

COMMUNICABLE DISEASE REPORT

Quarterly Report

Volume 32, Number 1

March 2015

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Hepatitis C in Newfoundland and Labrador

Hepatitis C is a liver infection caused by a blood borne virus called the hepatitis C virus (HCV). It is estimated that between 2-3% of the world's population are infected with HCV (WHO, 2010). Nationally, about 0.8% of the population is estimated to have HCV (Remis, 2007).

Over the past two years there has been an increase in laboratory-confirmed cases of HCV in Newfoundland and Labrador. There were 128 laboratory-confirmed cases of HCV reported in 2014 (Figure 1). A sharp increase was observed from 2012 (68 cases) to 2013 (106 cases). Case counts range from as low as 22 in 1994 to as high as 128 in 2014. Each year, more males were diagnosed with HCV than females in Newfoundland and Labrador. In 2014, approximately 61% of confirmed cases were male. The mean age of cases at the time of diagnosis was 34.4 years in 2014.

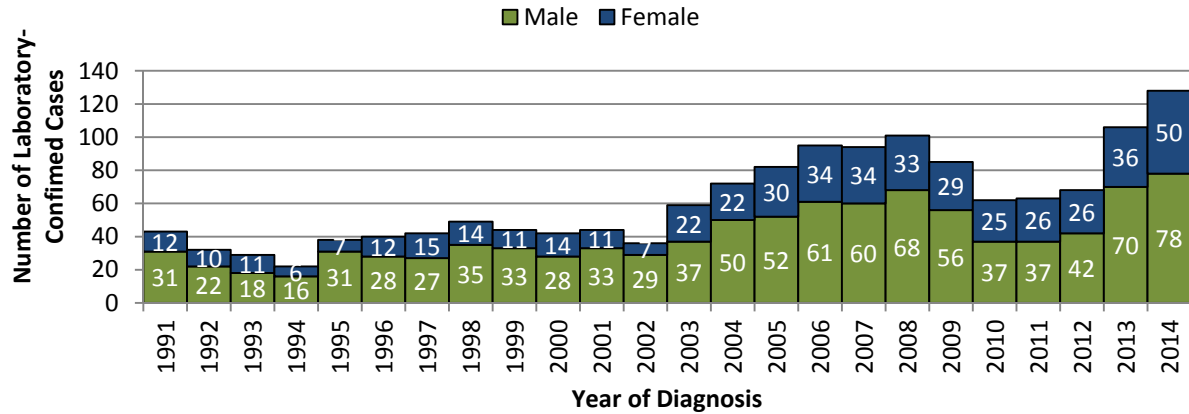


Figure 1: Number of Laboratory Confirmed Cases of Hepatitis C in NL, by Sex, 1991-2014
 Source: Communicable Disease Surveillance System, Department of Health and Community Services

Figure 2 presents the rate per 100,000 population of laboratory-confirmed cases of HCV. The rate ranges from 3.8 per 100,000 in 1994 to 24.3 per 100,000 in 2014. Similar to case counts, a sharp increase was also observed in the rate of cases from 2012 to 2014 (12.9 per 100,000 to 24.3 per 100,000).

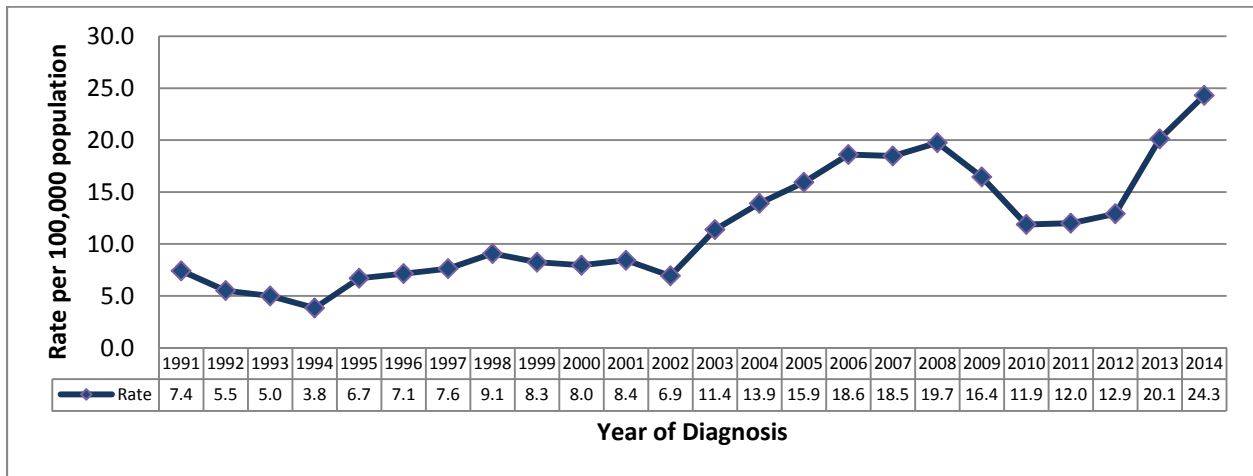


Figure 2: Rate of Laboratory Confirmed Cases of Hepatitis C in NL, 1991-2014
 Source: Communicable Disease Surveillance System, Department of Health and Community Services

References

Remis R. Modelling the incidence and prevalence of hepatitis C infection and its sequelae in Canada, 2007 final report. Public Health Agency of Canada. 2007.

World Health Organization (WHO). Viral Hepatitis-Resolutions from the 63rd World Health Assembly. 2010.

Enteric Outbreaks 2014

Enteric outbreaks are reported using the enteric, foodborne and waterborne disease module of the Canadian Network for Public Health Intelligence (CNPHI) Outbreak Summaries application. From January 1, 2014 to December 31, 2014 there were 45 enteric outbreaks in Newfoundland and Labrador. Seventeen of these outbreaks occurred in Eastern Health, 15 in Central Health, 9 in Western Health and 4 in Labrador-Grenfell Health (Figure 3). These numbers are similar to previous years.

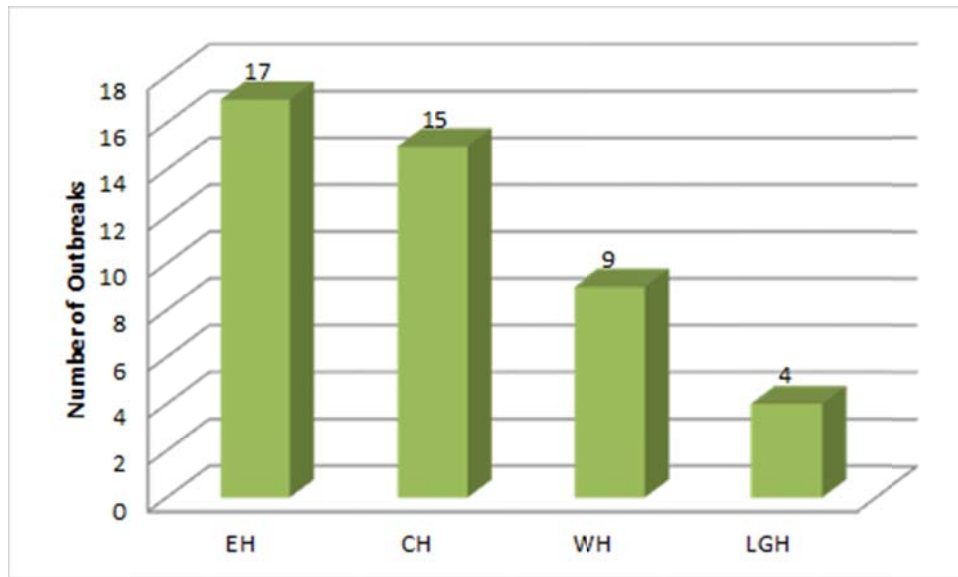


Figure 3: Number of Enteric Outbreaks by Regional Health Authority, 2014

Source: Canadian Network for Public Health Intelligence (CNPHI)

Of the 45 outbreaks, 37 (82.2%) were transmitted through person-to-person contact (Figure 4). Two outbreaks were identified as foodborne and six were of unknown transmission type.

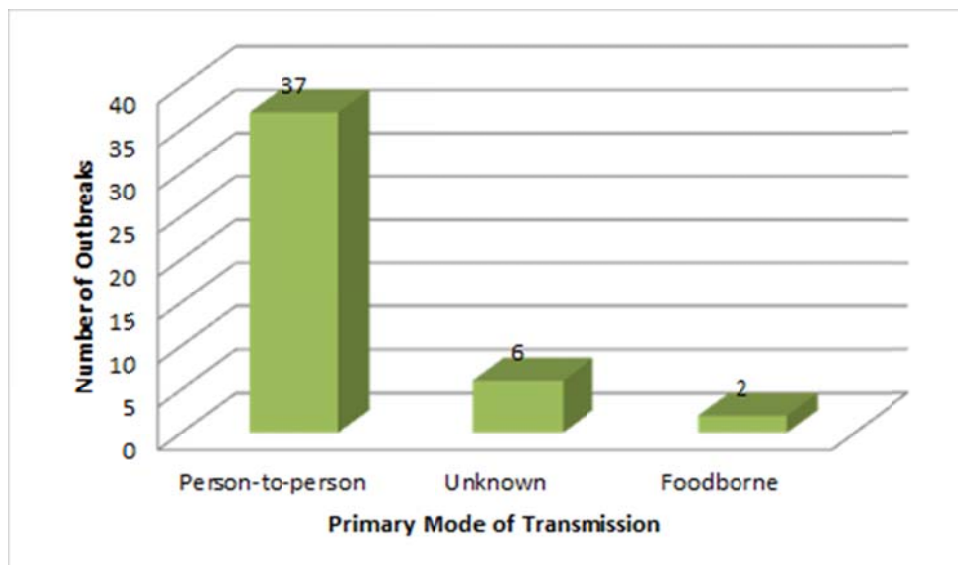


Figure 4: Primary Mode of Transmission, Enteric Outbreaks, NL, 2014

Source: Canadian Network for Public Health Intelligence (CNPHI)

The majority (64%) of outbreaks occurred at long-term care settings (including personal care homes) (Figure 5). Outbreaks at schools and hospitals accounted for 13% and 11% of outbreaks, respectively. Enteric outbreaks were also reported at daycares/day homes (5%), catered events (5%) and other community settings (2%).

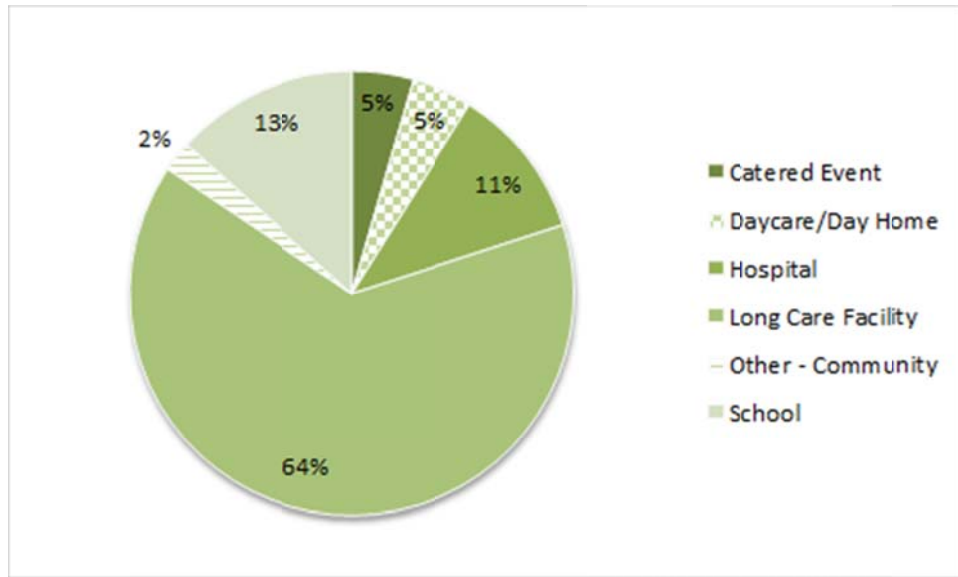


Figure 5: Setting of Enteric Outbreaks, NL, 2014

Source: Canadian Network for Public Health Intelligence (CNPHI)

Vaccine Coverage

Newfoundland and Labrador has benefited from the high coverage rates for the childhood and school-based programs (Table 1). Figures 7, 8 and 9 outline the programs and coverage as compared to the national goal.

Table 1: Vaccines used in the 2014 Newfoundland and Labrador Childhood Programs

Age	Vaccine
2 months	DTaP-IPV-Hib, Pneu C-13
4 months	DTaP-IPV-Hib, Pneu C-13
6 months	DTaP-IPV-Hib
6 months and older	Inf (Fall & Winter only)
12 months	Pneu C-13, MMR-Var and Men-C-C
18 months	DTaP-IPV-Hib and MMR-Var
4-6 years	DTaP-IPV or Tdap-IPV

Grade 4	Men-C-ACYW-135
Grade 6	HB HPV (females only)
Grade 9	Tdap

KEY for abbreviations:

DTaP-IPV-Hib: protects against diphtheria, tetanus, pertussis, polio and Haemophilus influenza b

DTaP-IPV: protects against diphtheria, tetanus, pertussis and polio

Tdap-IPV: protects against tetanus, diphtheria, pertussis and polio

Pneu-C-13: protects against 13 types of pneumococcal disease

Inf: protects against influenza

Men-C-C: protects against type C meningococcal disease

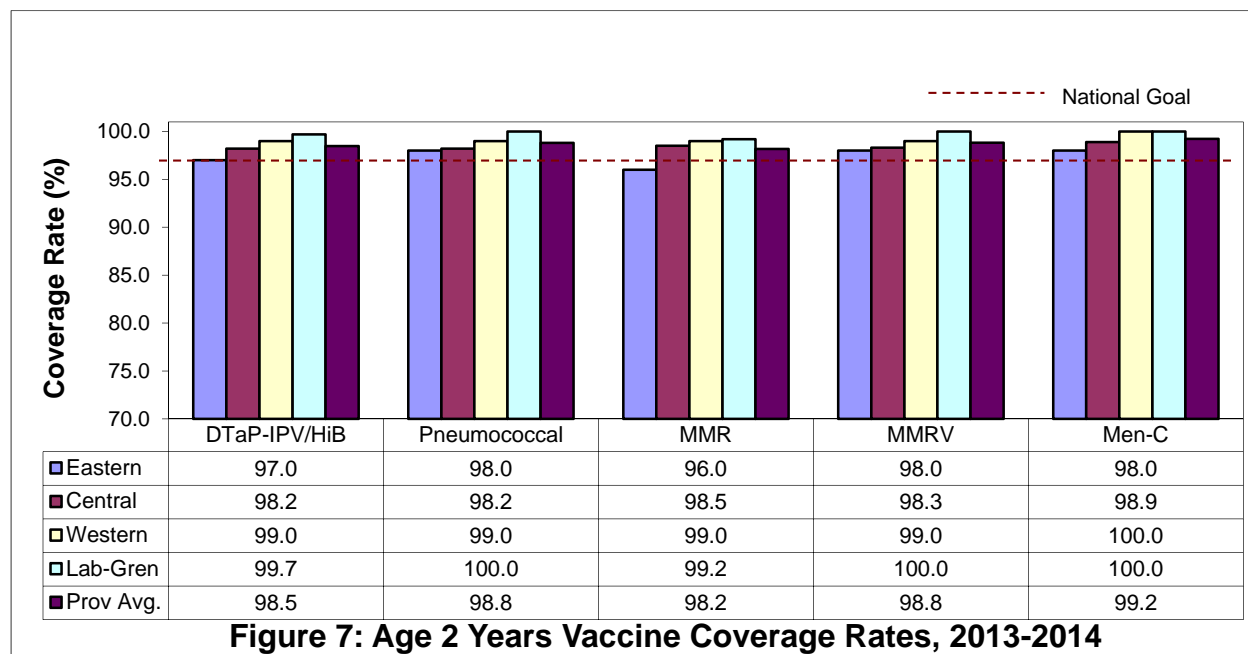
Men-C-ACYW₁₃₅ protects against type A, C, Y and W₁₃₅ meningococcal disease

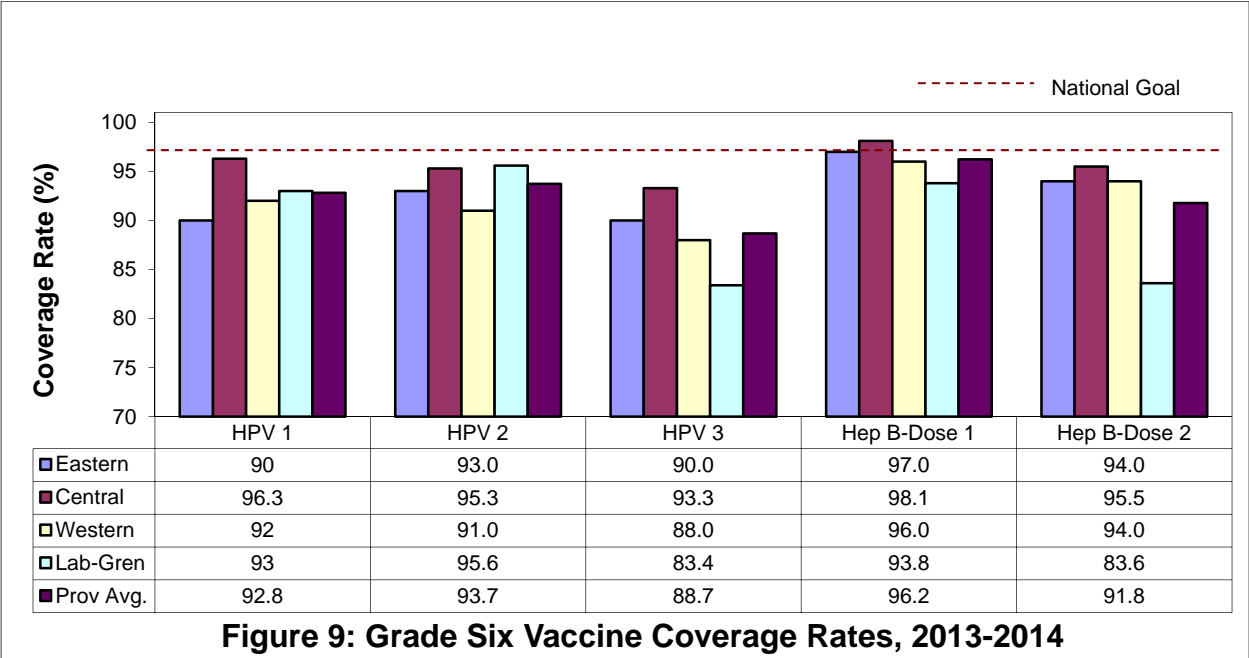
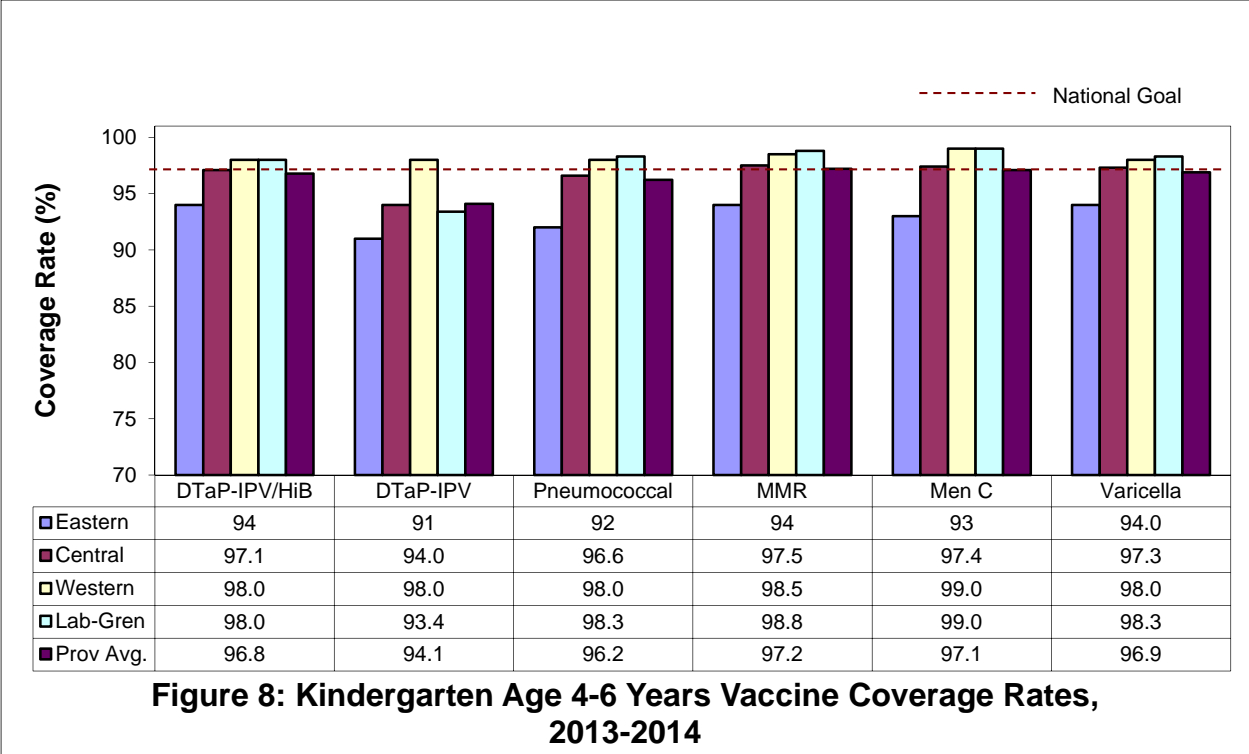
MMRV: protects against measles, mumps, rubella, & varicella (chickenpox)

HB: protects against hepatitis B (2 doses given over a 6 month period)

HPV: protects against human papillomavirus (cervical cancer) (3 doses given over a 6 month period)

Tdap: protects against tetanus, diphtheria and pertussis





The immunization coverage rates for the grade 4 meningococcal A, C, Y W-135 and the grade 9 Tdap were 96.8% and 93.1%, respectively.

Immunization Programs and Vaccine-Preventable Disease (VPD)

The VPDs continue to be reported at very low numbers.

- The 13 cases of hepatitis B are between 24 to 58 years of age. The majority of which are in the non-immunized population.
- Of the 10 pertussis cases the age range was 1 month to 44 years of age.
- Chickenpox circulated throughout 2014, most cases were 10 years of age and under. A second dose has been offered to all children born in 2013 and after.
- There were 2 cases of invasive Hib.

Ebola Virus Disease (EVD) Preparedness in Newfoundland and Labrador

There have been 27, 442 case reports of EVD and 11,220 deaths reported from the outbreak in West Africa between January 01 to June 28, 2015. Three countries have the majority of the cases: Guinea, Liberia and Sierra Leone. On September 30, 2015 the first case reported in North America created a sense of urgency in the preparation for a possible case in Canada. In Newfoundland and Labrador, the Department of Health and Community Services rose to this challenge and in October a Provincial Ebola Coordinating Committee (ECC) was engaged, led by the Deputy Minister of Health. Eight task groups were formed to focus on different areas of preparedness, including:

- Emergency Health Planning
- Waste Management
- Human Resources
- Paramedicine/transportation
- Infection Prevention and Control (IPAC)
- Public Health Measures
- Communications
- Ethics

In each Regional Health Authority (RHA) similarly structured committees were established and followed principles of emergency incident management. In a very short time an all-encompassing plan had been established for the management of a suspect or confirmed case of EVD. Two designated care centers were recognized, the Intensive Care Units at the General Hospital and the Janeway Hospital. Guidelines were developed for the protection of healthcare workers (HCWs) caring for the patient with EVD and the appropriate management of infectious waste. A plan was established for the transportation of the patient whether by road or air. Approximately four thousand HCWs were trained on enhanced IPAC measures required for the care of patients with EVD. Over the fall 2014 table top exercises and full-scale exercises (to simulate a real event as closely as possible) were used to test the preparedness of the RHAs. In February 2015 the efforts of the Provincial ECC and the Regional ECC were recognized by the Public Health Agency of Canada's Ebola Rapid Response Team as having one of the most comprehensive provincial plans for caring for a patient with EVD.

For more information on EVD see the Government of Newfoundland and Labrador website:

http://www.health.gov.nl.ca/health/comm_diseases.html

**Newfoundland and Labrador Communicable Disease Surveillance
Monthly Disease Report: December 2014**



DISEASE CLASS	DISEASE NAME	TOTAL			EASTERN			CENTRAL			WESTERN			LABRADOR GRENFELL		
		Dec	YTD 14	YTD 13	Dec	YTD 14	YTD 13	Dec	YTD 14	YTD 13	Dec	YTD 14	YTD 13	Dec	YTD 14	YTD 13
Enteric, Food and Waterborne	Amoebiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Campylobacteriosis	3	40	47	3	30	27	0	6	11	0	4	9	0	0	0
	Cryptosporidiosis	0	4	3	0	0	0	0	0	0	0	3	3	0	1	0
	Cyclosporiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cytomegalovirus	2	29	25	2	17	19	0	6	2	0	4	1	0	2	3
	Giardiasis	1	20	31	0	1	2	1	5	3	0	9	24	0	5	2
	Hepatitis A	0	5	0	0	2	0	0	2	0	0	1	0	0	0	0
	Listeriosis	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0
	Norovirus Infection	10	41	88	2	4	38	0	16	25	8	21	21	0	0	3
	Salmonellosis	0	83	55	0	31	29	0	26	10	0	21	8	0	5	8
	Shigellosis	0	2	3	0	1	3	0	0	0	0	0	0	0	1	0
	Typhoid/Paratyphoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Verotoxigenic Escherichia coli	0	9	4	0	9	4	0	0	0	0	0	0	0	0	0	
Yersiniosis	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	
Diseases Transmitted by Direct Contact and Respiratory Route	Creutzfeldt-Jakob Disease (CJD)	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
	Group B Streptococcal Disease of Newborn	0	2	1	0	0	0	0	0	0	0	1	0	0	1	1
	Influenza Virus of a Novel Strain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza A, Laboratory Confirmed	215	562	627	62	243	258	76	119	135	58	114	197	19	86	37
	Influenza B, Laboratory Confirmed	2	252	33	1	71	10	0	85	10	1	90	11	0	6	2
	Invasive Group A Streptococcal Disease	1	10	9	0	6	3	0	0	1	1	4	3	0	0	2
	Invasive Haemophilus influenza non-type B	0	2	2	0	0	1	0	1	0	0	1	1	0	0	0
	Invasive Meningococcal Disease (IMD), Conf	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	Invasive Meningococcal Disease (IMD), Prob	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Pneumococcal Disease (IPD)	4	10	11	2	4	4	2	4	0	0	2	6	0	0	1
	Legionellosis	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
	Meningitis, Bacterial (other than Hib, IMD or IPD)	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
	Meningitis, Viral	0	2	3	0	2	2	0	0	0	0	0	0	0	0	1
	Nontuberculosis Mycobacterial Disease	0	7	2	0	3	1	0	2	0	0	2	1	0	0	0
	Severe Respiratory Illness, unknown origin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis, non-respiratory	0	2	3	0	1	1	0	0	0	0	0	1	0	1	1	
Tuberculosis, respiratory	0	5	9	0	0	2	0	0	0	0	1	1	0	4	6	
Sexually Transmitted and Bloodborne Pathogens	Chlamydia	63	869	801	45	549	500	4	66	61	8	91	106	6	163	134
	Gonorrhoea	6	62	41	5	54	38	0	4	0	1	3	1	0	1	2
	Hepatitis C	6	125	104	4	92	75	1	12	7	1	20	20	0	1	2
	HIV Infection	1	8	6	1	8	6	0	0	0	0	0	0	0	0	0
	Syphilis, infectious	1	24	9	1	23	5	0	0	1	0	1	3	0	0	0
	Syphilis, non-infectious	0	5	3	0	4	2	0	0	0	0	1	0	0	0	1
Vectorborne & Other Zoonotic Diseases	Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Malaria	0	3	1	0	2	0	0	1	0	0	0	1	0	0	0
	Q Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Toxoplasmosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trichinellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	West Nile Virus Infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vaccine Preventable	Chickenpox	2	104	159	2	60	83	0	29	60	0	8	10	0	7	6
	Congenital Rubella Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hepatitis B	1	13	25	1	8	11	0	2	5	0	0	1	0	3	8
	Invasive Haemophilus influenza type B (Hib)	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mumps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pertussis	1	10	20	1	10	14	0	0	0	0	0	0	0	0	6
	Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Source: Communicable Disease Control System, Department of Health and Community Services, Government of Newfoundland and Labrador
 Disclaimer: Data are subject to continuous updates; small variations in numbers may occur.
 Note: Prior to January 2011, "Invasive Meningococcal Disease, Probable" was included under the heading "Invasive Meningococcal Disease"
 The majority of chickenpox cases meet the probable case definition
 There was one case of Dengue Fever in August 2013 related to travel.

Date verified: 23-Jul-2015