

# Newfoundland and Labrador Communicable Disease Surveillance

2023 Annual Report

Department of Health and Community Services

# A Message from the Chief Medical Officer of Health

I am pleased to publish the 2023 Newfoundland and Labrador Communicable Disease Surveillance report in accordance with paragraph 9(3)(j) of the **Public Health Protection and Promotion Act**.

Health surveillance is an essential function of the public health system. The assessment of epidemiology is essential to gain an understanding of the determinants of health. The recent COVID-19 pandemic highlights the importance of communicable disease surveillance and epidemiology to protecting the health of communities.

In the Chief Public Health Officer's 2021 Report on the State of Public Health in Canada, *A Vision to Transform Canada's Public Health System*, several areas were highlighted as the way forward for Canada's public health system including the need for improved tools and sustainable funding. In the context of Newfoundland and Labrador, an improved, modern, interoperable communicable disease information system is required to better serve communities. Improving the quality and type of data collected would allow for a deeper understanding of how the social determinants of health affect the population of this province.

The following report will provide insight into communicable disease trends seen throughout 2023. Having a thorough understanding of our health trends can help to build stronger communities. We must invest in improved, modern public health tools to build a resilient Public Health system in Newfoundland and Labrador.



Dr. Janice Fitzgerald, Chief Medical Officer of Health



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# Section 1: Introduction

## **Introduction to Provincial Communicable Disease Surveillance**

Health surveillance is an essential function of public health. The collection and analysis of surveillance data allows for the assessment of trends in communicable disease epidemiology and for appropriate resource allocation.

## **Authority**

The **Public Health Protection and Promotion Act (PHPPA)** constitutes the statutory basis for the surveillance of communicable diseases in Newfoundland and Labrador.

The Minister of Health and Community Services has overall responsibility for the PHPPA and has several duties and powers under the Act. The Chief Medical Officer of Health (CMOH) and Regional Medical Officers of Health (RMOH) within the Provincial Health Authority (NLHS) are also responsible for exercising certain powers and discharging duties under the PHPPA.

## **Purpose**

Under the **Public Health Protection and Promotion Act**, all notifiable diseases are required to be reported to the CMOH or an RMOH. The CMOH must prepare and publish an annual report within six months of the end of the year with respect to the reportable events, outbreaks, public health emergencies, and number and results of inspections conducted under the PHPPA during the year (paragraph 9(3)(j)). The purpose of this report is to fulfill this statutory duty for 2023.

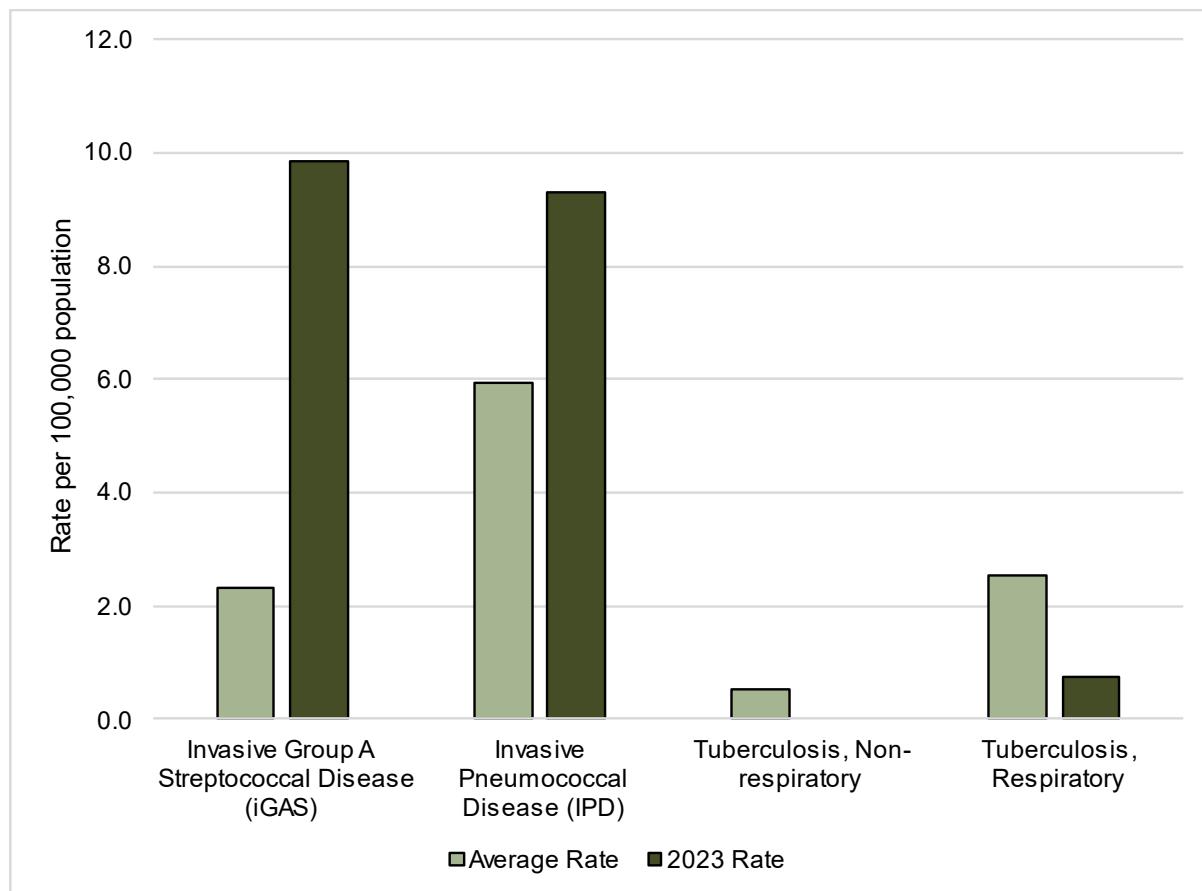
## Section 2: Highlights

The following section outlines notable communicable disease trends for 2023, categorized by disease type.

### 2.1 Diseases Transmitted via Direct Contact and the Respiratory Route

In 2023, incidence rates of invasive group A streptococcal disease (iGAS) and invasive pneumococcal disease (IPD) were higher compared to the five-year average rate. Lower incidence rates of tuberculosis (both respiratory and non-respiratory) were observed in 2023, compared to the five-year average rate.

Figure 1. Average Rate<sup>1</sup> Compared with 2023 Rate, Diseases Transmitted via Direct Contact and the Respiratory Route

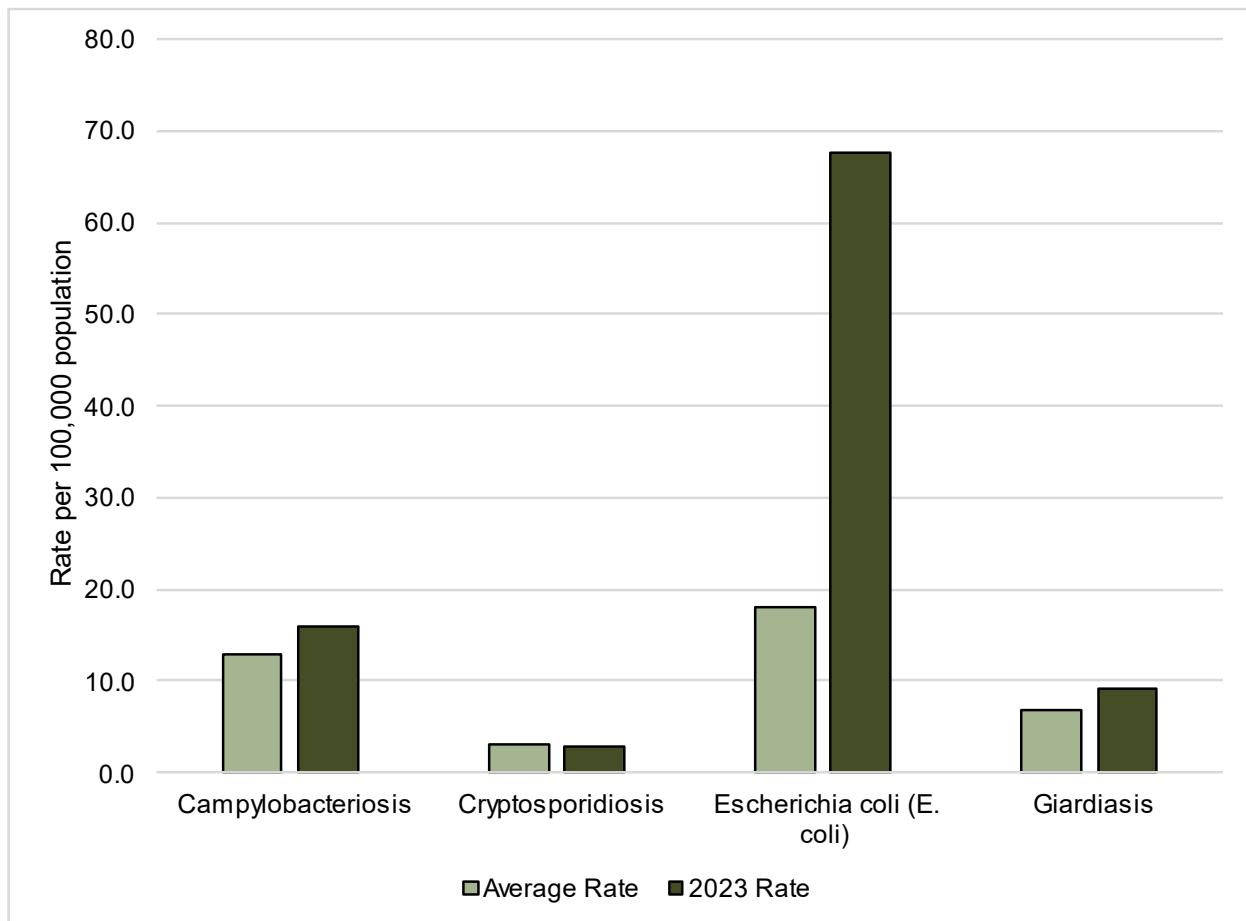


For information on influenza and COVID-19 activity, please visit the [provincial respiratory dashboard](#).

## 2.2 Enteric, Food and Waterborne Diseases

In 2023, incidence rates of campylobacteriosis, *Escherichia coli* (*E. coli*), and giardiasis were higher compared to the average rate. *E. coli* includes *Enteropathogenic Escherichia coli* (EPEC), and *Enterotoxigenic Escherichia coli* (ETEC). These strains are separate from the more severe *Verotoxigenic Escherichia coli* (VTEC).

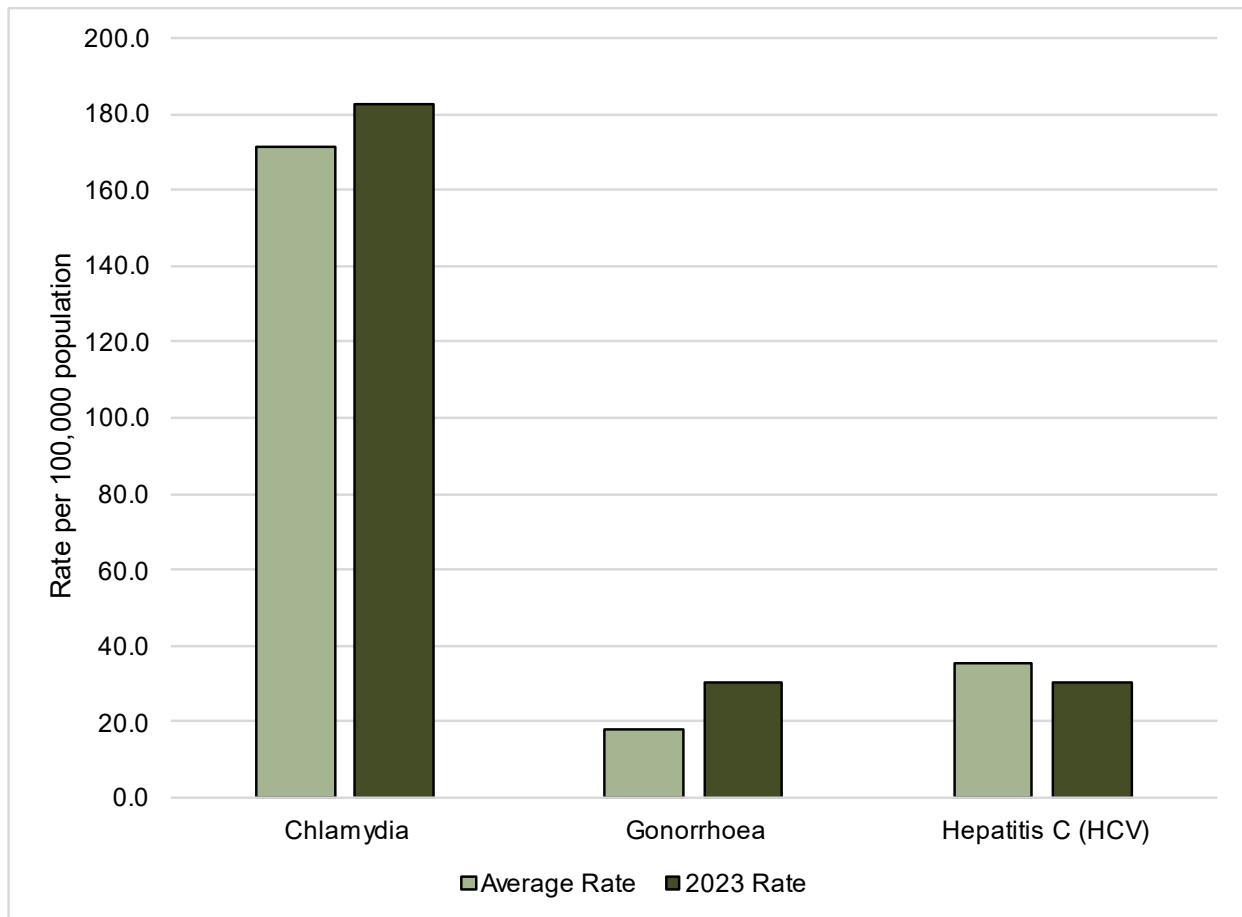
Figure 2. Average Rate<sup>1</sup> Compared with 2023 Rate, Enteric, Food and Waterborne Diseases



## 2.3 Sexually Transmitted and Bloodborne Infections

In 2023, the provincial incidence rate of chlamydia was higher compared to the five-year average rate and the previous year. Similarly, the provincial incidence rate of gonorrhea was higher compared to the five-year average rate. The provincial incidence rate of hepatitis C virus (HCV) was lower compared to the five-year average rate.

Figure 3. Average Rate Compared with 2023 Rate, Sexually Transmitted and Bloodborne Infections



## 2.4 Vector-borne and Other Zoonotic Diseases

In NL, rates of vector-borne and other zoonotic diseases are low as cases are sporadic and related to travel. In 2023, rates of disease in this disease class ranged from 0.2 to 2.4 cases per 100,000 population.

## 2.5 Vaccine Preventable Diseases

In NL, rates of vaccine preventable disease (VPD) are low. Chickenpox and hepatitis B virus (HBV) are usually the two most reported VPDs. In 2023, rates of disease in this disease class ranged from 0 to 5.6 cases per 100,000 population.

## Section 3: Reportable Events

### 3.1 Reportable Disease Events in Humans

Under the [PHPPA](#), all [notifiable diseases](#) must be reported to Newfoundland and Labrador Communicable Disease Control. For Canadian rates of nationally notifiable diseases, please see [Notifiable Diseases Online \(NDO\)](#).

Table 1: Number and Rate of Reportable Diseases Identified in Newfoundland and Labrador, 2023

Disease Name	Newfoundland and Labrador Total	
	# of Cases	# of Cases per 100,000 Population
Acute Flaccid Paralysis	0	0
Amoebiasis	0	0
Anthrax	0	0
Antimicrobial Resistant Organisms <sup>2</sup>	-	-
Arbovirus	0	0
Botulism	0	0
Brucellosis	0	0
Campylobacteriosis	<b>86</b>	<b>15.9</b>
Chancroid	0	0
Chlamydia	<b>984</b>	<b>182.7</b>
<i>Clostridium difficile</i> <sup>2</sup>	-	-
COVID-19 (laboratory-confirmed only)	<b>3438</b>	<b>638.3</b>
Creutzfeldt-Jakob Disease (CJD)	0	0
Cryptosporidiosis	<b>15</b>	<b>2.8</b>
Cyclosporiasis	<b>7</b>	<b>1.3</b>
Diphtheria	0	0
<i>Escherichia coli</i> <sup>3</sup>	<b>364</b>	<b>67.6</b>
Giardiasis	<b>49</b>	<b>9.1</b>
Gonorrhea	<b>163</b>	<b>30.3</b>
Group A Streptococcal Disease, Invasive (iGAS)	<b>53</b>	<b>9.8</b>
Group B Streptococcal Disease of the Newborn	0	0
Haemophilus Influenza Non-B Disease, Invasive	<b>11</b>	<b>2.0</b>
Haemophilus Influenza type B Disease, Invasive (HIB)	0	0
Hantavirus Pulmonary Syndrome	0	0
Hepatitis A	<b>3</b>	<b>0.6</b>
Hepatitis B	<b>20</b>	<b>3.7</b>

Disease Name	Newfoundland and Labrador Total	
	# of Cases	# of Cases per 100,000 Population
Hepatitis C	<b>163</b>	<b>30.3</b>
Human Immunodeficiency Virus (HIV)	<b>19</b>	<b>3.5</b>
Influenza (laboratory-confirmed only)	<b>574</b>	<b>106.6</b>
Legionellosis	<b>0</b>	<b>0</b>
Leprosy	<b>0</b>	<b>0</b>
Listeria	<b>1</b>	<b>0.2</b>
Louse or Tick-borne Diseases	<b>2</b>	<b>0.4</b>
Malaria	<b>7</b>	<b>1.3</b>
Measles	<b>0</b>	<b>0</b>
Meningococcal Disease, Invasive	<b>2</b>	<b>0.4</b>
Multisystem Inflammatory Syndrome in Children	<b>0</b>	<b>0</b>
Mumps	<b>0</b>	<b>0</b>
Nontuberculosis Mycobacterial Disease	<b>2</b>	<b>0.4</b>
Pertussis	<b>0</b>	<b>0</b>
Plague	<b>0</b>	<b>0</b>
Pneumococcal Disease, Invasive	<b>50</b>	<b>9.3</b>
Poliomyelitis	<b>0</b>	<b>0</b>
Q fever	<b>0</b>	<b>0</b>
Rabies	<b>0</b>	<b>0</b>
Rubella	<b>0</b>	<b>0</b>
Salmonellosis	<b>81</b>	<b>15.0</b>
Severe Acute Respiratory Illness (SARI)	<b>0</b>	<b>0</b>
Shigellosis	<b>8</b>	<b>1.5</b>
Smallpox	<b>0</b>	<b>0</b>
Syphilis	<b>54</b>	<b>10.0</b>
Tetanus	<b>0</b>	<b>0</b>
Tuberculosis	<b>4</b>	<b>0.7</b>
Tularemia	<b>0</b>	<b>0</b>
Typhoid Fever	<b>0</b>	<b>0</b>
Unspecified Hepatitis	<b>0</b>	<b>0</b>
Varicella (Chickenpox)	<b>30</b>	<b>5.6</b>
Verotoxigenic <i>Escherichia coli</i> (VTEC)	<b>20</b>	<b>3.7</b>
Viral Hemorrhagic Fevers	<b>0</b>	<b>0</b>
Yersiniosis	<b>1</b>	<b>0.2</b>

### 3.2 Reportable Disease Events in Animals

Pursuant to subsection 8(1) of the **PHPPA** regulations, the Chief Veterinary Officer reported the below zoonotic diseases to Public Health.

Table 2. Reportable Disease Events in Animals Identified in Newfoundland and Labrador, 2023

Zoonotic Disease	# of Affected Animals
Arbovirus	0
Bovine Spongiform Encephalopathy (BSE)	0
Brucellosis	0
Chlamydiosis or Psittacosis in birds	0
Cystic Echinococcosis	0
Influenza A in swine	0
Influenza H5 and H7 (Avian Influenza)	<b>33</b>
Louse or Tick-borne diseases	0
Plague	0
Q Fever	0
Rabies	0
Trichinosis or Trichinellosis	0
Tuberculosis due to <i>Mycobacterium bovis</i>	0

## Section 4: Outbreaks

### 4.1 Facility Outbreaks

In Newfoundland and Labrador, both single cases of disease and outbreaks are investigated. Health professionals within NLHS, under the direction of the MOH, conduct outbreak investigations. The causative agent(s) for respiratory outbreaks in 2023 include COVID-19, influenza, RSV, seasonal coronavirus, human metapneumovirus (hMPV), parainfluenza virus, and enterovirus/rhinovirus. The causative agent(s) for enteric outbreaks in 2023 were norovirus and sapovirus. The outbreaks reported in Table 3 occurred in either long-term care (LTC), personal care homes (PCH), assisted living facilities, or acute care.

Table 3. Confirmed Outbreaks (LTC, PCH, assisted living, acute care), Newfoundland and Labrador, 2023

Type of Outbreak	# of Confirmed Outbreaks
Respiratory	371
Enteric	34

### 4.2 Zoonotic Disease Outbreaks

Pursuant to subsection 8(1) of the **PHPPA** regulations, the Chief Veterinary Officer reported the below zoonotic disease outbreaks to Public Health.

Table 4. Zoonotic Disease Outbreaks in 2023, by Disease Type

Zoonotic Disease	# Outbreaks
Arbovirus	0
Bovine Spongiform Encephalopathy (BSE)	0
Brucellosis	0
Chlamydiosis or Psittacosis in birds	0
Cystic Echinococcosis	0
Influenza A in swine	0
Influenza H5 and H7 (Avian Influenza)	1
Louse or Tick-borne diseases	0
Plague	0
Q Fever	0
Rabies	0
Trichinosis or Trichinellosis	0
Tuberculosis due to <i>Mycobacterium bovis</i>	0
Tularemia	0

## Section 5: Public Health Emergencies

No public health emergencies were declared in 2023.

# Technical Notes

Data are subject to fluctuation and revision.

Data is verified as of June 17, 2024. Revised on November 25, 2024 to reflect current data.

Averages and thresholds for EAEC, EPEC, and ETEC are calculated from 2019 to 2023, as they only became notifiable in NL in 2019.

## Data Sources

**Reportable Human Disease Events:** Communicable Disease Control System, Department of Health and Community Services, Government of Newfoundland and Labrador.

**Respiratory and Enteric Outbreaks:** CNPHI Outbreak Summaries, COVID-19 Surveillance System (Department of Health and Community Services, Government of Newfoundland and Labrador).

**Reportable Zoonotic Disease Events and Outbreaks:** Office of the Chief Veterinary Officer, Department of Fisheries, Forestry and Agriculture, Government of Newfoundland and Labrador

**Population statistics:** Statistics Canada Annual Population Estimates.

## Endnotes

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<sup>1</sup> The average rate is calculated from 2018 to 2022, except for the E. coli's in which the average rate is calculated from 2019-2022.

<sup>2</sup> Data pending for 2023.

<sup>3</sup> Includes *Enteropathogenic Escherichia coli* (EAEC), *Enteropathogenic Escherichia coli* (EPEC), *Enterotoxigenic Escherichia coli* (ETEC)