

# Pan-Canadian Poison Centres 2020 Annual Report



Canadian  
Association for  
**Poison  
Centres and  
Clinical  
Toxicology**



Association  
canadienne pour  
**centres  
antipoison et  
toxicologie  
clinique**

# Pan-Canadian Poison Centres 2020 Annual Report

This report was developed  
in coordination with:



Health  
Canada Santé  
Canada



Canadian  
Association for  
Poison  
Centres and  
Clinical  
Toxicology



Association  
canadienne pour  
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ATLANTIC CANADA  
POISON CENTRE

# “There is strength in numbers”

## A message from the President

The Canadian Association of Poison Centres and Clinical Toxicologists (CAPCCT) is pleased to contribute to this report, the first of its kind since 1987. This report will provide valuable data and expertise collected from Canada’s poison centres on exposure and hazards for people in Canada, so that all partners can be better equipped with the information they need.



The Association is a voluntary organization whose members include employees of the five Canadian poison centres, their specialists, toxicologists, information support experts, epidemiologists and their clerical staff, as well as those who have retired from these roles and toxicologists not associated with poison centres across Canada.

Association members continue to be at the forefront of poison prevention by providing 24/7 treatment advice, detecting safety issues and concerning trends and providing subject matter expertise to inform public health, regulatory, emergency management and industry interventions.

In fact, most of the poison centre consultations are done with people calling from home and the majority are kept at home, guided by advice given by poison centre specialists. However, these exposures are never brought to the attention of any other health care team. Thanks to the foresight of the team of the Chemical Emergency Management and Toxicovigilance Division of Health Canada, Toxicovigilance Canada is now a reality.

Toxicovigilance Canada is a pan-Canadian network fostering collaboration and knowledge exchange across sectors and jurisdictions to inform prevention, treatment and harm reduction

of drug, poison and chemical exposures. Now, poison centres can report through Toxicovigilance Canada, and our partners at Health Canada, legislators and public health professionals are better aware of these hazards.

There have been many changes in the care of the poisoned patient over the decades, from the removal of stomach pumping and making children vomit, to the development of specific antidotes. Similarly, notable Canadian poison centre practitioners have developed child-resistant containers and federal legislation has supported mandatory labelling of product ingredients and restricted the volume of various substances available in products meant for children. All these contributions have helped to decrease poisonings experienced by Canadians.

There is always more work to be done, as new products, technology and medications are introduced into the market. But there is strength in numbers. This report paints a broader picture

than the occasional one-off local contamination of drug supply on the streets of a major city, or the inadvertent ingestion of household cleaning products by children in their home, for example. It presents Canada-wide statistics on poisonings.

Additionally, through Toxicovigilance Canada, Canadian poison centres and the CAPCCT are working toward a system to track exposures experienced by Canadians in real-time, day to day. Soon, we will be able to identify signals at the national level, investigate them, act to warn people in Canada and remove the hazards.

The Association also recognizes the important partnership that poison centres have in Parachute. Since its establishment 10 years ago, Parachute has become the eminent injury prevention organization in Canada and has always supported poison prevention messaging, research and collaboration. We thank them for their work and assistance in offering this publication to Canadians.



**Dr. Margaret Thompson, MD, FRCPC**


*President, Canadian Association of Poison Centres  
and Clinical Toxicology*

*Medical Director, Ontario, Manitoba & Nunavut Poison Centres*

# “Poison centres save lives”

## A message from Health Canada

Poison centres are the 24/7 focal point for medical advice on poison exposures. I am pleased to present the Pan-Canadian Poison Centres 2020 Annual Report, which makes information from Canadian poison centres available to the public and highlights the ongoing need for collaboration and action to reduce the burden of poisonings in Canada.



I would like to thank all of the organizations and individuals that contributed to this important initiative, including the poison centres, the Canadian Association of Poison Centres and Clinical Toxicologists, and Parachute. In particular, I extend my gratitude to the specialists in poison information and medical toxicologists from across the country for the incredible work in providing medical treatment advice to health professionals and Canadians in their time of need. Poison centres save lives by providing guidance that expedites patient recovery. Their management of cases remotely enhances health services capacity and resources for Canadians to access timely treatment advice.

As the roles and responsibilities to address toxic risks are shared across several sectors and jurisdictions, close collaboration is essential to help Canadians maintain and protect their health. In 2018, Health Canada established the Toxicovigilance Canada network to foster pan-Canadian collaboration to facilitate timely detection, evaluation and action to prevent, treat, reduce harm, and manage risks of toxic exposures to drugs and chemicals. In the same year, Health Canada also implemented the Canadian Surveillance System for Poison Information -- a core component of the Toxicovigilance Canada network that enables timely access to poison centre information by network members.

In 2020, Toxicovigilance Canada members contributed to the timely sharing of real world evidence and expertise that resulted in the release of multiple public advisories, a voluntary stop sale of a hazardous product, amendments to packaging and labeling requirements along with considerable collaboration on poison prevention outreach. On behalf of Health Canada, I would like to thank the nearly 500 members of Toxicovigilance Canada for their ongoing dedication and commitment to this work.

Health Canada is committed to continuing this collaboration with our Toxicovigilance Canada partners and providing leadership to support actions that can reduce the burden of poisonings in Canada.



**Isabella Chan**

*Assistant Deputy Minister, Healthy Environments and Consumer Safety Branch*

Health Canada, Government of Canada



## Poisoning is a significant public health and safety issue in Canada

In 2018, unintentional poisonings resulted in 3,477 deaths, 10,772 hospitalizations and 79,231 emergency department visits. Poisoning is the third-leading cause of injury-related death for Canadians and the top cause of injury death for those aged 24 to 65. Poisoning incidents cost the Canadian economy \$2.6 billion in 2018, including \$456 million in direct health-care system costs (Parachute, 2021). Poison centres are essential in reducing direct health-care costs of poisonings as the majority of cases can be treated over the phone without a visit to a physician or hospital (Galvao et al. 2012).

Surveillance, information exchange and collaboration across a network of partners is key to reducing the morbidity and mortality caused by poisonings. Poison centres are a source of specialized expertise and guidance and the data collected by centres are a critical source of information that can be used for public health purposes. This Pan-Canadian Poison Centres Annual Report provides an overview of the volume and nature of cases managed by poison centres and highlights the role of these centres in poisoning prevention efforts.



## About Poison Centres in Canada

Poison centres are the key point of contact for the general public and health professionals seeking medical advice on poisonings. Canada has five provincially and territorially funded poison centres, operating 24 hours a day, seven days a week:

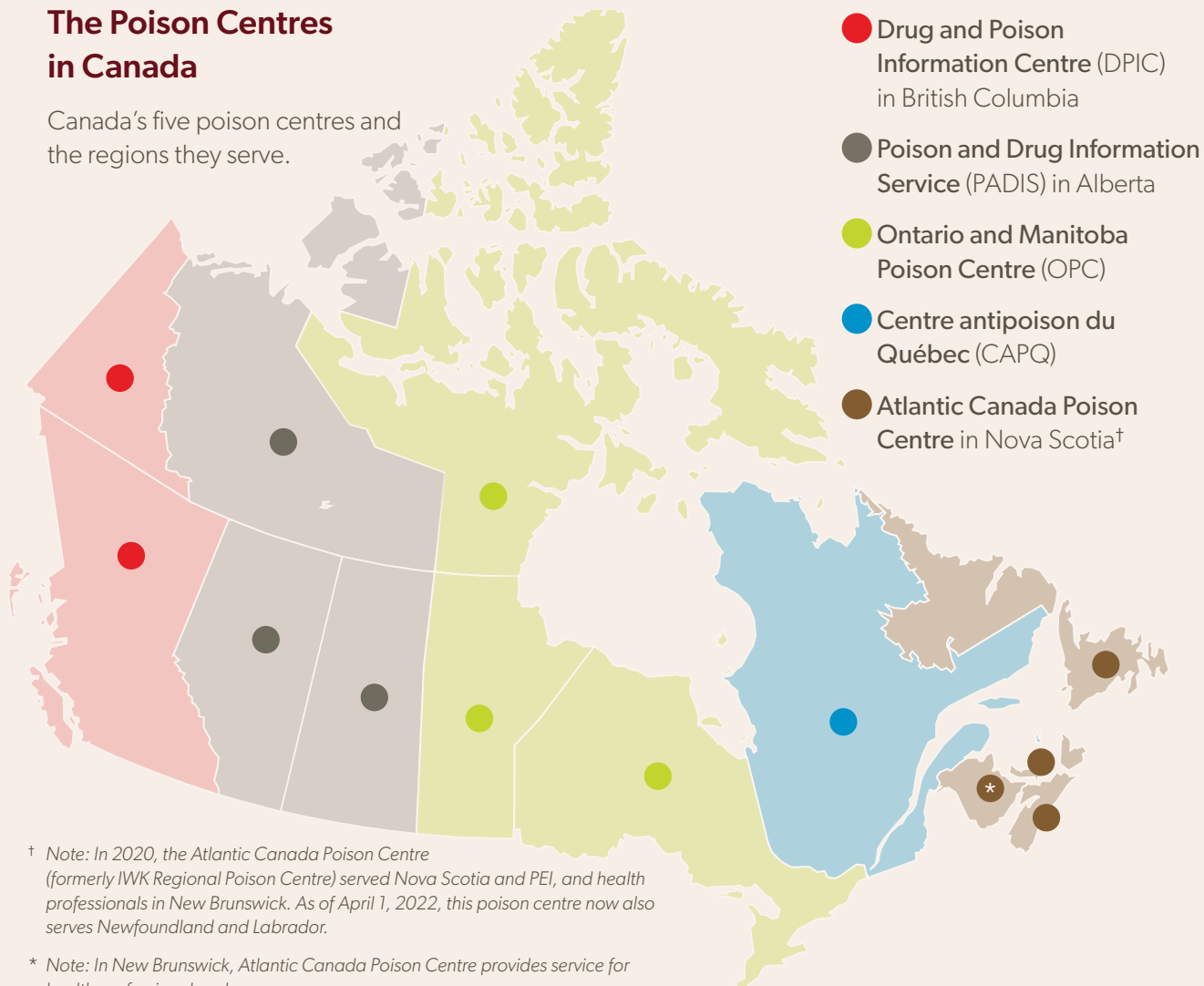
- **Drug and Poison Information Centre (DPIC)**  
in British Columbia
- **Poison and Drug Information Service (PADIS)**  
in Alberta
- **Ontario and Manitoba Poison Centre (OPC)**
- **Centre antipoison du Québec (CAPQ)**
- **Atlantic Canada Poison Centre**  
(formerly IWK Regional Poison Centre)  
in Nova Scotia

Each centre is staffed with medical toxicologists, registered nurses and/or pharmacists certified by the American Association of Poison Control Centers (AAPCC) as specialists in poison information, who become eligible for certification after approximately two years of full-time employment at a poison centre, handling 2,000 human exposure calls and logging 1,200 hours.

Canadian poison centres manage an average of 200,000 cases per year.

## The Poison Centres in Canada

Canada's five poison centres and the regions they serve.



## The Canadian Surveillance System for Poison Information

The Canadian Surveillance System for Poison Information (CSSPI) initiative started in 2014 with Health Canada, in collaboration with Canadian poison centres and federal, provincial and territorial health partners to establish a pan-Canadian Toxicovigilance system for poison information. CSSPI was created because all collaborators agreed that Canada required a national system to access poison centre information and expertise.

All partners worked together to identify requirements, analyze, and pilot solutions for timely detection of safety concerns, data quality to inform health protection, and development of tools to foster a strong collaboration among partners. This approach would inform poison prevention, treatment, harm reduction and risk management in Canada.



As a result, CSSPI implementation began in 2018 with the following goals:

- Fostering collaboration across multiple agencies, sectors and jurisdiction, including the formation of a Toxicovigilance Canada network.
- Developing the CSSPI surveillance system to aggregate, analyze and interpret poison centre data as well as establishing a process for front line poison centre specialists to provide timely notifications when they identify safety concerns.

- Managing pan-Canadian poison centre data requests for public health and regulatory partners to inform interventions that best protect Canadians from poisonings.

CSSPI provides detection of novel or ongoing poisoning trends and facilitates collaborative interventions based on real world evidence in order to protect the health of Canadians.

## Toxicovigilance Canada

According to the World Health Organization, toxicovigilance is “the active process of identifying and evaluating the toxic risks existing in a community and evaluating the measures taken to reduce or eliminate them” (2012). Risks of public health concern can include poisoning outbreaks due to contamination, emergence of novel drugs, mass chemical exposures and unusual patterns or trends. Toxicovigilance Canada is a pan-Canadian network aimed at enhancing capacity for the timely detection, analysis and response to poisonings and substance use that may lead to harms and toxic chemical exposures. The network has nearly 500 members from multiple sectors including poison centres, toxicology labs, public health agencies, health authorities and non-profit organizations.

### References

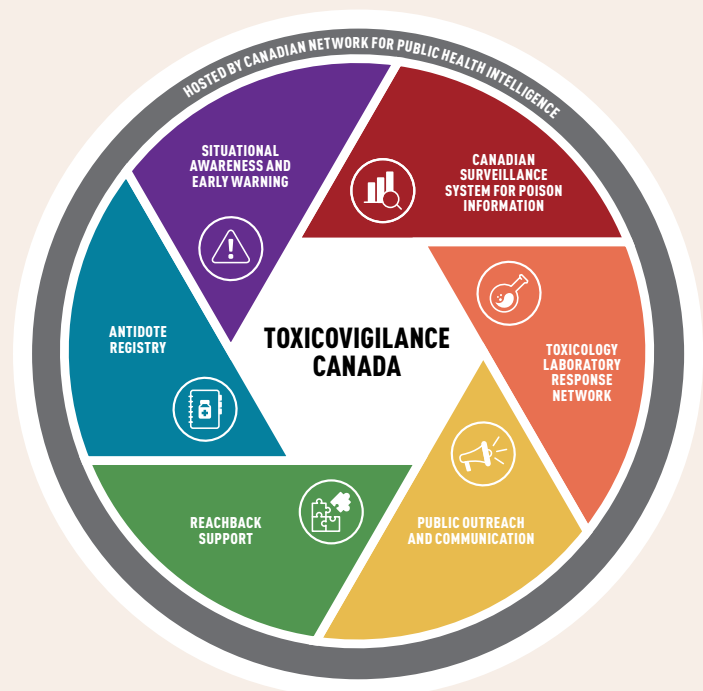
Galvao, T. F., Silva, E. N., Silva, M. T., Bronstein, A. C., & Pereira, M. G. (2012). Economic evaluation of poison centers: a systematic review. *International journal of technology assessment in health care*, 28(2), 86–92. <https://doi.org/10.1017/S0266462312000116>

Parachute. (2021). Potential lost, potential for change: The Cost of Injury in Canada. [www.parachute.ca/costofinjury](http://www.parachute.ca/costofinjury)

World Health Organization. (2020). *Guidelines for establishing a poison centre*. <https://www.who.int/publications/i/item/9789240009523>

World Health Organization. (2012). Toxicovigilance. <https://www.who.int/publications/m/item/toxicovigilance>


## The components of Toxicovigilance Canada



# 2020 Poison Centre Data

## About the data in this report

Data collected by poison centres is entered into an electronic case management system based on the poisoning information reported by the caller and collected by a certified Specialist of Poison Information (SPI).



The caller may be the person who was exposed, but may also be a family member or friend, or medical personnel caring for the exposed person. Sometimes the caller may have limited information about the incident, which impacts the data that can be collected. For example, the sex of the exposed person will be coded based on what is reported to the SPI and will generally reflect their presenting gender, unless the caller reports otherwise.

All Canadian poison centres follow the National Poison Data System (NPDS) coding guidelines published by the American Association of Poison Control Centers. These guidelines are intended to promote coding uniformity among regional poison centres on how to capture data on various poisoning exposure scenarios, such as how to categorize medical outcomes of poisonings

(e.g., no effect, minor or major effect, potentially toxic exposure, death). The compliancy and standardization in coding practice across centres produces high quality, accurate national poison data.

Generally, in Canada, it is not mandatory to report poisonings; therefore, calls made to a poison centre rely on knowledge about their services and willingness to call. Calls to poison centres are thus not fully representative of the population but reflect general patterns over time and across groups.

Data from each of the five Canadian poison centres were requested and aggregated to the national level to compile this report. The year 2020 is the most current for which complete pan-Canadian poison centre data in digital format were available at the time of writing.

## In 2020, Canada's poison centres managed 215,589 cases



**186,739**  
Human exposure cases  
(confirmed or potential)



**28,850**  
Non-exposures and  
other cases

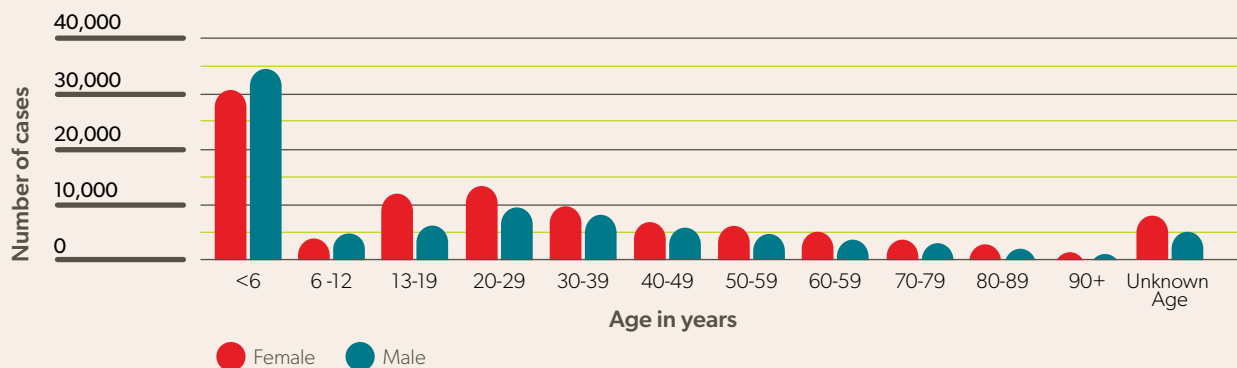
While all poison centres handle human exposure cases, other services offered vary by centre. Non-exposures may include: drug identification, drug information, environmental information, medical information, occupational information, poison information, teratogenicity info, other info, administrative, caller referral, prevention/safety, and substance abuse. Poison centres in Canada do not seek to manage animal exposure cases; however, they do receive such calls from the public.

## Who poison centres help

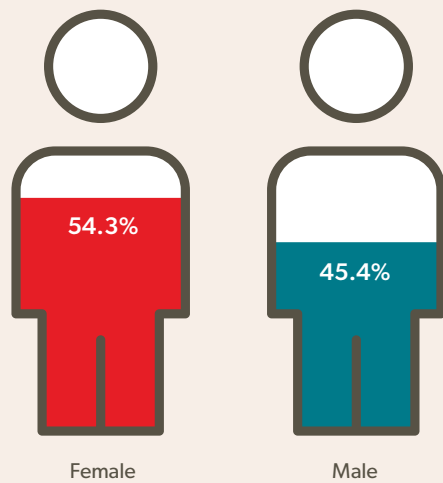
Poison centres manage exposure cases for Canadians of all ages. In 2020, 64,527 exposure cases - more than one-third - involved a child aged 5 or under. The risk of death due to poisoning begins to increase at age 15, with mortality rates peaking between the ages of 25 and 50. In 2020, poison centres managed 22,525 (12 per cent) cases for young adults aged 20 to 29 and 40,609 cases (22 per cent) of adults aged 30 to 59.

Poison centres serve the public as well as health professionals seeking specialized advice for patient care. In 2020, 64 per cent of exposure cases involved a person calling a poison centre from their home. In 30 per cent of exposure cases, the caller was from a healthcare facility.

## Exposure cases by age and sex, 2020

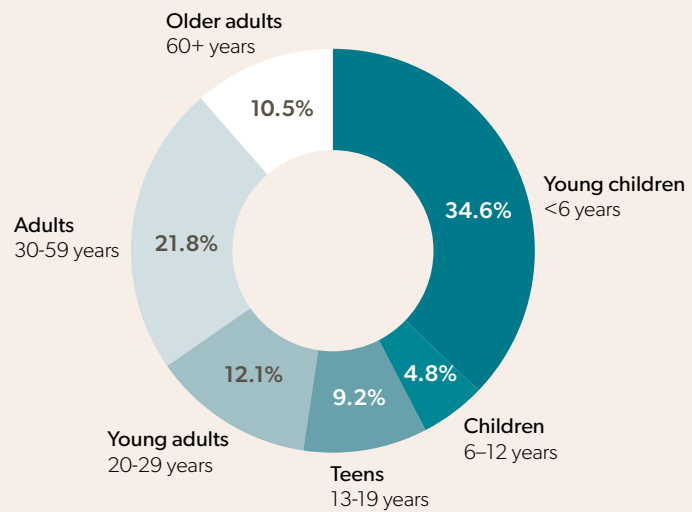


## Exposure cases by sex, as reported by the caller, 2020



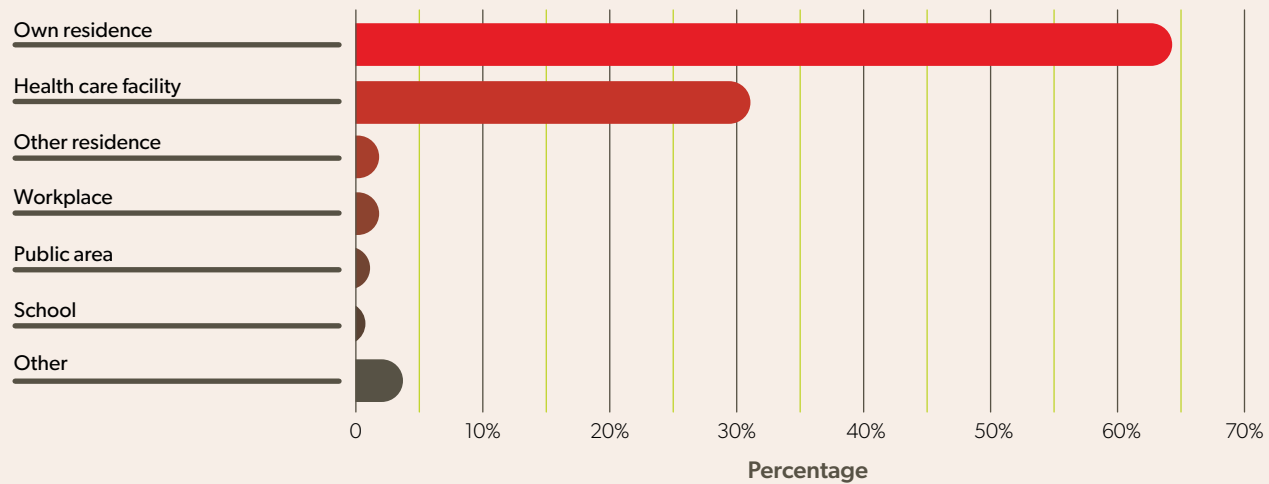
Unknown: 0.3%

## Exposure cases by age category, 2020



Unknown: 7.0%

## Exposure cases by caller location, 2020



**Own residence** includes calls redirected to poison centres from 811 health lines.

**Other residence** refers to any home that is not the caller's home.

**Public area** includes public locations such as parks, stores, theatres and event spaces.

**Total percentage by caller location** is representative of four out of the five poison centres in Canada. One poison centre does not collect caller location information.



## Why Canadians call poison centres

When managing a case, poison centre specialists collect information about the incident. This information is valuable for understanding how and why exposures occur, identifying concerning trends and public safety concerns and informing prevention efforts.

### Types of incidents

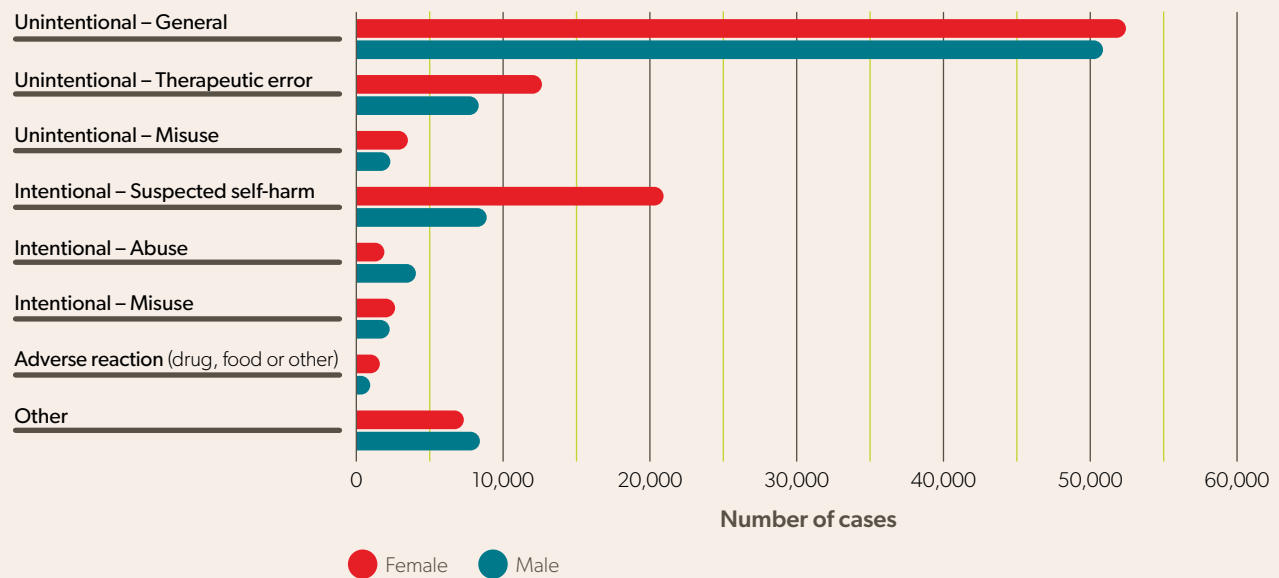
<b>138,893</b> (74.5%)	<b>47,466</b> (25.5%)
Unintentional	Intentional

Most exposure cases managed by poison centres are unintentional incidents. In 2020:

- **20,961 cases were related to therapeutic error.** For example, a person being given the wrong dose of a medication or medicine being administered to the wrong person.
- **5,231 cases were related to unintentional misuse of non-pharmaceutical substances.** For example, being exposed to toxic gas from mixing cleaning chemicals.
- **102,763 cases were general unintentional incidents.** These are incidents that don't fit other, specific definitions like the ones above and include most cases of young children getting into medications, cleaners or other substances stored in the home.

Intentional exposures are incidents resulting from a purposeful action. In 2020, poison centres managed 30,331 cases resulting from suspected substance- and toxin-related self-harm. In 71 per cent of these cases, the person exposed was female. Cases categorized as self-harm include incidents where an intent to abuse or misuse substances or medications was apparent.

### Exposure cases by reason of calling, 2020



Other includes Contamination/Tampering; Malicious; Withdrawal; Unintentional - Environmental; Unintentional - Occupational; Unintentional - Bite/Sting; Unintentional - Food Poisoning; Unintentional - Unknown; Intentional - Unknown; Unknown reasons; N/A



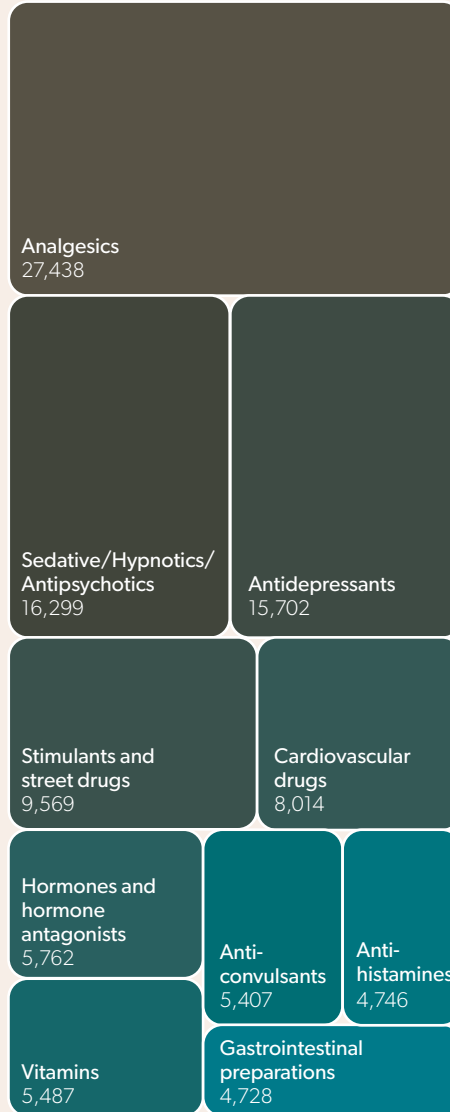
## Types of substances

In 2020, the most common substances involved in exposure cases managed by poison centres were medications for pain relief (analgesics) and household cleaning substances.

### Exposures: Top 5 substances

- 1. Analgesics**  
27,438 (14.7%)
- 2. Household cleaning substances**  
20,821 (11.2%)
- 3. Sedatives/hypnotics/antipsychotics**  
16,299 (8.7%)
- 4. Antidepressants**  
15,702 (8.4%)
- 5. Cosmetics/personal care products**  
14,142 (7.6%)

### Drug Exposures: Top 10 substances, 2020



### Non-Drug Exposures: Top 10 substances, 2020



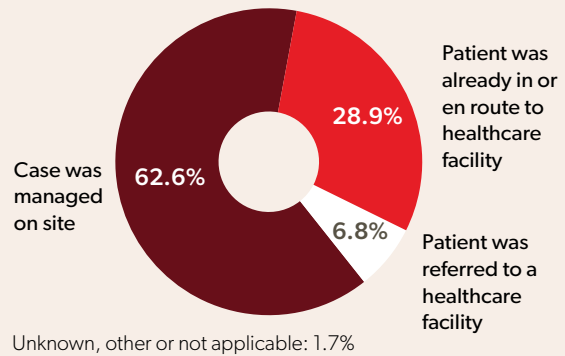


## Outcomes after Canadians call poison centres

Most poisoning exposure cases are managed at home, without requiring medical attention at a hospital, clinic or doctor’s office. Poison centre staff provide guidance and reassurance to Canadians while preventing unnecessary strain on healthcare resources.

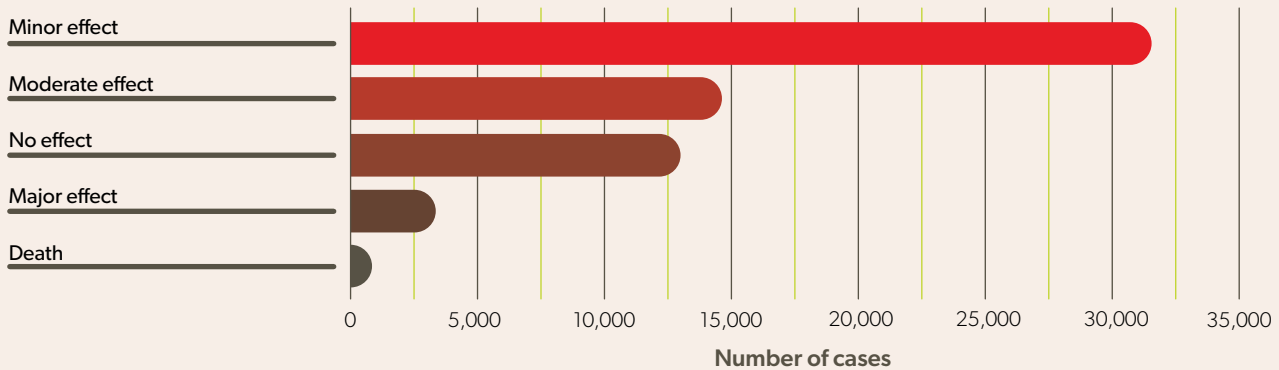
When cases are managed at home – more than 60 per cent of cases – a benign outcome is assumed. Where possible, poison centre staff follow cases where the patient is in, en route to, or referred to a health care facility until the patient’s medical outcome is known. In 2020, outcomes were known for one-third of all exposure cases handled by poison centres. For half of these, the exposure

### Exposure cases by patient flow, 2020



resulted in minor effects, 24 per cent involved moderate effects and 21 per cent led to no effects. In 207 cases (0.3 per cent), the patient died because of the exposure or complications directly related to it.

### Exposure cases by medical outcome, 2020



This chart excludes instances where the case was not followed to a known medical outcome and minimal clinical effects were possible, not followed and judged as a non-toxic exposure and cases where the exposure was deemed probably not responsible for the effect(s). The total number of excluded cases is 111,450.

## Medical outcomes explained

Here are examples of potential clinical effects from poisoning exposures:

#### No effect

No symptoms developed due to the exposure.

#### Minor effect

Minor symptoms such as skin irritation, drowsiness or mild stomach upset.

#### Moderate effect

More pronounced symptoms such as high fever, low blood pressure or dehydration.

#### Major effect

Life-threatening symptoms such as seizures, cardiac arrest or coma.

#### Death

Cases where the patient dies as a direct result or direct complication of the exposure.

# From information to impact:

## Mobilizing poison centre data and expertise

Poison centre data and expertise provide critical information used to identify poisoning risks in the community, inform regulatory action, update professional knowledge, and educate and protect the public.

In 2020, Canada's Poison Centres provided data and expertise to Health Canada on priority health issues, which supported policy change

and regulatory action, led to early warnings and alerting of safety signals, and resulted in three public advisories issued by Health Canada.

**Recalls and safety alerts**

Public advisory

### Protect yourself and your family from poisonings: always read and follow the label directions when using hand sanitizers, disinfectants, household cleaning products and bleaches

**Starting date:** May 5, 2020  
**Posting date:** May 5, 2020  
**Type of communication:** Advisory  
**Subcategory:** Drugs, Chemicals  
**Source of recall:** Health Canada  
**Issue:** Important Safety Information  
**Audience:** General Public  
**Identification number:** RA-72953  
**Last updated:** 2020-06-15

**Summary**

- **Product:** Various hand sanitizers, disinfectants, household cleaning products and bleaches.
- **Issue:** Health Canada is warning Canadians about the risks of poisoning when improperly using hand sanitizers, disinfectants, household cleaning products and bleaches.
- **What to do:** Always read and follow the directions on product labels.

**Recalls and safety alerts**

Public advisory

### Risk of poisoning from hand sanitizers sold in beverage containers

**Starting date:** June 10, 2020  
**Posting date:** June 10, 2020  
**Type of communication:** Advisory  
**Subcategory:** Drugs, Natural health products  
**Source of recall:** Health Canada  
**Issue:** Important Safety Information  
**Audience:** General Public  
**Identification number:** RA-73291  
**Last updated:** 2020-06-15

**Summary**

- **Product:** Hand sanitizers sold in beverage containers.
- **Issue:** Some manufacturers of hand sanitizers are using packaging that is commonly used for beverages. This could confuse some consumers, who may mistake hand sanitizer for water or other beverages.
- **What to do:** Always follow the label directions on hand sanitizers. Store these products away from beverages, and keep them out of the reach of children. Always supervise children when they use hand sanitizer. If hand sanitizer is swallowed, call a poison control centre or seek medical attention right away.

**Recalls and safety alerts**

Public advisory

### Accidental ingestion of edible cannabis products causing serious harm to children

**Starting date:** August 12, 2020  
**Posting date:** August 13, 2020  
**Type of communication:** Advisory  
**Subcategory:** Affects children, pregnant or breast feeding women, Cannabis  
**Source of recall:** Health Canada  
**Issue:** Poisoning Hazard, Important Safety Information, Labeling and Packaging, Unauthorised products  
**Audience:** General Public  
**Identification number:** RA-73669  
**Last updated:** 2020-08-13

**Summary**

- **Product:** Edible cannabis products
- **Issue:** Children are accidentally ingesting illegal edible cannabis products and are experiencing serious harm resulting in hospitalization.
- **What to do:** Store cannabis products, whether purchased or homemade, securely and out of reach of children and young persons. Purchase regulated cannabis products only from provincially and territorially licensed retailers.

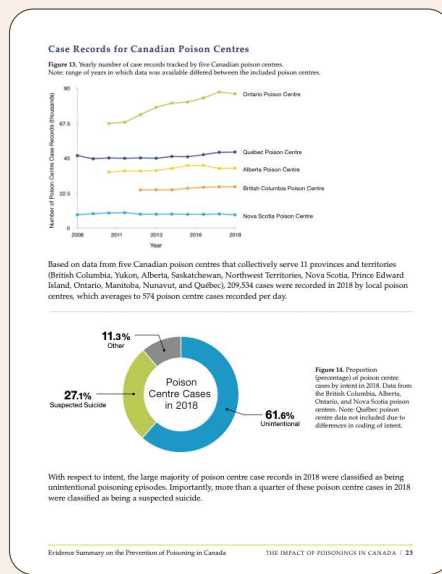
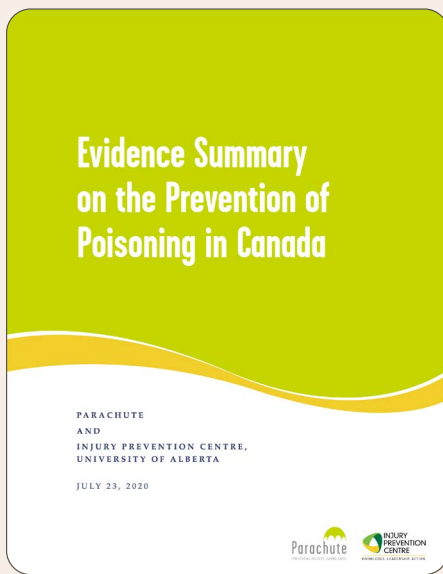




# Publications

Poison centres contributed data and expertise to support two publications in 2020. The **Evidence Summary on the Prevention of Poisoning in Canada** was published in July by Parachute and the Injury Prevention Centre, University of Alberta, to describe the current poisoning situation in Canada across all age groups and contexts.

Poison centre data were presented alongside other health system data, such as hospitalizations and deaths, to reflect the growing magnitude of the issue, as well as discussion of emerging issues, poisoning prevention best practices and current poisoning prevention initiatives across the country.



**At-a-glance - Increases in exposure calls related to selected cleaners and disinfectants at the onset of the COVID-19 pandemic: data from Canadian poison centres** was published in the peer-reviewed journal, *Health Promotion and Chronic Disease Prevention Canada*, in September. The paper highlighted concerning trends in exposures related to cleaning products early in the COVID-19 pandemic, which informed the communication of safety messaging to the Canadian public.

**At-a-glance**

**Increases in exposure calls related to selected cleaners and disinfectants at the onset of the COVID-19 pandemic: data from Canadian poison centres**

Abdool Yasenov III, PhD (1); Deborah Weiss, PhD (1); Sandy Remer, MD (1,2); Nina Dobbin, MSc (1,3); Morgan MacNeill, MSc (1,4); Bjana Roglic, MA (1); Dennis Leong, BSc (Pharm) (3); Victoria Wan, MSc (3); Laurie Meltzer, RN (4); Guillaume Bégin, MSc (5); Margaret Thompson, MD (2); Brooke Burton, BSc (6); James Hardy, BSc (7); Shadi Perovic, PhD (8); Alyson Smith, RN (8); Richard Wortman, BA (7)

Published online September 23, 2020

**Abstract**

Little is known about the use or misuse of cleaning products during the COVID-19 pandemic. We compiled data from January to June in 2019 and 2020 from Canadian poison centres, and report on calls regarding selected cleaning products and present year-over-year percentage change. There were 3408 (42%) calls related to bleach; 2815 (23%) to hand sanitizers; 1807 (21%) to disinfectants; 961 (23%) to chlorine gas; and 148 (2%) to chlorine gas. An increase in calls occurred in conjunction with the onset of COVID-19, with the largest increase occurring in March. Timely access to Canadian poison centre data facilitated early communication of safety messaging for dissemination to the public.

**Introduction**

The first Canadian case of novel coronavirus disease 2019 (COVID-19), caused by infection with SARS-CoV-2, was reported on 15 January, 2020, and at the time of writing in August 2020, 27 700 COVID-19 laboratory-confirmed cases had been reported, including 6916 deaths.<sup>1</sup> Through February and March 2020, messaging from Canadian public health officials increasingly focused on strategies to reduce the spread of SARS-CoV-2, including physical distancing, proper cough etiquette, hand-washing, use of alcohol-based hand sanitizers and cleaning and disinfecting of high-touch surfaces.<sup>2</sup> On 11 March, 2020, the World Health Organization formally declared the COVID-19 epidemic to be a global pandemic,<sup>3</sup> and in the following days, federal, provincial and territorial and municipal authorities across Canada implemented stringent physical distancing measures, including travel restrictions, the temporary closure of businesses and schools, and the cancellation of nonurgent medical appointments and procedures. Daily messages from public health officials at all levels of government reinforced the urgency of taking steps to limit the spread of SARS-CoV-2.

With an increased focus on cleaning and disinfecting, comes the possibility of increased exposure to chemicals in cleaning products, more specifically, to the fumes and by-products created by the inappropriate combination of these products.<sup>4</sup> In a report from the US Centers for Disease Control and Prevention, the authors reported an increase in calls to poison centres related to exposure to cleaners and disinfectants for the first three months of 2020, compared to the same period in 2019. While increases in exposures were reported for all age groups, exposures in young children

**Highlights**

- The Canadian Surveillance System for Poison Information (CSSPI) led by Health Canada is a developing network of poison centres, health authorities and regulatory agencies that facilitates early detection of poisoning incidents and sharing at the national level to inform harm reduction interventions.
- In response to the COVID-19 pandemic, concerns were raised over the potential for misuse of cleaning products and disinfectants; the CSSPI network monitored and assessed these concerns.
- An overall increase in calls about using cleaning products and disinfectants occurred concurrently with the pandemic, with percentage increases for selected products as high as 60% compared to the same period in the previous year.

**Health Promotion and Chronic Disease Prevention in Canada**  
Research, Policy and Practice

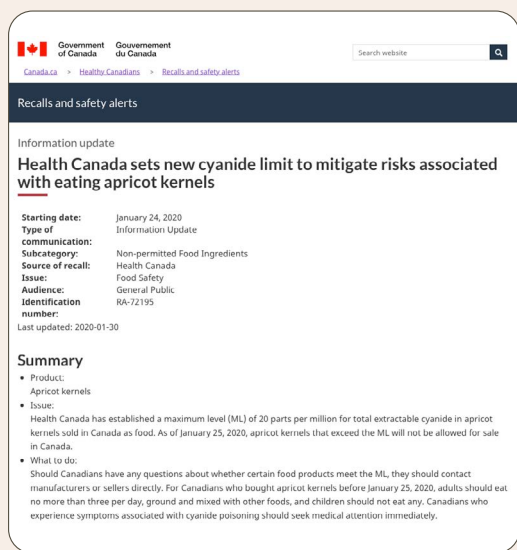
Vol 21, No 1, January 2021

# Policy change

## Hand sanitizer packaging and labelling

Increased demand for alcohol-based hand sanitizers due to the COVID-19 pandemic led to shortages of sanitizer and sanitizer packaging. As a result, beverage containers such as water bottles and wine bottles were used for packaging. With data from Canada's poison centres showing an increased number of reported incidents related to hand sanitizer exposures compared

to the previous year, amendments to policy and regulatory requirements on packaging and labeling for these products were developed and put into effect in October 2020. Requirements include simple and symbol-based warning labels and acceptable closures to prevent unintentional ingestion and poisoning.



## Apricot kernel cyanide limits

Apricot kernels, the seeds found in apricot pits, naturally contain cyanogenic glycosides, predominantly amygdalin, which can release cyanide after being eaten. While the human body can metabolize small amounts of cyanide, larger amounts over a short period of time can lead to acute cyanide poisoning. In 2018, in order to support compliance and enforcement activities by the Canadian Food Inspection Agency (CFIA), the Bureau of Chemical Safety (BCS) updated its health risk assessment for cyanide exposure from apricot kernels. As part of this update, aggregate data on 195 inquiries received by poison centres

(2013 to 2017) relating to the consumption of apricot kernels was compiled by CSSPI at the request of BCS. While no severe health effects were reported, evidence suggested that the consumer was not aware that the apricot kernels contained potentially elevated levels of cyanogenic glycosides/cyanide. Based on the updated health risk assessment including the information from poison centres, Health Canada proposed further risk management actions for cyanide in apricot kernels. In January 2020, Health Canada established a maximum level (ML) of 20 ppm total extractable cyanide in apricot kernels sold as food. This ML allows Canadians choosing to consume apricot kernels to do so in a similar fashion as other more common types of seeds and nuts sold in Canada, while protecting them from the risk of cyanide poisoning. Apricot kernels that do not meet Health Canada's ML are not permitted for sale in Canada. Since the ML of 20 ppm was established, CFIA has worked with industry to recall products, which were non-compliant ([Government of Canada Recalls and Safety Alerts](#)). For further information, consult [Cyanide in apricot kernels](#) published by Health Canada.



The poison prevention community in action:

## Public safety during the COVID-19 pandemic

In March 2020, due to the COVID-19 pandemic, Canadians were spending more time at home and the combined use of cleaning products, disinfectants, bleach and hand sanitizers to prevent infection increased dramatically. Canadian poison centres and the Canadian Surveillance System for Poison Information (CSSPI) detected a spike of chemical exposure cases associated with cleaning and disinfection products, such as bleach and hand sanitizers. Timely sharing of evidence and expertise resulted in the release of multiple public advisories, recalls, amendments to packaging and labelling requirements for hand sanitizer products and the provision of data for media and outreach activities. When issues of public safety arise, timely communication to the public using multiple channels is important to raise awareness. In addition to collaborating with government agencies, poison centres work with provincial and national injury prevention partners to take collective action, determining key messages and disseminating them in the community.

In the summer of 2020, a children's hand sanitizer product was detected on the Canadian market. The product packaging featured popular children's shows and movies. There was one major problem: The package could easily be mistaken for applesauce, yogurt or other children's snacks that commonly come in a squeeze pouch. Due to the alcohol content in the sanitizer, a child mistakenly eating the contents could be seriously harmed. In August 2020, the first known exposure involving one of these products was reported by a poison centre to Health Canada. With this single known case, Health Canada engaged the industry partner on the issue and they voluntarily issued a stop sale and stop distribution of the product within five days. The collective action of poison centres, Health Canada and the Toxicovigilance Canada network resulted in the product being voluntarily removed from sale in Canada.

# Conclusion

Data highlighted in this report support the continued value of poison centres as vital sources of specialized expertise and guidance for the public and healthcare professionals. Poisonings continue to be a major public health concern in Canada, as demonstrated by the 2020 trends in unintentional poisoning and self-harm-related poisonings.



Operating 24/7 across Canada, poison centres are critical resources for healthcare advice as well as surveillance and data collection. Poison centres are demonstrated and effective instigators of collaborative public health action to educate and protect the public, inform regulatory action and enhance professional knowledge. Most poisoning exposure cases reported to poison centres are managed at home, without requiring medical attention at a hospital, clinic or doctor's office. Poison centre staff provide guidance and reassurance to Canadians while preventing unnecessary strain on healthcare resources.

Poison centres also function as early-warning "canaries in the coal mine" when it comes to new issues related to poisonings. These first show up in Canada when individuals call poison centres,

seeking help. Alerts raised by poison centres about a new danger can then translate into preventive action rolling out across the country, as seen in 2020 with the hand-sanitizer packs that mimicked squeeze pouches for child snacks.

No doubt there will be fresh challenges ahead as new products, medications and trends emerge in Canada that have the capacity to poison. Poison centres and their partners are committed to reducing the burden of poisonings, both to the Canadian public and to our healthcare system.

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