

COMMUNICABLE DISEASE REPORT

Quarterly Report

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June 2015

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Addition of Rotavirus Vaccine to the Childhood Schedule

Starting September 1, 2015 rotavirus vaccine Rotarix will be added to the Newfoundland and Labrador Immunization Schedule for Children. This product will be provided to children born July 1, 2015 and after. This is an oral vaccine that is given at 2 and 4 months.



What is rotavirus infection?

Rotavirus is a common infection that causes vomiting and diarrhea. It is very contagious and most commonly affects children between the ages of 6 months and 2 years. Symptoms include fever, vomiting, watery diarrhea and stomach pain, which may last from three to eight days. The loss of fluids from vomiting and diarrhea can lead to dehydration in young children. Rotavirus infection is one of the most common causes of visits to the doctor and hospitalization in this age group.

How is rotavirus spread?

Rotavirus spreads easily when the virus enters the body through contact with the mouth. When children have rotavirus, their stool contains a lot of germs, which may end up on their hands, the hands of their caregiver or other items. The virus is spread by contact with an infected person or indirectly through contact with contaminated articles (ex: toys, furniture).

How can rotavirus infection be prevented?

- Vaccinate your child with the rotavirus vaccine at the proper times

- Wash your hands and your child's hands often, especially after diaper changes, bathroom visits and before preparing food

Why is a vaccine recommended for rotavirus?

The vaccine helps to prevent the illness in young children and will be offered to children at 2 and 4 months of age as part of the current Newfoundland and Labrador Immunization Schedule. The vaccine is a liquid and will be administered by mouth.

Are there side effects associated with the rotavirus vaccine?

Following immunization with the rotavirus vaccine, some children (more than 10%) may experience common side effects such as irritability, fever and loss of appetite for a day or two. Very few children (less than 10%) may experience other less common side effects including fatigue, diarrhea, vomiting, cough and runny nose.

Who should NOT get the rotavirus vaccine?

- Children who have had an allergic reaction (such as trouble breathing or hives or a rash) to a previous dose of rotavirus vaccine
- Children who have had an allergic reaction to any ingredient in the vaccine or component of the container
- Children who have a history of intussusception (when one segment of intestine folds inside the other causing the intestinal wall to swell and bleed)
- Children with uncorrected congenital malformations of the gastrointestinal tract that could lead to intussusception
- Children with Severe Combined Immunodeficiency (SCID) disorder

Can breastfeeding continue during the vaccination period?

Yes. Breastfeeding can continue during the vaccination period. There is no evidence to suggest that breastfeeding would reduce the protection offered by this vaccine.

Can children consume food or liquid before or after vaccination?

Yes. There are no restrictions to a child's consumption of food or liquids, including breast milk, before or after vaccination.

Immunization Schedule Newfoundland and Labrador

September 1, 2015

Table 1: Routine immunization schedule for children beginning the series in early infancy

Age	Vaccine
2 months	DTaP-IPV-Hib, Pneu C-13 and Rot-1*
4 months	DTaP-IPV-Hib, Pneu C-13 and Rot-1*
6 months	DTaP-IPV-Hib **
6 months and older ***	Inf (Fall & Winter only)
12 months	Pneu C-13, MMRV and Men-C-C
18 months	DTaP-IPV-Hib and MMRV
4-6 years	DTaP-IPV or Tdap-IPV

Table 2: Immunizations given as part of the school health program:

Grade 4	Men-C-ACYW-135
Grade 6	HB 2 doses HPV (females only) 2 doses
Grade 9	Tdap

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 from human papillomavirus (cervical cancer) (2 doses given over a 6 month period)

Tdap: protects from tetanus, diphtheria and pertussis

Rot-1: Oral Vaccine protects from rotavirus

***Do not give as injection.** This is an oral vaccine.

** Children at high risk for disease should receive Pneu-C-13 as an **additional dose** at 6 months

***All children 6 months & older are eligible for the influenza vaccine

For delayed schedules see Newfoundland & Labrador Immunization Manual:

<http://www.health.gov.nl.ca/health/publichealth/cdc/immunizations.html>

Syphilis

Syphilis is a sexually transmitted infection (STI) caused by the spirochete (bacterium) *Treponema pallidum* (*T. pallidum*). There are three stages of syphilis infection. Primary syphilis is characterized by a chancre or lesion on the genitals, anus or in the mouth. Secondary syphilis is characterized by a rash, often on the palms of the hands, soles of the feet, and trunk/back area. Symptoms of tertiary syphilis vary depending on which organ systems are affected (e.g. cardiovascular syphilis, neurosyphilis).



Photo Credit:
Dr. Richard Garceau

US Centers for Disease Control (CDC)

Primary syphilis chancre



US Centers for Disease Control (CDC)

Secondary syphilis rash

Syphilis Outbreak in Eastern Health Region

Newfoundland and Labrador has seen an increase in syphilis cases in 2014 compared to previous years. Outbreaks have recently been reported across the country in BC, AB, ON, NS, NB and PEI. Nationally, syphilis was rare in the 1990's but began its comeback in the early 2000's and slightly later in NL. Eastern Health first reported an above normal number of cases for the year in October 2014 (Figure 1).

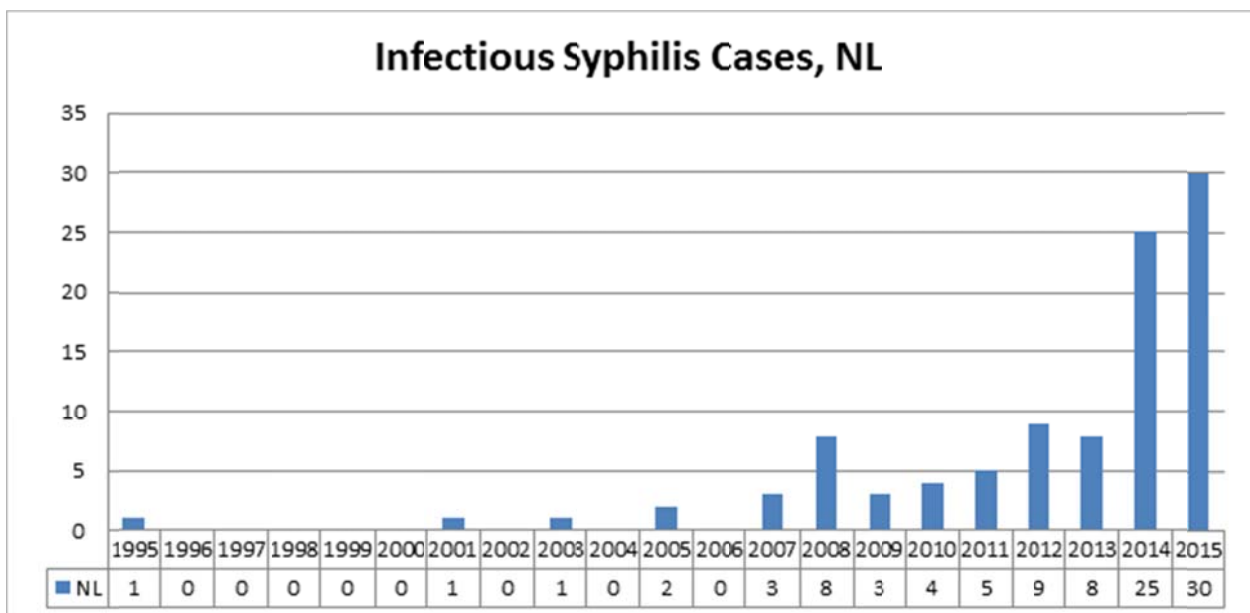


Figure 1: Infectious syphilis cases in Newfoundland and Labrador, 1995-2015.

Note: 2015 includes cases reported up to July 9, 2015.

The majority of cases have occurred in the St. John's and surrounding area among men who have sex with men (MSM). However, due to the complexities of behavior related to this STI and the reality that some MSM also have sex with women, cases can be expected in both men and women in any area of the province. There is also potential for cases to appear in children born to women who have syphilis infection during pregnancy.

Outbreak Management

The Department of Health and Community Services (HCS), in collaboration with Eastern Health's Corporate Communications, Health Promotion Division and Communicable Disease Control Program, are responding to the outbreak with a social marketing plan with the goal of improving the sexual health of MSM living in Newfoundland and Labrador.

A clinicians **Syphilis Clinical Management** guideline was developed for circulation among family physicians and nurse practitioners and can be found at:

http://www.health.gov.nl.ca/health/publichealth/cdc/Syphilis_Clinical_Mgnt.pdf

Information on testing and prevention has been posted on social media, common MSM dating apps, and on Regional Health Authority websites.

Advertising has also been directed to printed newsletters, posters and promotional items such as a condom compact.

Communicable Disease Control Services

Reporting

- Syphilis (infectious and non-infectious) is a reportable disease in Newfoundland and Labrador.
- Cases are reported to the Medical Officer of Health or designate in the appropriate RHA.
- For details on notifiable diseases see:

http://www.health.gov.nl.ca/health/publichealth/cdc/notifiable_disease_list.pdf

Testing, treatment and counseling

- For more information on where to get tested or any information on Sexually Transmitted Infections, call the Healthline at 811.
- Testing, treatment and counseling services are offered through family physicians.
- In St. John's, Eastern Health's Sexual Health Clinic can do testing, treatment and counseling and can be reached at 752-4882.

Contact tracing

Health care providers have a duty to treat contacts of people who are infected with syphilis or any other treatable STI in order to prevent the spread of infections.

References and Other Resources

Canadian Guidelines on Sexually Transmitted Infections, 2010 Edition. Ottawa, ON: Public Health Agency of Canada. Retrieved July 9, 2015, from <http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-10-eng.php>

New Brunswick Clinician's Guide to Syphilis Diagnosis and Treatment 2013. Retrieved July 9, 2015, from <http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/Publications/9246e-final.pdf>

Syphilis Clinical Management. Newfoundland and Labrador Department of Health and Community Services. Retrieved on July 10, 2015, from http://www.health.gov.nl.ca/health/publichealth/cdc/Syphilis_Clinical_Mgmt.pdf

Syphilis Serology. Newfoundland and Labrador Public Health Laboratory Guide to Services. Retrieved July 9, 2015, from <http://publichealthlab.ca/service/syphilis-serology/>

Tuberculosis

Tuberculosis (TB) is caused by the bacterium, *Mycobacterium tuberculosis*, which most often infects the lungs. The infection is spread through the air by droplet nuclei when a person with TB disease coughs, sneezes or spits.

TB is an unusual disease in that you can have infection without disease (symptoms of TB). When a person comes in contact with a TB case sometimes infection occurs; this usually happens in those who have had continuous close contact with an infectious case. After infection, approximately 5% of those infected will develop TB disease and the other 95% usually have asymptomatic infection called latent TB infection (LTBI). Persons with LTBI are not infectious and have no signs or symptoms of TB.

Active TB disease occurs when the immune system is unable to fight the infection and clinical signs and symptoms of disease occur. TB most commonly affects the lungs and is called respiratory or pulmonary TB. Signs and symptoms of active pulmonary TB include a new cough lasting three or more weeks, coughing up blood, decreased appetite, weight loss, night sweats, and fever. TB can be treated with antibiotics, usually starting with a four-drug regimen of antibiotics. A comparison of TB disease and LTBI is provided in Table 1.

Table 1: Comparison of TB and LTBI

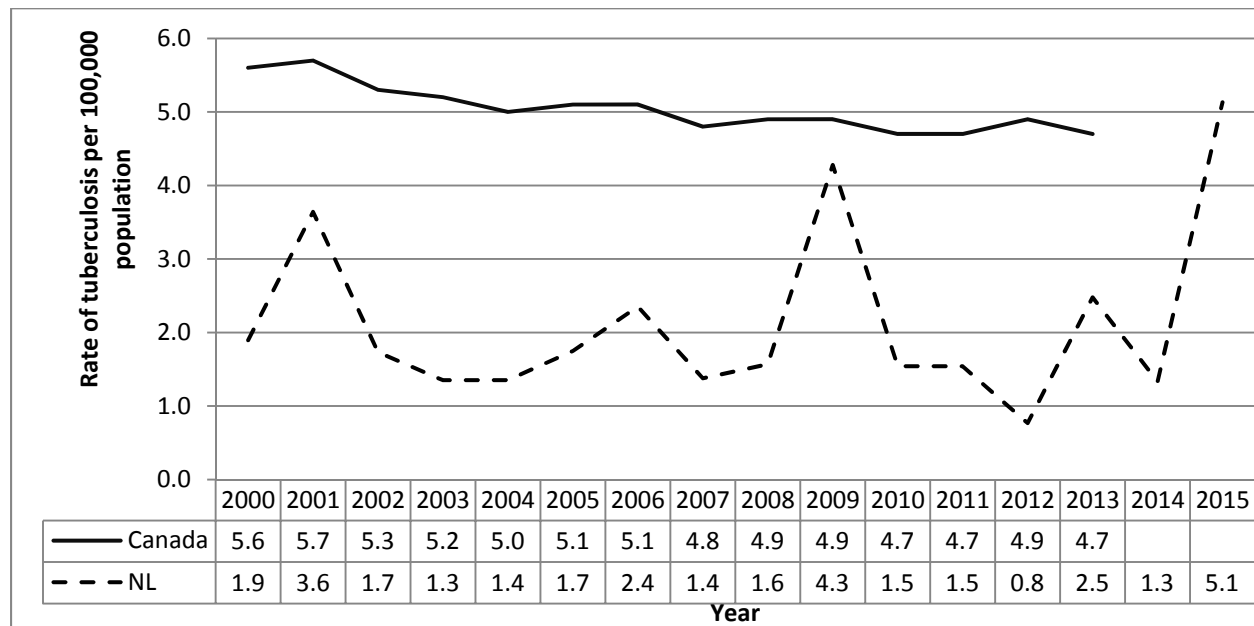
Person with Latent TB infection	Person with TB disease
<ul style="list-style-type: none">Does not feel sick	<ul style="list-style-type: none">May feel sick and have symptoms such as cough for more than 3 weeks, fever and/or weight loss
<ul style="list-style-type: none">Cannot spread TB Bacteria to others	<ul style="list-style-type: none">May spread TB bacteria to others
<ul style="list-style-type: none">Chest x-ray is usually normal	<ul style="list-style-type: none">Chest x-ray may be abnormal
<ul style="list-style-type: none">Sputum smears are negative	<ul style="list-style-type: none">Sputum smears may be positive
<ul style="list-style-type: none">May require treatment for LTBI to prevent TB disease	<ul style="list-style-type: none">Needs treatment for TB disease
<ul style="list-style-type: none">Does not require isolation from others	<ul style="list-style-type: none">May require isolation during the infectious phase

TB is one of the most deadly infectious diseases in the world. Each year it kills 1.4 million people with nearly another nine million suffering from the disease, mainly in developing countries.¹ In Canada, the annual number of TB cases has remained stable between 2003 and 2013; the incidence rate in 2013 was

¹ World Health Organization.

4.7 per 100,000 population.² British Columbia, Ontario and Quebec, making up 75% of the Canadian population, continue to report the highest number of TB cases each year. Foreign-born individuals account for the majority of reported TB cases in Canada and the incidence rate is highest among Canadian-born Aboriginal people.³ Based on origin the highest incidence rate of TB in Canada was reported in the Inuit population at 154.2 per 100,000 population.⁴

In Newfoundland and Labrador, the incidence of TB has fluctuated between 0.8 – 4.3 per 100,000 from 2000-2014 (Figure 1).



Note: 2015 includes cases reported up to September 4, 2015.

Figure 1: Reported tuberculosis incidence rate per 100,000, Canada and NL, 2000-2015

The average number of cases of TB in NL is eleven per year. However there have been a few years when there has been an increased number of cases associated with outbreaks in the northern area of the province.

The Department of Health and Community Services (DHCS) provides a comprehensive TB program for the province. This includes active surveillance for any new TB cases, reporting of all cases, analysis of trends to determine the burden of TB disease and public reporting of all new cases on the DHCS website. A provincial TB guideline has been developed to provide a consistent approach to the follow-up of TB cases and contacts. The treatment of disease is provided by Family Physicians in collaboration with Infectious Disease Specialists. The public health follow-up for contacts of TB cases is under the direction of the Medical Officer of Health and in collaboration with Communicable Disease Control Nurses and Community Health Nurses.

² Public Health Agency of Canada. (2013). Tuberculosis in Canada – 2013 – Pre-Release.

³ Ibid.

⁴ Ibid.

**Newfoundland and Labrador Communicable Disease Surveillance
Monthly Disease Report: June 2015**



DISEASE CLASS	DISEASE NAME	TOTAL			EASTERN			CENTRAL			WESTERN			LABRADOR GRENFELL		
		June	YTD 15	YTD 14	June	YTD 15	YTD 14	June	YTD 15	YTD 14	June	YTD 15	YTD 14	June	YTD 15	YTD 14
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	5	20	14	3	13	11	0	3	2	2	3	1	0	1	0
	Cryptosporidiosis	0	1	4	0	1	0	0	0	0	0	0	3	0	0	1
	Cyclosporiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cytomegalovirus	1	22	16	1	21	3	0	1	4	0	0	3	0	0	1
	Giardiasis	0	14	9	0	0	0	0	3	2	0	11	3	0	0	4
	Hepatitis A	0	2	5	0	0	2	0	2	2	0	0	1	0	0	0
	Listeriosis	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
	Norovirus Infection	2	54	27	1	14	2	0	26	14	1	14	11	0	0	0
	Salmonellosis	2	38	46	0	13	17	0	11	14	2	10	15	0	4	0
	Shigellosis	0	0	2	0	0	1	0	0	0	0	0	0	0	0	1
	Typhoid/Paratyphoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Verotoxigenic Escherichia coli	1	4	4	1	3	4	0	1	0	0	0	0	0	0	0	
Yersiniosis	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	
Diseases Transmitted by Direct Contact and Respiratory Route	Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Group B Streptococcal Disease of Newborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	0	400	340	0	238	178	0	66	43	0	86	54	0	10	65
	Influenza B, Laboratory Confirmed	4	73	248	2	44	69	2	11	84	0	13	89	0	5	6
	Invasive Group A Streptococcal Disease	0	7	1	0	5	0	0	0	0	0	2	1	0	0	0
	Invasive Haemophilus Influenza non-type B	0	0	2	0	0	0	0	0	1	0	0	1	0	0	0
	Invasive Meningococcal Disease (IMD), Conf	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	Invasive Meningococcal Disease (IMD), Prob	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Pneumococcal Disease (IPD)	2	3	3	0	1	0	0	0	1	1	2	1	1	1	0
	Legionellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis, Bacterial (other than Hib, IMD or IPD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis, Viral	0	2	2	0	1	2	0	1	0	0	0	0	0	0	0
	Nontuberculosis Mycobacterial Disease	1	6	4	1	5	2	0	1	0	0	0	2	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	0	0	0	0	0	0	0	0	0	0	0	2	0	
Tuberculosis, respiratory	0	20	1	0	2	0	0	0	0	0	0	1	0	18	0	
Sexually Transmitted and Bloodborne Pathogens	Chlamydia	65	502	420	44	342	253	7	41	33	12	58	48	2	61	86
	Gonorrhoea	0	25	33	0	22	31	0	1	0	0	0	2	0	2	0
	Hepatitis C	10	74	69	7	51	51	1	9	6	1	11	12	1	3	0
	HIV Infection	1	7	3	1	7	3	0	0	0	0	0	0	0	0	0
	Syphilis, infectious	3	27	11	2	25	10	0	1	0	1	1	1	0	0	0
	Syphilis, non-infectious	0	4	2	0	2	1	0	0	0	0	2	1	0	0	0
Vectorborne & Other Zoonotic Diseases	Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Malaria	0	5	0	0	5	0	0	0	0	0	0	0	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	18	125	84	6	90	55	0	12	22	12	18	3	0	5	4
	Congenital Rubella Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hepatitis B	4	12	7	2	9	4	0	0	1	1	2	0	1	1	2
	Invasive Haemophilus Influenza type B (Hib)	0	0	1	0	0	1	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	0	0	6	0	0	5	0	0	0	0	0	0	0	0	0
	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

Date verified: 17-Jul-2015

Disclaimer: Data are subject to continuous updates; small variations in number 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.