Act*, make clear reference to the requirements of food safety legislation (i.e., the *Public Health Act*, Food Regulation, Food Retail and Foodservices Code).
- C.1.4. Establish a mechanism for sharing information on food safety concerns between Jobs, Economy and Trade's licensing officers and Alberta Health Services' public health inspectors.

In the realm of food safety legislation and regulation, inconsistencies and ambiguities across various documents create substantial challenges in implementation and enforcement. Child care providers must manage responsibilities under multiple pieces of legislation, which often do not cross-reference each other, complicating compliance. For instance, the use of differing terminology and definitions between Alberta Health's

Institutions Regulation, which has not been updated since 1981 and is considerably outdated, and the *Early Learning and Child Care (ELCC) Act* and Regulation leads to confusion among the public, child care providers and regulators. This discrepancy is further exacerbated by the fact that the Review Panel heard that AHS Environmental Public Health's outbreak communications may employ different wording, potentially leading to ineffective responses and confusion during times of crisis.

Moreover, the Institutions Regulation references outdated and repealed regulations such as the Provincial Board of Health Regulations Respecting Restaurants, causing uncertainty and unclear expectations for food safety in child care settings that accommodate more than 10 persons. This situation is compounded in settings with fewer than 10 users, where broad, non-specific food safety statements provide little practical guidance to operators. From the review of Canadian food-specific legislation, Alberta was noted to be the only province or territory that sets food safety requirements for licensed child care facilities based on the number of users.

The [Child Care Licensing Handbook](#), a crucial resource for facility-based programs, similarly lacks specific references to pivotal regulations like the Food Regulation or the Food Retail and Foodservices Code. This omission hinders operators' understanding and implementation of necessary food safety practices.

Communication gaps also persist between different regulatory bodies. AHS' public health inspectors and JET's licensing officers operate under different legislative frameworks, leading to varied inspection methods and responsibilities. Despite their differing mandates, there are instances where cross-communication is essential, particularly when inspectors from one authority identify potential violations that fall under the other's jurisdiction. Establishing a formal mechanism for sharing food safety and child care concerns between these entities is crucial to communicating relevant information effectively and supporting a more unified and effective regulatory approach.

Together, these gaps underscore a critical need for alignment and clarity in the legislative and regulatory frameworks governing food safety in licensed child care facilities. By addressing these inconsistencies and enhancing communication, the system can improve its responsiveness and effectiveness in safeguarding children’s health.

“I had faith in the system and the system let me down.”

- Affected family member

Intent

The overarching intent of recommendation C.1 and its sub-recommendations to enhance clarity, consistency and integration within the regulatory framework governing food safety in licensed child care facilities. These recommendations aim to align the terminology and language used in the Institutions Regulation with *ELCC Act* and *ELCC Regulation*, thereby ensuring clear and consistent communication for the public, operators and regulators. The *ELCC Act* and/or *ELCC Regulation* must make clear reference to the requirements of food safety legislation (i.e., the *Public Health Act*, *Food Regulation*, *Food Retail and Foodservices Code*). This alignment is crucial for simplifying the regulatory landscape and ensuring all stakeholders have a unified understanding of the regulations, facilitating easier compliance and enforcement.

Additionally, the recommendations address the need to consolidate food safety requirements under the *Food Regulation*. This consolidation is intended to increase clarity by reducing redundancy and supporting timely and effective legislative updates to food safety provisions. Centralizing these requirements will allow stakeholders to access a singular, coherent set of guidelines, enhancing the ease and efficacy of regulatory compliance.

Once consolidated, the *Food Regulation* should be updated to remove the regulatory exemption offered to child care facilities with 10 or fewer users to ensure all children

served food while in child care are protected from preventable illnesses, such as *E. coli* infection.

Sharing information on food safety is an integral part of a broader initiative to align and integrate government legislation and policies between Alberta Health, AHS and JET. This initiative aims to strengthen the understanding of food safety and handling requirements across all relevant entities. Clearly referencing where to find food safety requirements in the Child Care Licensing Handbook: Facility-Based Programs, increases licensed child care providers' awareness and adherence to these standards. Recommendation C.1 emphasizes breaking down organizational silos and improving cross-communication, which are vital for maintaining high standards of food safety in child care environments.

C.2. Ensure that provincial crisis management / response plans and protocols for foodborne illness outbreaks are developed; roles and responsibilities are well-understood; and communication channels enhanced amongst affected individuals, Alberta Health, Jobs, Economy and Trade, Alberta Health Services, licensed food establishments and child care operators. These plans and protocols must enable a timely and coordinated response to outbreak events.

- C.2.1. Have one organization/entity that is responsible for responding to outbreaks and provides clarity on reporting requirements and accountabilities of child care providers during an outbreak. This should be made public, so responsibilities and accountabilities are clear.
- C.2.2. Develop a response plan, led by the Government of Alberta, that outlines coordination of services in the event of a public health outbreak (i.e., who does what, when and how and who oversees various elements of the response) and communication with key stakeholders, including affected individuals.
- C.2.3. Develop an outbreak communication plan that outlines each partner's role, including child care operators. Review this communication plan annually so that it is up to date.
- C.2.4. Establish a post-response evaluation mechanism within Alberta to be activated following a foodborne illness outbreak.

The current framework for managing foodborne illness outbreaks in child care settings lacks clarity and coordination, which hampers effective response during critical incidents. The roles and responsibilities of the various provincial entities involved in outbreak response are not well-understood by providers and the public, leading to confusion and delays when action is required. Resources are available, but due to a lack of awareness, the Review Panel believes that they may be underutilized.

Engagement with affected families of the outbreak reinforced a lack of efficient and clear communication during the outbreak. Further compounding the issue, families felt communication was delayed because the outbreak began over a long weekend, and initial communication they received only mentioned a gastrointestinal outbreak. Once families did receive communication related to the foodborne illness outbreak, many felt it downplayed the seriousness of this particular strain of *E. coli* (STEC) compared to other gastrointestinal illnesses, especially as it relates to young children. Families with hospitalized children created their own Facebook page to share information in the absence of communication from other sources and may have referred to it as their primary source of information throughout the outbreak.

“There was heavy lifting between parents and families to get information, going to each other’s hospital rooms, creating a Facebook group. It goes to show why... we’re the ones that needed the information.”

- Affected family member

AHS typically leads communication to parents in the event of an outbreak. Although child care license holders are required to report critical incidents as per the *Early Learning and Child Care Act*, the foodborne illness outbreak response is not as well-defined, and child care providers may not realize nor understand their role in the response.

In addition, the Review Panel believes that communication processes and response protocols across Government of Alberta ministries and AHS could be improved as it relates to foodborne illness outbreaks in licensed child care settings. A lack of

coordination across ministries and AHS could result in inconsistent communication to stakeholders, leading to confusion. Establishing a well-defined, pre-planned and publicly available provincial response framework for foodborne illness outbreaks is crucial.

Moreover, existing protocols such as the [Alberta Foodborne Illness and Risk Investigation Protocol \(FIRIP\)](#) and the [Alberta Outbreak Response Protocol \(AORP\)](#) provide comprehensive guidelines for managing food-related outbreaks. However, these protocols primarily focus on immediate response and while there is a post-event “lessons learned” debrief with food safety partners, there is a lack of thorough, systematic, post-outbreak evaluation processes. This absence of structured provincial evaluations after responses inhibits learning and continuous improvement, preventing the identification of response inefficiencies and areas for enhancement. In addition, as FIRIP is a voluntary arrangement, partners understand that it has no compelling framework to hold them accountable in their actions or decisions.

By addressing these gaps and enhancing the existing frameworks, Alberta can improve its ability to manage and respond to foodborne illness outbreaks more effectively, ensuring efficient communication to families and better protection for public health.

“The first positive E. coli test was Sunday morning. It was three days before we heard E. coli from daycares.”

- Affected family member

Intent

The intent of these recommendations is to establish a robust and coherent framework for managing foodborne outbreaks, emphasizing the necessity for a clear, coordinated response plan across various entities responsible for public health and child care in the province. Recognizing that the impact of outbreaks and the responsibilities associated with them are distributed among multiple stakeholders, it is essential to have a well-defined system in place that delineates roles and communication pathways, especially in regard to the sharing of information. This system should be understood

and familiar to all relevant parties before any outbreak occurs, ensuring readiness and a streamlined response when needed.

An integral part of this strategy involves the development of a generic response plan that outlines the main framework for outbreak management in licensed child care facilities. It is crucial that this plan encompasses various departments and jurisdictions, including Alberta Health, AHS, JET and local authorities such as municipal, police and fire departments. By clarifying these roles in advance, we can facilitate a more effective and cohesive response during outbreak emergencies.

Furthermore, to ensure continuous improvement in outbreak management, the Review Panel recommends that a post-response evaluation mechanism be instituted provincially. This mechanism will systematically assess the effectiveness and efficiency of each response, identifying strengths, weaknesses and opportunities for improvement. By conducting a structured evaluation after each incident, the system will foster a culture of continuous learning and refinement. This process will involve an in-depth examination of the actions taken by relevant authorities and stakeholders, pinpointing specific areas that need enhancement. Through this iterative approach, the goal is to enhance the collective capacity to respond swiftly and effectively to foodborne illness outbreaks, thus safeguarding the health and well-being of the community, particularly children in child care facilities.

C.3. Establish structured procedures, including but not limited to Memoranda of Understanding (MOUs), to facilitate prompt and effective information sharing among provincial and federal governments, health authorities and partner agencies, during food safety investigations and public health outbreaks.

C.3.1. Through the Canada-Alberta Partners in Food Safety (CAPIFS) amend the Alberta Foodborne Illness and Risk Investigation Protocol (FIRIP) to include a section that outlines how the various member agencies will work collaboratively together, using a major case management model, to conduct coordinated investigations pursuant to serious public health outbreaks. Clarify when FIRIP should be activated and who can call for its activation.

The effectiveness of Alberta's public health emergency responses, particularly for foodborne illness outbreaks and investigations, is currently hindered by challenges in information sharing and coordination among various partners, including CAPIFS members. This challenge was highlighted during the post-investigation review of the 2023 Calgary STEC outbreak, where there were delays in activating the Foodborne Illness and Risk Investigation Protocol (FIRIP) coordinating committee. Delays were also evident in the access to essential food exposure and personal information by partners due to restrictive interpretations of the *Health Information Act* (HIA).

These delays are partly due to a lack of clarity within the FIRIP about when the coordinating committee should be activated and who has the authority to do so, leading to inefficiencies and fragmented responses. Moreover, some CAPIFS partners experienced delays in their investigations due to restricted access to vital food exposure information and personal information for parents of impacted children, which

is subject to both the HIA and the *Public Health Act*. For instance, the Canadian Food Inspection Agency could have conducted traceback investigations sooner if they had quicker access to food exposure information from AHS. It is the Review Panel's understanding that the HIA has provisions to enable the sharing of personal health information in the context of an investigation, however in practice, this does not occur.

These issues underscore the need for clear, actionable protocols on when and how to activate outbreak response mechanisms and share essential information among multijurisdictional partners, ensuring that outbreak investigations are timely and effective. Enhanced clarity and expediency in information sharing are critical during foodborne illness outbreaks, as timely investigations guide effective interventions and response measures.

By addressing these gaps, Alberta will have a more integrated and responsive system amongst multijurisdictional partners that can manage public health emergencies and outcomes of outbreak investigations in a more timely and effective manner.

Intent

The intent of recommendation C.3 is to establish robust, formalized processes for information sharing related to food safety investigations and public health outbreaks among provincial and federal governments, health authorities and partner agencies. These organizations, authorities and agencies include, but are not limited to, the following: Alberta Health, Alberta Agriculture and Irrigation, AHS Environmental Public Health, Health Canada, Canadian Food Inspection Agency, Public Health Agency of Canada, First Nations and Inuit Health Branch, Royal Canadian Mounted Police Livestock Investigations Unit and Alberta Municipal Police Services. These formalized processes, potentially including MOUs, aim to foster a collective understanding and streamline the collaboration needed during foodborne illness outbreaks. The goal is to enshrine collaboration and effective information sharing into routine practices, overcoming the current barriers posed by the restrictive interpretations of the HIA. This will facilitate quicker identification of outbreak sources and support potential legal actions when public safety is compromised due to unsafe food handling practices.

Recommendation C.3.1 focuses on enhancing the FIRIP to ensure it includes detailed guidelines on the activation of the multijurisdictional coordinating committee and clarifies the roles of various partners in managing serious foodborne illness outbreaks. This amendment aims to improve the coordination of foodborne illness outbreak responses, making it both timely and effective by ensuring all partners know exactly when and how to engage and share information. An examination of other outbreak response protocols in other jurisdictions, such as [Canada's Foodborne Illness Outbreak Response Protocol \(FIORP\)](#), could inform the implementation of this recommendation.

C.4. Ensure that an accredited laboratory or laboratories are in place that have the capacity and expertise to assess foodborne illness and support food safety inspections and public health outbreak investigations in a timely manner. The accredited laboratory or laboratories must have the ability to:

- Analyze environmental swabs for foodborne pathogens,
- Test foods for foodborne pathogens, as necessary, to support any ongoing food safety investigation, and
- Plan for surge capacity as needed.

C.4.1. Provide additional training to AHS public health inspectors to improve sample collection processes.

In December 2020, the Ministry of Agriculture and Irrigation (AGI) discontinued in-house testing of food for enteric pathogens, including the laboratory testing conducted for AHS Environmental Public Health. Alberta Precision Laboratories (APL) tests clinical samples for AHS from human illnesses for enteric pathogens; however, APL's operational mandate does not cover the testing of environmental swabs and foods not directly linked to an ill person. Therefore, a gap exists within AHS in regards to laboratory testing of food samples. During the 2023 STEC outbreak, APL went beyond its current mandate to analyze foods not directly linked to ill cases to assist in the investigation to determine the source of outbreak.

In addition, a third-party lab was contracted to support the outbreak investigation by conducting and analyzing the swabs that had been collected on the kitchen's surfaces, equipment and utensils (environmental swabs). This laboratory was based out of a Calgary hospital and its staff were unfamiliar with food settings and required additional supplies, which added to the investigation delay. This illustrates a clear gap in Alberta's readiness to manage foodborne illness outbreaks effectively. There may be opportunities to improve APL's capacity to support all testing requirements (including environmental swabs) for outbreak investigations.

Intent

The intent of this recommendation is to ensure that an agreement and/or contract(s) is in place with an accredited laboratory or laboratories that provide comprehensive and immediate services for analyzing all food and environmental samples collected during public health investigations. This laboratory must offer streamlined and efficient processing to ensure quick turnaround times, minimizing the handling and transit of samples. In addition, AHS public health inspectors should receive additional training to improve sample collection processes.

By enhancing the accessibility and efficacy of laboratory services, the goal is to rapidly identify the source and root cause of foodborne illnesses, thereby preventing further spread and facilitating prompt and effective response measures. This approach not

only aims to safeguard public health but also to optimize the analysis process in terms of speed and cost-efficiency.

C.5. Support innovative research and models of care to leverage Alberta's expertise in STEC infections and other foodborne pathogens to optimize acute and long-term clinical outcomes of infected children and to improve infrastructure to prevent and respond to future outbreaks.

- C.5.1. Create a STEC Centre of Excellence designed to ensure that all STEC infected children anywhere in the province receive state-of-the-art care as efficiently as possible. This will minimize the frequency and severity of acute complications and ensure all children are monitored to initiate treatment and minimize acute and long-term complications.

E. coli outbreaks are an ongoing public health issue across Canada. For example, in 1980, unpasteurized apple juice affected 14 children in Toronto, Ontario¹⁵. In 2000, manure-tainted drinking water in Walkerton, Ontario affected more than 2,300 people and caused seven deaths¹⁶. More recently, in 2019, suspected contaminated packaged salad kits infected 28 people across seven provinces¹⁷.

Prior to the September 2023 outbreak involving Calgary child care facilities, Alberta experienced other *E. coli* outbreaks associated with contaminated food. For example, contaminated pork sickened 119 Albertans in 2014¹⁸ and 42 people in 2018¹⁹. Additionally, in 2016, pork products sold at a Calgary meat shop caused illness in 18

people^{20,f}. In 2022, contaminated kimchi affected 13 Albertans and one person in Saskatchewan²¹. The 2023 outbreak was not the first instance of *E. coli* outbreak in a child care setting. In 2022, nine children in an Alberta daycare had laboratory confirmed *E. coli*⁹.

The outcomes of foodborne illness outbreaks are critically dependent on the best available research, evidence and practice to inform *E. coli* identification and response measures. Child care facilities could benefit from focused attention and preparedness, as multiple children are housed in a limited space for prolonged periods of time and as young age is a significant risk factor for acquiring and experiencing severe illness associated with *E. coli* infections^{22,23,24}.

Given the critical nature of STEC infections in young children and their potential to lead to severe conditions such as Hemolytic Uremic Syndrome (HUS), it is imperative to support research that can lead to rapid identification and effective treatment strategies. The rapid identification of STEC is critical to enable cause-specific therapy and reduce severe outcomes, such as HUS and death^{25,26,27,28}.

Alberta is a leader in scientific research for *E. coli* clinical response. The successful clinical management of this particular outbreak is a result of the expertise of the health care providers at the Alberta's Children Hospital, which coordinates closely with AHS Environmental Public Health and Alberta Precision Laboratories. This collaboration has proven crucial in preventing and managing severe outcomes resulting from *E. coli* infection and highlights the need for support and investment in research to bolster Alberta's capacity to respond to similar future events effectively. This recommendation will build on the strengths of Alberta's health care system, which has demonstrated

"Thank God for a good healthcare team there...they were on it...because hundred percent when that ball dropped, the healthcare team was there to pick it up, they responded quickly."

- Affected family member

^f Updated case numbers provided by Alberta Health.

⁹ Information provided by Alberta Health Services.

effective management of outbreaks, including the response to the 2023 Calgary outbreak.

While the clinical response led to better-than-expected outcomes and no fatalities, it is important to recognize the significant and lasting impacts on the affected children and their families, particularly those whose children may face long-term health impacts. This balanced understanding underscores the need for continued improvement in our response strategies to ensure both immediate and enduring health needs are addressed.

Intent

Alberta is home to a group of dedicated and experienced health care providers with clinical expertise on *E. coli* infections, who significantly contributed to the clinical response and management of this outbreak. The intent of recommendation C.5 is to bolster Alberta's capabilities in understanding and managing the long-term clinical outcomes of *E. coli* infections, including HUS. This recommendation emphasizes the importance of supporting innovative research and developing expertise to enhance Alberta's response to *E. coli* outbreaks, particularly for children in communal settings. The focus is on advancing the scientific understanding and clinical management of *E. coli*, leveraging Alberta's existing leadership in this field.

The objective is to not only support the enhancement of the clinical pathways and standards of care that have shown to be effective, but also to integrate these advancements into the broader food safety system. This integration will inform policy, legislation and decision-making, ensuring that future responses are informed by the latest research and best practices. Ultimately, the goal is to prevent future outbreaks and secure the best possible health outcomes for children and other populations by continuously improving the identification, management and treatment of *E. coli* infections.

By investing in and supporting leading edge research and expertise, Alberta can maintain its leadership role in treating cases of *E. coli*, safeguarding the health and well-being of its residents.

APPENDIX A: FOOD SAFETY AND LICENSED FACILITY-BASED CHILD CARE REVIEW PANEL TERMS OF REFERENCE

1. Purpose

The Government of Alberta is committed to ensuring the health and well-being of all Albertans. The Ministry of Health plays an important role in achieving this goal by ensuring that Albertans, particularly the most vulnerable including children, are protected from public health risks related to food safety, safe drinking water, air quality and other environmental hazards. The Ministry of Jobs, Economy and Trade ensures a high-quality, child care system that supports the social, physical, intellectual, creative and emotional development of children. Together, the Ministry of Health and the Ministry of Jobs, Economy and Trade have distinct and critical roles in providing oversight of licensed facility-based child care and the licensed food establishments (“shared kitchens”) that supply food for children in those facilities in Alberta.

Since the recent *Escherichia coli* (*E. coli*) outbreak in licensed facility-based child care in Calgary was declared on September 4, 2023, Alberta Health Services (“AHS”) staff have been working to care for the children and families affected, and to identify the source of the outbreak. The Government of Alberta is undertaking a review of the legislation in the Ministry of Health that establishes the oversight for food inspection by AHS in licensed facility-based child care and shared kitchens that service licensed facility-based child care programs. In addition, the review will consider the legislation in the Ministry of Jobs, Economy and Trade associated with child care licensing and inspection policies. The intent of the Food Safety and Licensed Facility-based Child Care Review Panel (“Review Panel”) is to review the respective legislation, regulation and the inspection policies for areas that could be strengthened to protect the health and safety of Alberta’s children in these settings.

Public members to the Review Panel are appointed to ensure the perspectives, experiences, expertise and insights of parents, licensed facility-based child care operators, shared kitchen operators and public health and food safety experts are

considered and reflected in the interim recommendations provided to the Ministers of Health and Jobs, Economy and Trade, which shall be provided upon request of the Ministers.

2. Roles and Responsibilities

Under the guidance of the Chair, the contributions of parents, licensed facility-based child care operators, shared kitchen operators and public health and food safety experts, the Review Panel will advise the Ministers of Health and Jobs, Economy and Trade on opportunities to strengthen:

- *The Public Health Act*, RSA 2000 c P-37, 2006 and the Institutions Regulation, Alta Reg 143/1981;
- *The Early Learning and Child Care Act*, SA 2007, c E-0.1 and Early Learning and Child Care Regulation, Alta Reg 143/2008; and
- The associated inspection processes in the context of prevention of foodborne illness.

Members will be asked to:

- Review the *E. coli* outbreak investigation report;
- Recommend how processes in relation to licensing/permitting, food handling, inspections and inspection violations could be strengthened in licensed facility-based child care and shared kitchens supplying those facilities;
- Review the legislation and inspection protocols other jurisdictions have adopted relative to food safety to ensure Alberta Health's and Jobs, Economy and Trade's legislation and inspection protocols are reflective of best practices; and
- Recommend options to enhance foodborne illness prevention and protection.

3. Outcomes

There are two main outcomes:

1. Identifying opportunities for strengthening the legislation and/or inspection processes that govern food safety in shared kitchens servicing licensed facility-

based child care, and the child care settings themselves, are identified with recommendations for implementation.

2. Ensuring parents and families have confidence that the food served to their children in licensed facility-based child care is produced and prepared under appropriately stringent legislated oversight.

4. Membership

The Minister of Health and the Minister of Jobs, Economy and Trade jointly appoint members who have knowledge of licensed facility-based child care, foodservice establishments and best practices in food safety and public health measures.

Members include parents, licensed facility-based child care operators, foodservice operators, and food safety and public health experts. Membership is limited to the Chair and a maximum of 6 members. Each member is expected to:

- provide advice and guidance on topics or issues identified for consideration;
- represent their perspective in Review Panel discussions in a way that brings their relevant knowledge, experience and subject matter expertise;
- attend meetings on a regular basis;
- consult and communicate with members, leaders and others in their communities or organizations to raise awareness of the Review Panel's work, bring parents' perspectives to the Review Panel, and where appropriate, to identify resources, potential partnerships, or other supports for implementation of the Review Panel recommendations.

Chair:

Mr. Richard ("Rick") Hanson, former Calgary Police Chief, will chair the Review Panel.

Members:

Dr. James D. Kellner, Member

Dr. Lynn McMullen, Member

Leslie Echino, Member

Tyler Shapka, Member

Shannon Doram, Member

5. Meetings

- Meetings will occur once a month for a minimum of 60 minutes, or longer as required. Additional meetings may be required.
- Meetings will be supported by a Secretariat provided by the Public and Rural Health Division, Alberta Health.
- In-person Review Panel meetings may be required, and travel costs associated with participating in person will be covered. Whenever possible, meetings will be convened by video conference.
- All Review Panel members are expected to attend Review Panel meetings in person or virtually. When a Review Panel member is unable to participate in a meeting, advance notice must be conveyed with the Chair.
- Quorum requires 50 per cent of members in attendance, exclusive of the Chair.

6. Secretariat

The Public and Rural Health Division of Alberta Health will provide Secretariat support for the Review Panel and the Chair.

The Secretariat will:

- provide research, literature, jurisdictional scans and other information required to inform the discussions amongst Review Panel members;
- schedule regular meetings at least two weeks in advance, and develop meeting agendas with the Chair;
- distribute meeting materials at least three working days in advance of the meeting, and ensure meetings are held at dates, times and locations convenient for the Review Panel members;
- record outcomes, action items and recommendations from each meeting, and distribute drafts to all members within 7 days of the meeting; and
- prepare all documentation for review and decision by Review Panel members.

7. Decision Making and Reporting

The Review Panel will make the final recommendations from the Review Panel by

consensus. All suggested recommendations that do not achieve consensus will also be recorded in the final report.

Recommendations shall be provided to the Ministers of Health and Jobs, Economy and Trade upon request of the Ministers.

8. Remuneration and Expenses

The Chair of the Review Panel shall be paid:

- (a) \$285 for up to and including four hours in any day, or
- (b) \$500 for over four hours and up to and including eight hours in any day, or
- (c) \$785 for over eight hours in any day, spent on the business of the committee.

The members of the Review Panel shall be entitled to remuneration in accordance with Appendix 3, Schedule 1, Part A of the Committee Remuneration Order (O.C. 466/2007), subject to review.

The Chair and Review Panel members may only receive payment of or reimbursement for travelling, living or other expenses incurred while away from their ordinary places of residence and while in the course of their duties as members, in accordance with the Government of Alberta Travel, Meals and Hospitality Expense Policy, as amended and subject to review (as if they were employees of the Government of Alberta).

9. Accountability and Governance

The Review Panel reports jointly to the Minister of Health and Minister of Jobs, Economy and Trade and is accountable through Assistant Deputy Ministers from Health and Jobs Economy and Trade.

10. Documents and Confidentiality

The Review Panel must comply with all applicable privacy laws governing the collection, use, disclosure and safeguarding of information.

The Chair and members of the Review Panel will maintain the confidentiality of all information obtained in the course of participating in the Review Panel (Confidential

Information) and will use any information that is provided solely for the purposes of fulfilling their role and work as a part of the Review Panel and not for any other purposes. Confidential Information does not include:

- (i) any information which was in the public domain at the time of its receipt or collection in connection with the Review Panel's work;
- (ii) any information that is intentionally made public to increase public trust through transparency and accountability, which could include but is not limited to public minutes, agendas and presentations.

Subject to all applicable laws (including applicable privacy and health information laws), the Chair and all members of the Review Panel will not disclose any confidential information to any person who is not part of the Review Panel except:

- (i) as required by applicable law;
- (ii) with the prior written consent of and subject to the terms and conditions which may be required, by the Ministers;
- (iii) with prior written consent of the Review Panel Chair. The Chair may also set terms and conditions in respect of such disclosures.

All Confidential Information in the possession of the Chair or a Review Panel member shall be returned to Alberta Health:

- (i) upon expiry of the Review Panel;
- (ii) upon completion of the work of the Review Panel; or
- (iii) upon expiry, or earlier termination of the term of a member's appointment on the Review Panel, whichever occurs first.

11. Media Communications

The Chair and all members of the Review Panel shall direct all media inquiries regarding the Review Panel's work to the Ministers of Health and Jobs, Economy and Trade.

12. Term

The terms of the Review Panel, the Chair and the Review Panel members will expire upon successful completion of project deliverables, or by June 30, 2024, whichever comes first.

13. Conflict of Interest

- The Review Panel Chair and members must be aware of and avoid conflicts of interest.
- A conflict of interest exists when the Chair or a member has a Private Interest or Business Interest that influences or appears to influence the objective exercise of their Review Panel responsibilities; their interest is 'at variance' or 'in conflict' with their Review Panel duties and responsibilities and/or they gain or appear to gain an advantage for themselves or Closely Associated Persons by virtue of their role as a part of the Review Panel.
- For the purposes of Conflicts of Interest:
 - a. 'Affiliation' includes being a member, employee, volunteer, owner, shareholder, creditor, director, elected representative, appointee or Trustee of an Entity, or having any type of legal or equitable interest in an Entity.
 - b. 'Business Interests' include any interests arising as a result of a current, former, or prospective Affiliation with any for profit, not-for-profit, or charitable Entity.
 - c. 'Closely Associated Persons' are persons with whom there is a substantial relationship and include a spouse, adult interdependent partner, child or other relative, a close friend, an employer, a business associate and a client.
 - d. 'Private Interest' includes a personal obligation, financial interest, Business Interest or an interest of one or more Closely Associated Person(s). A Private Interest does not include an interest:
 - i. In a matter that is of general application;
 - ii. That affects a person as one of a broad class of the public; or
 - iii. That is trivial.
- Review Panel Members have an ongoing obligation to promptly and fully disclose conflicts of interest in writing to the Chair. A disclosure alone does not remove conflict of interest.
- If an unanticipated conflict of interest arises during a meeting, or other business of the Review Panel, members must bring this to the attention of the Chair, as soon as possible.

- When there is a change in a Review Panel's member's responsibilities within the Review Panel or in personal circumstances, the member must disclose any relevant information about any conflict of interest in writing to the Chair as soon as possible.
- The Chair will endeavor to address and manage conflicts of interest. Where a conflict of interest cannot be avoided, members must take the appropriate steps to manage the conflict in consultation with the Chair.
- If, in the opinion of the Chair a Review Panel member does not appropriately manage a conflict of interest, the Chair will decide how the conflict is to be managed.
- If necessary, a Review Panel member may be asked to remove oneself from matters in respect of the conflict of interest. A record of these decisions will be maintained.

Should the Chair identify a conflict of interest of their own, the Review Panel members will select an Interim Chair by way of a formal motion, and that Interim Chair will preside over any discussion, deliberation or decision on matters related to that conflict of interest.

APPENDIX B: ENGAGEMENT FINDINGS

The Review Panel's recommendations were informed by relevant experiences, concerns and suggestions shared by families and licensed child care providers affected by the 2023 STEC outbreak in child care facilities; public health specialists, legal and food safety experts; early learning and child care professionals; and members of the public. Engagement occurred in March and April 2024, and included the following activities:

- Online and in-person roundtable discussions with affected families and child care providers;
- A public engagement survey on Alberta.ca; and
- Written submissions submitted by those with subject matter expertise in public health, food safety or public health inspection.

A third-party vendor that specializes in engagement was contracted to support these activities.

This engagement achieved the following goals:

1. Provided a safe and transparent opportunity for affected families to communicate their experiences, raise concerns and provide suggestions to enhance food safety in licensed facility-based child care.
2. Established the context of the outbreak by integrating the perspectives of affected parents, families and affected child care providers to inform the Review Panel's recommendations.
3. Considered relevant perspectives and feedback from those personally impacted by the event and objective input from subject matter experts to inform and reinforce recommendations to the Minister of Health and the Minister of Jobs, Economy and Trade.

Overview of Findings

There was notable alignment of opinions and perceptions across the different audiences and engagement activities. However, each audience had unique experiences and perspectives and focused on some topics or ideas more than others.

The roundtable discussions with affected families were impassioned and at times, emotional. Families felt that communication was uncoordinated and confusing, especially in the early days of the outbreak, which made what was a very difficult time for them even harder to manage. Families described feeling:

- **Blindsided:** “How could this ever have happened?”.
- **Let down:** Families felt they had selected a reputable child care facility that promoted the serving of nutritious meals. They felt they had done the right thing.
- **Abandoned:** This feeling was created by the lack of communication regarding kitchen citations and violations and the lag in information at the outset of the outbreak.

While a broad audience participated in the public engagement survey, the majority of survey respondents identified as child care providers that were *not* directly impacted by the outbreak in 2023 nor a foodborne illness outbreak the past. Survey respondents voiced similar concerns as roundtable participants.

There were notably lower levels of participation from child care providers who were directly affected by the outbreak. More providers affected by the outbreak contributed via the online engagement survey (11) compared to one-on-one virtual interviews (two). It is clear from the responses received that these child care providers believe the industry has been tarnished by the impact of this outbreak and the costs of these impacts will be borne by others in the industry. Some of the comments made by child care providers reinforced the perceptions of family members and subject matter experts, such as inadequate food safety training. One child care provider questioned

how their role in distributing prepared foods contributes to safe food handling practices.

Submissions from subject matter experts demonstrated that food service in child care settings is addressed by a number of adjacent, but not direct, pieces of legislation. There is a lack of clarity on the specific requirements for safe food handling and preparation practices in a licensed child care facility, and food transportation is not adequately addressed in legislation and standards.

Detailed Findings

1. Roundtable Discussions

A series of stakeholder roundtable discussions were conducted in-person and online. Roundtables were conducted with parents, guardians and family members of children who attended one of the child care facilities affected by the outbreak and with child care providers who worked at an affected facility. One-on-one interviews were conducted with individuals who were unable to attend the scheduled roundtable discussions. Discussion covered five topics:

1. Ways that food handling, food safety, or food preparation in licensed child care facilities are working well.
2. Concerns or issues with food handling, food safety, or food preparation in licensed child care facilities.
3. Best practices in education and public awareness, food handling and food safety or other practices that you may be aware of.
4. Changes that would increase your confidence in the meals and snacks provided to your child in a licensed child care facility.
5. How this outbreak impacted you and your (family's/staff's) confidence in food safety in these settings.

A total of eight in-person and online discussions were conducted (five roundtable discussions; three one-on-one interviews) with 20 affected family members and two child care providers between April 17 and 24, 2024. Discussions lasted between 45 minutes to two hours. Discussions resulted in the following findings:

Affected families have lost confidence in “the system”.

- After the outbreak, families no longer trust food safety protocols as they have learned about failures in inspections, compliance and transport practices. They now question food provided in child care settings, and lack trust in Alberta Health Services and the oversight they provide to food safety in child care settings.

“The system” is seen as having failed at every stage.

- Families identified problems in food preparation, transport, serving and communication.

The impacts of the outbreak reach far beyond the experience of having a foodborne illness.

- Eight months after the outbreak, families remain angry and frustrated. They cite financial strain from job changes, health concerns, post-traumatic stress disorder (PTSD), anxiety over child care options and guilt about food safety, prompting them to bring their own food and scrutinize care arrangements more closely.

Families want to have quick and immediate access to the information needed to make informed child care decisions.

- Families want to receive timely access to inspection reports and corresponding violations. For example, inspection violations should be posted on facility doors or emailed directly to parents immediately following an inspection, with corrective actions being taken (if required).
- Families want timely information on outbreaks as the situation is developing, including information on the outbreak, symptoms to watch for and when to seek medical attention.

- Families want child care facilities to provide ongoing information about menus and safe food handling procedures. They prioritize their children's health over privacy or temporary closures.

Families are concerned about how child care options and opportunities will be impacted in the future.

- Families support preventing foodborne illness outbreaks but are concerned about rising child care costs, the availability of alternative care options and the potential decline in healthy food choices due to stricter safety measures.

On-site kitchens versus off-site kitchens versus family-provided snacks and meals.

- Families shared various opinions on the source for meals provided in child care, including:
 - On-site kitchens offer transparency, but risk shortcuts in safe practices or less nutritious meals.
 - Off-site kitchens can be staffed by specialists but can cause contamination during transport.
 - Family-provided meals offer control but raise concerns over allergens and foodborne illness.

The food provider is perceived to be at fault for the outbreak, but AHS is seen as responsible for allowing it to happen.

- It is perceived that the food provider failed to maintain safe food practices, and inadequate follow-up, enforcement and training by AHS to the food provider is believed to have contributed to the outbreak.

Health care workers are seen to be the heroes in this tragedy.

- Families praise the hospital staff as skilled, responsive and organized, noting they led effective communication efforts and formed a dedicated outbreak team that worked extra hours to prevent a more severe outcome.

2. Online Survey

As part of the Review Panel's engagement process to help inform their recommendations, an online public engagement survey was hosted on the Government of Alberta's website (Alberta.ca). The survey also acted as a supplementary yet anonymous submission option for affected parents, guardians and families and licensed child care providers who may not have felt comfortable participating in the roundtable discussions.

The online survey included approximately 30 questions and consisted of both closed-ended and open-ended questions. A total of 385 responses were recorded between March 22 and April 23, 2024. Responses included 51 individuals who were affected by the outbreak in Calgary and seven individuals who had been affected by a previous foodborne illness outbreak from a licensed child care facility in Alberta.

Findings from this public engagement survey demonstrated:

15 per cent of respondents were directly affected by an outbreak.

- Most respondents affected by a foodborne illness in a licensed child care facility in Alberta were affected by the most recent outbreak declared on September 4, 2023 (13 per cent), while a smaller number (two per cent) were affected in the past. Both families and employees who were affected by the outbreak indicate the primary source was an off-site kitchen (71 per cent).

Off-site kitchens are a significant concern.

- The majority of respondents (58 per cent) have concern about food safety, food handling and/or food preparation in off-site kitchens. Comparatively, concern over on-site kitchens is more moderate, with interested Albertans and families expressing greater concern than employees or child care providers.

The recent outbreak has greatly reduced food safety confidence.

- Among Albertans affected by the recent outbreak, confidence in food safety has decreased significantly. Most respondents (93 per cent) affected by an outbreak in an off-site kitchen reported that their confidence in these kitchens has “decreased greatly” and two-thirds (66 per cent) say they are “not at all confident” with off-site kitchens overall. Among those associated with an outbreak in an on-site kitchen, the experience resulted in more modest shifts in confidence.

Respondents are calling for increased food safety and oversight.

- Consistent feedback in open-ended responses indicated four main areas where respondents want improvements: mandatory food handling and safety training, clear health and safety standards, increased accountability and communication and specific guidelines for food transportation.

3. Expert Submissions

As part of the Review Panel’s stakeholder engagement, requests were sent to 16 identified subject matter experts (SMEs) that specialized in public health, food safety and/or public health inspection. These experts were invited to prepare written submissions in response to four main guiding questions.

Six responses were submitted from the following participants:

- Canadian Institute of Public Health Inspectors (CIPHI)
- Canadian Society of Nutrition Management (CSNM)
- Restaurants Canada (RC)
- SMEs from the O’Brien Institute for Public Health, Centre for Health Policy, University of Calgary
- A professor and food safety extension specialist from the United States.
- A professor and expert in epidemiology and foodborne disease from Canada.

The guiding questions sought feedback on:

- Current food handling, safety and transportation practices in licensed child care;
- Advice to improve food handling, safety and preparation in kitchens supplying licensed child care facilities, focusing on areas like food safety culture, education, inspection, compliance and licensing;
- Suggestions for improving Alberta's regulations to better protect children's health; and
- Leading or emerging best practices in food handling and safety for child care.

Recommendations from SMEs were organized into the following seven categories:

1. Standards, planning and preparedness
2. Operational and facility management
3. Food handling and safety management
4. Food transportation
5. Inspections: frequency and rigor
6. Higher enforcement standards and penalties for non-compliance
7. Strengthening of legislation and communication to support recommended measures

Examples within each of these categories further reinforced the Review Panel's recommendations, particularly with respect to:

- promoting and enabling a food safety culture in licensed child care facilities;
- developing indicators to measure food safety culture;
- expanding required food safety education;
- increasing the province's capacity to respond to public health outbreaks by having public health inspectors with advanced training, knowledge and experience in outbreak response; and
- increasing integration and alignment of legislation to strengthen understanding of food safety and food handling requirements of operators and regulators.

APPENDIX C: ESCHERICHIA COLI

What is Escherichia coli (E.coli)?

E. coli is a group of bacteria that are found in the environment, food and intestines of people and ruminant animals (i.e., cattle, goat, deer and sheep)²⁹. Most strains of *E. coli* are harmless. However, the O157:H7 strain produces a harmful toxin, known as Shiga toxin, that leads to serious foodborne illness³⁰. This Shiga toxin-producing *E. coli* strain (STEC) was identified as the bacteria responsible for causing illnesses linked to the September 4, 2023, outbreak in Calgary, Alberta.

How does it spread?

Exposure to STEC can occur by eating foods such as raw or undercooked beef or meat, unpasteurized milk or juice products, raw fruits, or vegetables, such as lettuce or sprouts, that are contaminated with the bacteria. It can also be spread by consuming water contaminated with STEC, including exposure to contaminated water during recreational activities (for example, swimming). Further to this, the bacteria can be spread from person to person by improper or lack of hand washing after going to the toilet, changing diapers, or before preparing food³⁰.

Who can be infected with STEC?

Anyone can become infected with STEC. Very young children and the elderly are more likely to develop severe illness, but anyone can become seriously ill³¹.

Symptoms

STEC may cause mild to severe symptoms, including diarrhea, stomach cramps, vomiting, fever and in severe cases, bloody diarrhea. Symptoms generally start three to four days after exposure to STEC and usually last five to ten days³¹. For some people in higher risk groups, such as children, STEC infections can cause a complication called

Hemolytic Uremic Syndrome (HUS). HUS can lead to kidney failure, neurological damage and in the worst cases, death³².

Prevention of STEC Infection

There are several key safe food handling practices that should be followed to prevent the spread of STEC. These include, but are not limited to:

- Washing hands thoroughly and often when handling food, including preparation and service,
- Cooking ground beef and all other meats to a safe internal temperature,
- Preventing cross contamination between raw and cooked or ready-to-eat foods by following safe food handling practices,
- Using and consuming safe drinking water, and
- Disposing of soiled diapers in a manner that prevents cross contamination followed by proper handwashing, including after using the bathroom^{29,32}.

APPENDIX D: LEGISLATIVE FRAMEWORK FOR FOOD SAFETY IN LICENSED CHILD CARE FACILITIES IN ALBERTA

Together, the Ministry of Health and Ministry of Jobs, Economy and Trade (JET) have distinct but critical roles in providing oversight of licensed facility-based child care programs. Both ministries work in parallel to reduce risks associated with food in licensed child care facilities. The Ministry of Health is the primary authority for food safety and is responsible for issuing food handling permits to approved food establishments in Alberta, including those that supply food for children in licensed child care facilities. On the other hand, JET leads the oversight for early learning and child care, which includes approving and issuing licenses to operate child care programs.

Food Safety

Alberta Health

The Alberta Department of Health (often referred to as Alberta Health) establishes the Government of Alberta's strategic direction for health, including advising government on health policy, legislation and standards, and public health concerns, monitoring and reporting health system performance, setting policies and priorities for the electronic/digital health environment and providing oversight and ensuring accountability across the health system.

Alberta Health is responsible for maintaining and reviewing the legislation listed below, which establish Alberta's food safety legal framework.

Chief Medical Officer of Health

The Chief Medical Officer of Health (CMOH) is appointed by the Minister of Health, and on behalf of the Minister, the CMOH has overarching legislated responsibilities for monitoring and reporting on the health of Albertans and advising on actions to protect and promote the health of the public under authority of the *Public Health Act* (PHA). This is accomplished by supporting and providing directives to health authorities,

medical officers of health (MOHs) and AHS public health inspectors, as well as sometimes leading the development of healthy public policy and fulfilling the obligations of the PHA.

Alberta Health Services

Alberta Health Services (AHS) is the provincial health authority responsible for delivering a substantial portion of health care services across the province. AHS establishes and secures high standards of quality and safety and operational efficiency and effectiveness.

AHS is responsible for issuing food handling permits for the operation of a commercial food establishment, including those that supply food for children in licensed child care programs. AHS is also responsible for conducting public health inspections and enforcing the PHA and its food safety regulations within these facilities.

AHS Environmental public health inspectors are an important part of AHS' frontline response and operate under the PHA to ensure compliance with the province's legislation. A public health inspector's primary objective is to identify and eliminate public health hazards. Public health inspectors conduct risk assessments, perform inspections, follow up on complaints and collect samples. In the event of a violation, AHS takes an education-first approach to gain legislative compliance but may issue a work/repair or closure order or take other legal actions when required. Public Health Inspection Reports are posted publicly by AHS on the following website: www.albertahealthservices.ca/eph.

Public Health Act

In Alberta, the *Public Health Act* (PHA) provides the overarching legal framework that addresses matters relating to public health issues, including food safety. The PHA addresses the duties of the Chief Medical Officer of Health, deputy and medical officers of health; outlines the responsibilities of health authorities; deals with the treatment of

communicable diseases; addresses epidemics; and deals with public health emergencies.

With respect to food safety, the PHA gives authority to executive officers (EOs), who are medical officers of health (MOHs) or public health inspectors, to inspect any public or private place to determine the presence of a nuisance and gives the authority for EOs to issue written orders, including closure orders. Under the PHA, there are two key regulations that address food safety:

1. Food Regulation (31/2006): Prescribes food handling permit requirements for food establishments, the operation of establishments that provide food services and establishes the Food Retail and Foodservices Code. [The Food Retail and Foodservices Code \(2003\)](#) consists of model requirements for safeguarding public health and assuring food safety. It provides practical, user-friendly interpretations and guidance for compliance with legislation.

2. Institutions Regulation (143/1981): Prescribes the requirements for child care facilities and requirements for building construction, lighting and ventilation, plumbing facilities, waste disposal, sleeping and resting accommodation, maintenance, first aid supplies, food facilities and daycare facilities.



Alberta Agriculture and Irrigation

The Ministry of Agriculture and Irrigation (AGI) is responsible for the policies, legislation, regulations and services necessary for the agriculture and food sector to grow, prosper and diversify. AGI is also responsible for inspiring public confidence in the quality and safety of food and for supporting environmentally sustainable resource management practices. This work is fundamental to food safety, especially as it relates to Alberta's food supply chain.

Alberta's food supply chain moves through five main stages: (1) producers (farmers), (2) processors, (3) distributors, (4) retail/food service and (5) consumers. The food supply chain describes the process of how food goes from the farm to the table. AGI is the primary authority that oversees the safety of food from provincially-licensed slaughter facilities and other food processing facilities, such as dairy processing facilities, that do not export outside the province. For more information visit: <https://www.alberta.ca/food-safety>.

The Review Panel recognizes that although the production and processing of food is out of scope for their review, it has considerable implications for the safety of food at the retail/food service and consumer stages, which is especially important in the context of food that is served to children. The Review Panel's recommendations are intended to compliment and align with the existing multijurisdictional environment of Alberta's food supply chain.

Federal Legislation and Oversight

Health Canada is responsible for establishing standards for the safety and nutritional quality of all foods sold in Canada. The department exercises this mandate under the authority of the *Food and Drugs Act* and pursue its regulatory mandate under the Food and Drug Regulations. The legislation oversees specific food safety requirements such as food additives, process controls, allergens, composition and labelling requirements. The federal government is also responsible for the *Safe Food for Canadians Act* and Regulations which outline food hygiene requirements for businesses that are exporting

food outside of provincial borders. Federal legislation was not included in the scope of the Review Panel's mandate.

Health Canada establishes the policies, regulations and standards related to the safety and nutritional quality of all food sold in Canada. The Canadian Food Inspection Agency (CFIA) is responsible for enforcing the food safety policies and standards that Health Canada sets.

Within CFIA's mandate, the following acts and regulations apply to food in Canada:

- The [Food and Drugs Act](#) and the [Food and Drugs Regulation](#): Applies to all food sold in Canada.
- The [Canada Consumer Product Safety Act](#): Sets provisions for those that manufacture, import, sell, advertise, test and/or package or label consumer products.
- The [Safe Food for Canadians Act](#) and the [Safe Food for Canadians Regulations](#): Sets provisions for food products that are imported, exported and/or traded between provinces and territories.
- The [Consumer Packaging and Labelling Act](#) and the [Consumer Packaging and Labelling Regulations](#): Governs the packaging, labelling, sale, importation and advertising of prepackaged and certain other products.

Licensed Child Care

Alberta Jobs, Economy and Trade (JET)

Alberta's licensed Early Learning and Child Care (ELCC) system is governed by provincial legislation - the *Early Learning and Child Care Act* and the *Early Learning and Child Care Regulation*. Together, the *ELCC Act* and *Regulation* set out principles and matters to be considered for ELCC, and provides the authority to license, inspect and monitor child care programs. The *ELCC Act* and *Regulation* also set out the legislated requirements licensed child care programs must follow to meet a child's developmental needs, including safety, security and well-being. The legislation

provides child care providers and educators the tools and flexibility to meet the diverse needs of families in their communities.

Alberta has a mixed market of child care providers, which includes non-profit (facility-based and home-based), public (municipally owned and operated) and for-profit (private). As per the mandate of the Review Panel, only daycare programs, which are facility-based child care programs provided to infants, preschool children and kindergarten-aged children for four or more consecutive hours in each day that program is provided, were in scope of this review.

Food in Licensed Child Care Facilities

The Early Learning and Child Care Regulation provides nutrition requirements for licensed child care facilities. The requirements are as follows:

- Facilities must provide or require families to provide meals and snacks for children in the program.
- When providing meals and snacks, a licence holder must ensure that meals and snacks are provided at appropriate times and in sufficient quantities in accordance with the needs of each child, and in accordance with a food guide recognized by Health Canada or Alberta Health.
- Infant nutrition provided by families must be clearly labelled with the infant's name.
- If a licence holder provides meals or snacks for children in the program, the licence holder must ensure that menus for all meals and snacks are posted in a prominent place on the program premises.

As outlined in the Early Learning and Child Care Regulation, each licensed child care facility is required to complete an Early Learning and Child Care Program Template. Section 21 of the Program Plan requires facilities to outline if and what is being served and if a third-party catering company will provide food to the facility.

The provision of food in facility-based child care is not standard. Based on the most recent data from JET (2022), only half of licensed child care providers prepare meals for children in care and approximately 66 per cent provide snacks for children in care.

JET licensing officers (LOs) only have the authority to inspect what is enforceable under the *Early Learning and Child Care Act* and Early Learning Child Care Regulation. There are no authorities tied to the *Public Health Act* that JET LOs can enforce regarding kitchen safety.

Licensed child care programs will generally receive a minimum of two licensing inspections during a 12-month period. If non-compliances are identified during those inspections, incidents occur or complaints are received, licensing staff will complete additional inspections or an assessment, as required.

JET licensing staff are authorized to take enforcement action by issuing a notice of non-compliance, an order to remedy non-compliance, imposing conditions on a licence for a specified period of time, vary the provisions of the program licence, suspend a licence and issue a non-renewable probationary licence and cancel a licence.

The enforcement action will be provided in writing and will state the date by which the licence holder must demonstrate compliance. Voluntary compliance through action plans is the preferred route before taking other enforcement steps. If non-compliances are found by LOs, these orders are posted online on the [Child Care Lookup Tool](#), which is accessible to the public.

APPENDIX E: JURISDICTIONAL SCAN AND LITERATURE REVIEW

Jurisdictional Scan

The Review Panel conducted a comprehensive Canadian jurisdictional scan to obtain information from other provinces and territories in key areas related to food safety and child care authorities. The scan is primarily composed of publicly available information and is supplemented by direct responses received from six jurisdictions: British Columbia, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island and Saskatchewan.

The jurisdictional scan compared Alberta's provincial food safety legislative framework to other frameworks across the country, including the authorities and structures for child care and food safety legislation. A comparison of food safety legislation applicability, definitions, food licensing and permitting requirements, approved food sources requirements, food safety training requirements, authority of public health inspectors and identified challenges was completed. Additionally, the Review Panel reviewed information from other provinces and territories related to their child care operations and accredited laboratory services used for environmental testing and other related laboratory services.

Literature Review

The Review Panel conducted a literature review on established best practices and protocols in child care facilities when responding to foodborne illness outbreaks and on common risk factors to, patterns in, and contributing factors of *E. coli* outbreaks within child care facilities over the last 10 years. The search included peer-reviewed articles and grey literature published by government agencies and organizations.

Overall, the literature review yielded over 60 documents from Canada, United States, United Kingdom, Denmark, France, Italy and Japan. Results of the review were pivotal

for the Review Panel in understanding Alberta's context within larger national and international food safety practice and protocols, particularly in child care settings.

Additionally, the Review Panel reviewed the following reports in detail:

- Report of the Walkerton Inquiry - Government of Ontario (2000)¹⁶
- The Auditor General of Alberta Report - Provincial Food Safety (2005/2006)¹⁴
- The WPC80 Incident: Causes and Responses - Government of New Zealand³³
- Codex Alimentarius: General Principles of Food Hygiene - Food and Agriculture Organization of the United Nations (2022)⁹
- Commission Regulation - European Parliament (2021)¹⁰
- Guidelines on Food Safety Culture - FoodDrinkEurope (2023)⁸

APPENDIX F: GLOSSARY

Approved Food Establishment/Food Premises: A place that possesses a valid food handling permit, where food is handled³⁴.

Demand Inspection: An inspection that is conducted in response to information received about conditions or a practice that may warrant investigation.

Enteric: Derived from the word "gastroenteric", meaning of, relating to, or affecting the intestine. Enteric diseases are caused by micro-organisms such as viruses, bacteria and parasites that cause intestinal illness. These diseases most frequently result from consuming contaminated food or water and some can spread from person to person.

Epidemiology: The study of the distribution and determinants of health-related states or events in specified populations and the application of this study to the control of health problems³⁵. Epidemiological Data is the information used to detect and identify the cause of a disease outbreak and trace it back to its source to inform interventions and control measures³⁶.

Escherichia coli (E. coli): *Escherichia coli*, commonly known as *E. coli*, is a group of bacteria found in the environment, food and intestines of people and animals²⁹.

Executive Officer: A person appointed as such for the purposes of carrying out the *Public Health Act* and its regulations³⁷.

Facility-Based Child Care: A facility-based program in respect of which a license has been issued under Section 5 of the *Early Learning and Child Care Act*. Facility-based child care is provided to infants, preschool children and kindergarten-aged children for four or more consecutive hours in each day that the program is provided.

Food Safety Culture: A systematic review completed by the FDA⁵ found that the most frequently cited definition of food safety culture is the "aggregation of the prevailing, relatively constant, learned, shared attitudes, values and beliefs contributing to the hygiene behaviors used within a particular food handling environment" (Griffith, Livesey and Clayton 2010)⁶. Food safety culture has been

defined similarly by other industry leaders, such as the Global Food Safety Initiative⁷ and FoodDrinkEurope⁸.

Foodborne Illness: An illness that occurs when a person gets sick from eating food that has been contaminated with a harmful microorganism³⁸.

Licensing officer: Authorized Jobs, Economy and Trade licensing staff who hold delegated authority and act on behalf of the Statutory Director named in the *Early Learning and Child Care Act*.

Outbreak: A disease outbreak is the occurrence of disease cases (in this instance STEC cases) in excess of the normal expectancy and is unusual in terms of time, place or persons affected³⁹.

Public Health Inspector: A person who holds a Certificate in Public Health Inspection (Canada) issued by the Board of Certification, or a Certificate in Sanitary Inspection (Canada) issued by the Board of Certification and is designated as an Executive Officer under the *Public Health Act*⁴⁰.

Shared Kitchen: A permitted commercial food establishment that prepares and provides food to other facilities where the food is then served for consumption.

APPENDIX G: RECOMMENDATIONS

Theme A: Fostering a Culture of Food Safety that Supports High Quality, Safe and Healthy Learning Environments for Children

A.1. Promote and enable a food safety culture in licensed child care facilities and food establishments that service licensed child care facilities.

- A.1.1. Incorporate the requirements for food safety culture into food safety legislation.
- A.1.2. Require all establishments with a food handling permit and all licensed child care facilities to establish a written commitment that it will maintain a food safety culture.
- A.1.3. Develop indicators to measure food safety culture, provide training to AHS public health inspectors on how to identify food safety culture and increase the inspection frequency of facilities that do not demonstrate food safety culture and practices.
- A.1.4. Develop a grading system for food inspections of licensed food establishments, similar to other jurisdictions. Require food establishments to visibly post their food inspection grade in a conspicuous place.
- A.1.5. Require all licensed child care providers to post their most recent public health inspection reports in a conspicuous place.
- A.1.6. Provide resources, tools and templates to child care operators to implement an internal inspection or audit system to help establish a food safety culture.
- A.1.7. Enhance awareness of reporting mechanisms for parents and staff to raise concerns regarding food safety and report unsafe food handling practices within licensed child care facilities and food establishments serving these facilities, including anonymous methods of reporting. Licensed child care facilities and food establishments should display contact numbers to report concerns.

A.2. Expand required evidence-based food safety education by:

- **Requiring food safety certification every three years (under section 31 of the Food Regulation) for anyone who cooks or prepares food within any establishment with a food handling permit or within any licensed child care facility; and**
- **Requiring an annual simplified food safety training course for anyone who serves food to children in a licensed child care facility.**

A.2.1. Require a 'food safety culture' component withing food safety certification and training courses approved under section 31 of Food Regulation, so that the meaning and importance of food safety culture is evident across the system.

A.2.2. Require that all staff and volunteers of licensed child care facilities, as part of their annual training course, sign a statement of commitment to a positive food safety culture.

A.3. The Government of Alberta and/or Alberta Health Services develop additional resources such as, but not limited to, information sheets, templates (e.g., for internal auditing), checklists and logs to make practicing food safety culture easier and more accessible to operators of licensed food establishments and child care facilities.

A.4. Require licensed child care providers to develop a policy on 'outside food,' such as food brought into these facilities by parents, as part of their Early Learning and Child Care Program Plan. Policies on 'outside food' should allow for flexibility across individual facilities. It is not recommended that such policies are strictly prescribed in government legislation.

Theme B: Public Policy, Legislation and Effective Inspection Systems for Food Safety

B.1. Review the Food Retail and Foodservices Code for high-risk and key areas of food safety and revise, as needed, to ensure that all applicable food service establishments must (not should) comply with these requirements. Examples include maintaining records of sanitizer concentrations, end-point cooking temperatures and storage temperatures of high-risk foods, in fridges and freezers.

B.2. Develop clear and formalized expectations and measurable outcomes for Alberta Health Services' public health inspections. This includes risk assessment and categorization methodologies, monitoring inspection frequencies and follow-up of outstanding violations.

B.2.1. Require a higher frequency of inspections and require a rapid response to food safety concerns in all licensed child care facilities and kitchens serving those facilities (including any associated permitted food preparation areas).

B.2.2. Ensure that staffing levels are adequate to meet these expectations.

B.3. Ensure the province has the capacity to more effectively respond to public health outbreaks and take more immediate enforcement action on serious offences and repeat violations by establishing public health investigators.

- B.3.1. Establish an investigation team distinct from, but working with, the existing public health inspectors to assume responsibilities for investigating serious violations and foodborne illness outbreaks as directed by the Medical Officer of Health. These investigators must be available outside of normal working hours.
- B.3.2. Members of the investigation team are to have extensive formal training in investigations, evidence gathering, charging standards, court preparation and major case management. Consider designation public health investigators as Peace Officers.
- B.3.3. Amend the *Public Health Act* and associated regulations to allow a more clearly defined path for pursuing violations through to prosecution. This would include using the authorities within the *Provincial Offences Procedure Act* and associated regulation to immediately issue an offence notice (violation ticket) which would have a range of financial penalties, including mandatory court appearance in the cases of more serious violations or chronic offenders.
- B.3.4. Establish Standard Operating Procedures (SOPs) for AHS public health inspectors and public health investigators.
- B.3.5. Ensure AHS has a system to identify, track and prioritize follow up of operators that have a history of non-compliance with food safety requirements or who may present a risk to the health and safety of Albertans.

Theme C: System Alignment and Integration

C.1. Increase integration and alignment of Alberta Health food safety legislation (i.e., the *Public Health Act*, *Institutions Regulation*, *Food Regulation*, *Food Retail and Food Services Code*) and Jobs, Economy and Trade child care legislation (i.e., the *Early Learning and Child Care Act* and *Early Learning and Child Care Regulation*) to strengthen understanding of food safety and food handling requirements of child care providers and regulators.

- C.1.1. Integrate information and use consistent wording and definitions across Acts, regulations, guidelines, handbooks and public communications, including those developed by Alberta Health Services' Environmental Public Health.
- C.1.2. Consolidate food handling and food safety requirements from the *Institutions Regulation* into the *Food Regulation*.
- C.1.3. Within the *Early Learning and Child Care Act*, make clear reference to the requirements of food safety legislation (i.e., the *Public Health Act*, *Food Regulation*, *Food Retail and Foodservices Code*).
- C.1.4. Establish a mechanism for sharing information on food safety concerns between Jobs, Economy and Trade's licensing officers and Alberta Health Services' public health inspectors.

C.2. Ensure that provincial crisis management / response plans and protocols for foodborne illness outbreaks are developed; roles and responsibilities are well-understood; and communication channels enhanced amongst affected individuals, Alberta Health, Jobs, Economy and Trade, Alberta Health Services, licensed food establishments and child care operators. These plans and protocols must enable a timely and coordinated response to outbreak events.

- C.2.1. Have one organization/entity that is responsible for responding to outbreaks and provides clarity on reporting requirements and accountabilities of child care providers during an outbreak. This should be made public, so responsibilities and accountabilities are clear.
- C.2.2. Develop a response plan, led by the Government of Alberta, that outlines coordination of services in the event of a public health outbreak (i.e., who does what, when and how and who oversees various elements of the response) and communication with key stakeholders, including affected individuals.
- C.2.3. Develop an outbreak communication plan that outlines each partner's role, including child care operators. Review this communication plan annually so that it is up to date.
- C.2.4. Establish a post-response evaluation mechanism within Alberta to be activated following a foodborne illness outbreak.

C.3. Establish structured procedures, including but not limited to Memoranda of Understanding (MOUs), to facilitate prompt and effective information sharing among provincial and federal governments, health authorities and partner agencies, during food safety investigations and public health outbreaks.

- C.3.1. Through the Canada-Alberta Partners in Food Safety (CAPIFS) amend the Alberta Foodborne Illness and Risk Investigation Protocol (FIRIP) to include a section that outlines how the various member agencies will work collaboratively together, using a major case management model, to conduct coordinated investigations pursuant to serious public health outbreaks. Clarify when FIRIP should be activated and who can call for its activation.

C.4. Ensure that an accredited laboratory or laboratories are in place that have the capacity and expertise to assess foodborne illness and support food safety inspections and public health outbreak investigations in a timely manner. The accredited laboratory or laboratories must have the ability to:

- **Analyze environmental swabs for foodborne pathogens,**
- **Test foods for foodborne pathogens, as necessary, to support any ongoing food safety investigation, and**
- **Plan for surge capacity as needed.**

C.4.1. Provide additional training to AHS public health inspectors to improve sample collection processes.

C.5. Support innovative research and models of care to leverage Alberta's expertise in STEC infections and other foodborne pathogens to optimize acute and long-term clinical outcomes of infected children and to improve infrastructure to prevent and respond to future outbreaks.

C.5.1. Create a STEC Centre of Excellence designed to ensure that all STEC infected children anywhere in the province receive state-of-the-art care as efficiently as possible. This will minimize the frequency and severity of acute complications and ensure all children are monitored to initiate treatment and minimize acute and long-term complications.

APPENDIX H: REFERENCES

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