

# Communicable Diseases: Reference Manual for Schools



Public Health

Revised

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## INTRODUCTION

Students may be exposed to a variety of infectious diseases and illnesses during their school years. While not all infectious diseases are of a severe nature or life threatening, many infections cause illness which leads to:

- increased student absenteeism,
- parental work absenteeism in order to provide care for their child,
- additional visits to medical facilities.

These consequences amount to lost learning opportunities for children and additional societal burdens. By participating in the control of infectious diseases, schools ensure these consequences are reduced and children are healthy and ready to learn.

This manual will assist you in assessing the need for further action (parental or public health notifications, additional control measures, etc.) in order to control the spread of diseases in your school.

Should you have any questions with regard to the content of this manual, or any other questions related to the control of infectious diseases in schools, please do not hesitate to contact your local Public Health Office (see Appendix C).

## COMMUNICABLE DISEASES

### REPORTING OF COMMUNICABLE DISEASES TO YOUR LOCAL PUBLIC HEALTH OFFICE

School principals, under the *Public Health Act*, have a responsibility to report certain communicable diseases to Public Health.

The NEW BRUNSWICK REGULATION 2009-136 (Reporting and Diseases Regulation) under the *Public Health Act* (O. C. 2009-455) <http://www.gnb.ca/0062/Acts/BBR-2009-136.pdf> states:

#### **“REPORT BY PRINCIPAL OF SCHOOL OR OPERATOR OF A DAY CARE CENTER**

Where the principal of a school or operator of a day care center believes, on reasonable and probable grounds, that a pupil in the school or child in the daycare center has or may be affected by **measles, meningitis, mumps, pertussis, rubella, an Escherichia coli infection** or any disease listed in Part 1 of Schedule A of the *Public Health Act*, he or she shall, **within 24 hours** after coming to such belief, verbally report to a medical officer of health or a person designated by the Minister the following information:

- a) the name, address and telephone numbers of person making the report;
- b) the name and address of the pupil or child believed to be infected;
- c) the Medicare number of the pupil or child;
- d) the date of birth and gender of the pupil or child;
- e) the name or description of the disease;
- f) the name of the parent or legal guardian of the pupil or child;

- g) the residential telephone number and any other telephone number where the parent or legal guardian may be reached;
- h) the name of the primary care medical practitioner of the pupil or child, if known; and
- i) any relevant clinical information.”

The Reporting and Disease Regulation contains a listing of the diseases included in part 1 of Schedule A of the New Brunswick Regulation 2009-136 under the *Public Health Act*. However diseases most likely to be encountered in the school setting, in addition to those listed above, include:

- Clusters of illness thought to be food or water-borne,
- Clusters of severe or atypical illness thought to be respiratory-borne.

### **REPORTING DISEASES TO YOUR LOCAL PUBLIC HEALTH OFFICE**

You or your designate should report suspected outbreaks or reportable conditions (as stated above) to your local Public Health Office according to the deadlines stated in Appendix A of the *Public Health Act*.

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*Please note that the Public Health Act supersedes the Protection of Personal Information Act. However, all information received is confidential.*

## **COMMUNICABLE DISEASE CONTROL RESPONSIBILITIES**

### **RESPONSIBILITY FOR SCHOOL EXCLUSION**

It is the responsibility of the principal to ensure that any specific health advice or recommendation provided by a healthcare provider, such as a physician or a Public Health employee, is respected (for example, the exclusion of a student from school).

In general, the principal may, at his or her discretion, exclude a child if a risk to other children is perceived. This is a decision between the principal, the parent(s) or guardian(s) and the child’s family physician. Public Health staff can and should also be consulted.

### **AUTHORITY OF THE MEDICAL OFFICER OF HEALTH**

Notwithstanding the exclusion guidelines below, under the Public Health Act, the Medical Officer of Health has broad authority to take any and all measures necessary (e. g. excluding students from school) in the interest of communicable disease control.

## GENERAL GUIDELINES ON EXCLUSION

Certain symptoms in children may suggest the presence of a communicable disease. For the mildly ill child, exclusion should be based on whether there are adequate facilities and staff available to meet the needs of both the ill child and other children in school. If the child is ill enough that he/she cannot participate adequately in planned activities, exclusion should strongly be considered.

Children who have the following symptoms must be excluded until the child is asymptomatic, or a health practitioner allows their return to school. The following information is meant as a guide to assist staff in taking the appropriate actions.

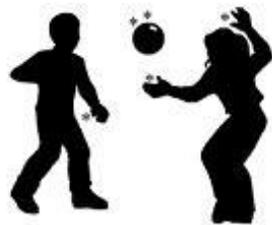
Unusual behavior	Illness that prevents child from participating in normal activities. Child looks or acts differently; unusually tired, difficult to awaken, pale, confused.
Respiratory symptoms	Difficult or rapid breathing or severe cough, child makes a high pitched croupy or whooping sound after coughing or child is unable to sit or rest comfortably due to continuous cough.
Vomiting	Two or more episodes of vomiting in last 24 hours. See section on Gastroenteritis.
Diarrhea	An increased number of abnormally loose stools in the previous 48 hours. Observe child for other symptoms such as fever, loss of appetite, vomiting, abdominal cramps, mucus or blood in stools. Child must be separated from other children until parents can pick him/her up. See section on Gastroenteritis.
Fever	Consider exclusion if child is unwell and has difficulty participating in activities. See relevant sections depending on any other accompanying symptoms (i.e. diarrhea, etc.).
Itching	Persistent itching or scratching of body or scalp.
Rashes / skin lesions	Children with sores / skin lesions with drainage that are of an unknown cause or cannot be covered by clothing or Band-Aids should be assessed by a physician or nurse practitioner as to their ability to remain in school pending the resolution of lesions. Children who have a rash of unknown cause and who seem unwell (fever, very tired, pale, etc.) should be assessed by a physician or nurse practitioner before being allowed back to school.
Unusual color	Red eyes with or without discharge. Yellow eyes or skin (jaundice).

## HOW MICROORGANISMS ARE TRANSMITTED

In order to assist you in understanding some of the terminology used in the next section, the following figures illustrate the ways in which microorganisms may be transmitted from one person to another. Please note that certain modes of transmission are applicable to certain microorganisms and not others.



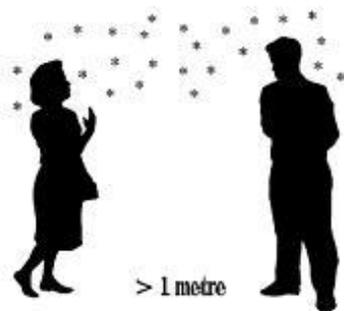
Direct



Indirect



< 1 metre  
Droplet



> 1 metre  
Airborne



Vehicle



Zoonotic or  
vectorborne

Reference: Health Canada; Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care; Canada Communicable Disease Reports; Vol. 25S4; July 1999

## COMMON CHILDHOOD INFECTIONS AND EXCLUSION PERIODS

**PLEASE NOTE:**

- These guidelines are for information purposes only.
- Information on specific diseases is available for consultation and printing at the following website: <http://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/diseases.html>.
- Definition of incubation period: Period of time between the exposure to an infectious disease and the start of symptoms.
- Exclusion criteria are available in Appendix A or the following website: <http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/HealthProfessionals/SchoolExclusionGuidelines.pdf>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>COMMON COLDS</b></p> <p>Incubation period: between 12 hours and 5 days, usually 48 hours</p>	<p>Runny, congested nose, sneezing, chills, sore throat, headache, tiredness which may last 2-7 days.</p>	<p>Contact with nose or throat secretions (droplets or saliva) of an infected person or contaminated hands. Contact with toys, tissues or other objects contaminated with droplets from cough.</p>	<p>From onset of symptoms up to 7 days or until symptoms resolve.</p>	<p>Hand washing after contact with nasal secretions is important in reducing the spread.</p> <p>Covering the mouth when coughing and sneezing.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>CONJUNCTIVITIS (PINK-EYE)</b></p> <p>Numerous causes (infection, allergies etc.). <b>Infections are from bacteria or viruses:</b></p> <p>Incubation period for <b>bacteria:</b> 1-3 days</p> <p>Incubation period for <b>viruses:</b> 5-12 days</p>	<p>Red, watery, itching, burning eyes: swollen eyelids, sensitivity to light.</p> <p>A discharge may cause eyelids to crust over and stick together during the night. Bacterial infections usually produce yellow, thick, crusty discharge.</p>	<p>Contact with discharge from the eye, or nose/throat secretions of an infected person.</p>	<p>During the course of the infection. Usually very infectious.</p> <p><b>Bacterial:</b> Until 24 hours of appropriate antibiotic treatment received.</p> <p><b>Viral:</b> As long as there is eye discharge.</p>	<p>Hand washing by staff and students extremely important in reducing the spread.</p> <p>No sharing of towels, washcloths or makeup.</p> <p><b>Bacterial:</b> Antibiotic treatment is prescribed.</p> <p><b>Viral:</b> Treatment as prescribed by physician.</p>	<p><b>Bacterial:</b> Exclude until 24 hours after starting antibiotic treatment.</p> <p><b>Viral:</b> No exclusion required.</p>	<p><b>NO</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>FIFTH DISEASE</b> (Slapped Cheek; Parvovirus B19)</p> <p>Incubation period: 4-21 days</p>	<p>Rash begins on the cheek - slapped cheek appearance followed, in 1-4 days, by lace-like rash on the trunk and extremities which fades, but may reoccur for 1-3 weeks on exposure to sun or heat.</p>	<p>Contact with respiratory secretions / saliva of an infected person.</p>	<p>Greatest before onset of rash and probably not communicable after onset of rash.</p>	<p>Good hand washing by staff and students.</p> <p>Immuno-suppressed or <b>pregnant women</b> should be referred to family doctor (see Pregnancy section under Special Situations).</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>GASTROENTERITIS</b></p> <p><b>BACTERIAL</b> (<i>E. Coli</i>, salmonella, campylobacter) <b>or</b></p> <p><b>VIRUSES</b> (norovirus, etc.)</p>	<p>Rapid onset of diarrhea, vomiting, nausea, abdominal cramps and sometimes fevers.</p>	<p>Ingestion of contaminated food or water; also usually spread from person to person from contamination of hands by stools or vomit.</p>	<p>While symptoms persist. Carriers without symptoms may sometimes transmit disease.</p>	<p>Hand washing by staff and students is extremely important in reducing the spread.</p> <p>Disinfect high touch surfaces (doorknobs, handrails, toys) often.</p>	<p>Until 48 hours after diarrhea or symptoms have resolved</p> <p>Negative stool cultures can sometimes be required to return to school;</p> <p>These requirements would be specified by Public Health.</p>	<p><b>Report when a cause is known and is reportable. See section on gastroenteritis when an outbreak is suspected.</b></p>
<p><b>HAND, FOOT AND MOUTH DISEASE</b></p> <p>Incubation period: 3-5 days</p>	<p>Rash on palms of hand, soles of feet and inside mouth – may look like tiny red dots, blisters or ulcers. Rash may also occur on the buttocks. Fever, headache, sore throat, tiredness.</p>	<p>Contact with nose or throat secretions (droplets or saliva) or feces of an infected person.</p>	<p>During presence of symptoms and perhaps longer as virus persists in stools for several weeks.</p>	<p>Hand washing after contact with nose / saliva or feces of infected person.</p>	<p><b>Exclusion usually not required, unless significant drooling that cannot be controlled.</b></p>	<p><b>NO</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>HEPATITIS A</b></p> <p>Incubation period: 15-50 days (Average of 30 days)</p>	<p>Most children do not have any symptoms. If symptoms are present, they usually consist of sudden onset of loss of appetite, nausea, tiredness, fever, stomach ache. Sometimes there are also changes in stools or urine color (tea colored urine, light colored stools) yellowing of skin or eyes (jaundice).</p>	<p>Found in the stools of an infected person. Spread directly from person to person or in food or water that has been contaminated.</p>	<p>2 weeks before the onset of jaundice and until 1 week after.</p>	<p>Hand washing by staff and students extremely important in reducing the spread.</p> <p>Disinfect high touch surfaces (doorknobs, handrails, toys) often.</p> <p>A vaccine is available for those at high risk of infection.</p>	<p><b>Exclude until one week from the onset of illness/jaundice.</b></p>	<p><b>YES</b></p>
<p><b>HEPATITIS B</b></p> <p>Incubation period: 1 to 6 months (average of 2-3 months)</p>	<p>Many are without symptoms (most often children). Others may have flu-like symptoms such as fever, fatigue, loss of appetite, abdominal pain, nausea, vomiting. Jaundice (yellowing of the eyes or skin) may also occur.</p>	<p>Blood and body fluids, or from mother to child during pregnancy and delivery. Indirectly from surfaces or objects (razors, needles,...) contaminated with blood.</p>	<p>Several weeks before onset of first symptoms and remains infectious through the infection. Some are cured of their infection, while others become chronic carriers and can remain infectious for life.</p>	<p>Covering cuts and other wounds</p> <p>Proper cleaning of blood and body fluid spills (see related section under Infection Control).</p> <p>Adequate immunization against hepatitis B.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>HEPATITIS C</b></p> <p>Incubation period: 2 weeks to 6 months (average of 6-9 weeks)</p>	<p>Many are without symptoms (most often in children). Others may have flu-like symptoms such as fever, fatigue, loss of appetite, abdominal pain, nausea, vomiting. Jaundice (yellowing of the eyes or skin) may occur.</p>	<p>Mostly through blood, less frequent through sexual and mother-to-child. ) Indirectly from surfaces or objects (needles, razors,...) contaminated with blood.</p>	<p>Several weeks before onset of first symptoms, infection persists for life in most individuals.</p>	<p>Covering cuts and other wounds. Proper cleaning of blood and body fluid spills (see related section under Infection Control). There is no vaccine that protects against hepatitis C.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>HERPES</b> (cold sores)</p> <p>Incubation period: 2-12 days</p>	<p>Fever, malaise, lesions filled with liquid on lips, face most often; however can also occur on other areas of the body.</p>	<p>Direct contact with saliva or fluid from lesions.</p>	<p>Infection remains for life, with lesions appearing on occasion.</p> <p>Is most contagious when lesions are present.</p>	<p>Prevent contact with saliva or liquid from lesions; cover lesions if possible.</p> <p>Good hand washing, especially after touching saliva or lesions of a infected person.</p> <p>Disinfection of objects that may have come in contact with liquid from lesions.</p>	<p><b>Exclusion not required, unless significant drooling that cannot be controlled.</b></p>	<p><b>NO</b></p>
<p><b>HIV</b></p> <p>Incubation period: variable. Usually many years to decades from infection to AIDS, some never develop AIDS due to modern treatment options</p>	<p>Some have flu-like symptoms shortly after infection; most do not show any symptoms until they develop AIDS. Those with AIDS have symptoms related to the suppression of their immune system such as frequent and unusual infections or specific types of cancers.</p>	<p>Sexual and contact with blood or body fluid. Not through saliva, unless it is contaminated with blood.</p> <p>From mother to child during pregnancy, delivery and breastfeeding.</p> <p>Indirectly through needles, razors etc.</p>	<p>Early after onset of infection and stays infectious throughout life.</p>	<p>Avoid contact with blood or other bodily fluids.</p> <p>Hand washing after contact with blood and body fluids.</p> <p>Cover cuts.</p> <p>Proper cleaning of blood and body fluid spills (see related section under Infection Control).</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>INFLUENZA</b></p> <p>Incubation period: 1-4 days</p>	<p>Muscle aches, nasal congestion, sore throat, severe fatigue, cough, headache, sneezing, runny nose, fever.</p>	<p>Person to person through nose/mouth droplets, indirect spread by contaminated hands, objects and surfaces.</p>	<p>1 day before to 5 days after onset.</p> <p>Children may be infectious for longer periods of time.</p>	<p>Hand washing by staff and students.</p> <p>Sneezing in a tissue or in a sleeve.</p> <p>Disinfection of contaminated objects and surfaces.</p> <p>Annual flu vaccination.</p>	<p><b>Exclusion usually not required, unless child is not well enough to partake in routine activities.</b></p>	<p><b>NO, unless an outbreak is suspected.</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>LICE</b> <b>HEAD OR BODY</b></p> <p>Incubation period for eggs: 1-2 weeks</p>	<p>Itching/scratching of head or body. <u>Lice</u>: Dark brown adult or lighter brown young, crawling lice (hard to see as they move quickly). <u>Lice eggs/nits</u>: grey-white, oval in shape and are size of a grain of sand. Attached to the hair close to the scalp. Cannot be flicked off.</p>	<p>Contact with the person's head (head lice) or body (body lice), or personal articles which have come in contact with these body parts; Brushes, combs and headgear can transfer mature head lice. Lice cannot fly or jump onto another person.</p>	<p>While lice remain alive on the individual.</p>	<p><u>Prevention</u>: Avoid sharing combs, brushes, hats, hair bands, head sets or other head ornaments. Put hats and scarves in coat sleeves. <u>Treatment</u>: Recommended only where live lice have been seen. Topical lotions/creams or shampoos require two treatments. Close contacts should be checked and treated if live lice are found.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>MEASLES</b> <b>(Red Measles, Hard Measles, Rubeola)</b></p> <p>Incubation period: 7-18 days</p>	<p>Fever, watery eyes, runny nose, and cough prior to the appearance of a red blotchy rash. Rash usually begins on the face, spreads down the trunk and out the extremities and lasts 4-7 days.</p>	<p>Highly contagious; contact with nose or throat secretions (droplets or saliva) of an infected person.</p>	<p>4 days before the rash appears and up to 4 days after onset.</p>	<p>Ensure all children are immunized with mumps, measles and rubella vaccine.  For <b>pregnant women</b>, see relevant section under Special Situations.</p>	<p><b>Exclude until 4 days from the onset of rash.</b></p>	<p><b>YES</b></p>
<p><b>MENINGITIS</b></p> <p>Causes: bacteria or viruses.</p> <p>Incubation period: 2-10 days</p>	<p>Symptoms may include: fever, stiff neck, headache, vomiting, unusual sleepiness, irritability, lack of appetite; sometimes rash or seizures.</p>	<p>Contact with nose or throat secretions (droplets or saliva) of infected person.</p>	<p>Until 24 hours after starting effective antibiotic treatment.</p>	<p>Adequate vaccination can provide protection against certain bacteria.  Hand hygiene, environmental disinfection, discourages sharing of water bottles, glasses, utensils.  <u>Bacterial</u>: Antibiotic treatment is prescribed.</p>	<p><b>Exclude until 24 hours after having starting antibiotic treatment.</b></p>	<p><b>YES</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>MOLLUSCUM CONTAGIOSUM</b></p> <p>Incubation period: a few days to months</p>	<p>Round, smooth and firm papules (nodules) that have an ulcer (hole) in the middle.</p>	<p>Direct contact with nodules.</p>	<p>Likely as long as lesions persist.</p> <p>Can remain for many months to years without treatment.</p>	<p>Avoid direct contact with lesions.</p> <p>Treatment of existing lesions.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>MONONUCLEOSIS</b> (Kissing Disease)</p> <p>Incubation Period: 4-6 weeks</p>	<p>Fever, sore throat, swollen glands, fatigue.</p> <p>Note: Fatigue can persist for many months.</p>	<p>Contact with nose or throat secretions (droplets or saliva) of infected person or articles soiled with saliva. Kissing facilitates spread among young adults.</p>	<p>Undetermined – virus excretion can occur for many months after infection.</p>	<p>Refrain from sharing beverages, utensils and any contact with an infected person’s saliva.</p> <p>Hand washing by staff and students is important in reducing the spread.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>MRSA</b> (Methicillin Resistant Staphylococcus Aureus)</p>	<p><u>Infection</u>: skin infections are most common; other more severe infections possible.</p> <p><u>Colonization (carrier)</u>: carries bacteria on skin without any symptoms of infection.</p>	<p>Direct skin to skin contact, or indirectly through contaminated surfaces.</p>	<p>Skin lesion: until healed.</p> <p>Carrier: some can carry bacteria for extended periods.</p>	<p>Hand washing and regular cleaning and disinfection of surfaces.</p> <p>Adequate care and treatment of skin infections. Skin infection should be covered at all times.</p> <p>No additional measures are required for MRSA carriers.</p>	<p><b>Exclusion usually not required, unless skin lesions (boils) cannot be covered. Seek medical advice for contact sport participation.</b></p>	<p><b>NO</b></p>
<p><b>MUMPS</b></p> <p>Incubation period: 12-25 days</p>	<p>Swollen, tender glands on one or both sides of the face. Many do not have symptoms.</p>	<p>Contact with nose or throat secretions (droplets or saliva) from an infected person.</p>	<p>From 7 days before swelling appears until 5 days after.</p>	<p>Ensure all children are immunized with mumps, measles and rubella vaccine.</p> <p>For <b>pregnant women</b>, see relevant section under Special Situations.</p>	<p><b>Exclude case for 5 days from the onset of gland swelling.</b></p>	<p><b>YES</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>NOROVIRUS</b> (Norwalk)</p> <p>Incubation period: 12-72 hours</p>	<p>Nausea, vomiting and stomach cramps, are most prominent, diarrhea also.</p>	<p>Virus is passed in stools and vomit. Contact with hands or objects contaminated by stools or vomit Norovirus is highly infectious.</p>	<p>While symptoms are present and up to 2 days after diarrhea stopped.</p>	<p>Hand washing is most important, especially after toileting.</p> <p>Do not prepare food if ill.</p>	<p><b>Exclude until 48 hours after symptoms have resolved.</b></p>	<p><b>NO, unless an outbreak is suspected.</b></p>
<p><b>RINGWORM</b></p> <p>Incubation period:</p> <p><u>Body:</u> 4-10 days</p> <p><u>Scalp:</u> 10-14 days</p>	<p><u>Body:</u> Appears as flat, spreading ring-shaped lesions. Edge of the lesion may be dry and scaly. As lesions spread outward, the center often becomes clear.</p> <p><u>Scalp:</u> May be difficult to detect in early stages. Begins as small, scaly patch which spreads leaving scaly patches of temporary baldness.</p>	<p>Direct contact with lesions from infected person, animal or contaminated articles.</p>	<p>As long as lesions are present and viable fungus persists on contaminated materials.</p>	<p>Treatment is prescribed.</p> <p>Keep lesions dry and covered with protective dressing.</p> <p>Hand washing after contact with lesions or items in contact with lesion is important in reducing the spread.</p>	<p><b>Exclude until treatment has been started.</b></p>	<p><b>NO</b></p>
<p><b>ROSEOLA</b> (sixth disease, exanthum subitum)</p> <p>Incubation period: 5-15 days</p>	<p>Congestion, runny nose, red eyes, with high fever.</p> <p>When the fever breaks, appearance of raised rash on child's trunk which spreads over the body.</p>	<p>Contact with nose or throat secretions (droplets or saliva) of an infected person.</p>	<p>Probably most contagious before the rash appears. Should be considered contagious until symptoms resolve.</p>	<p>Frequent hand washing.</p> <p>Cover cough and sneezes followed by hand washing.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>
<p><b>ROTA VIRUS</b></p> <p>Incubation period: 1-3 days Rotavirus is the most common cause of severe diarrhea in children.</p>	<p>Diarrhea preceded or accompanied by nausea/vomiting, possibly fever. Symptoms typically persist for 3-8 days.</p>	<p>Contamination of hands and surfaces by hands of cases or contamination of the environment (doorknobs, toys, etc.).</p>	<p>Most contagious during the presence of symptoms, and shortly thereafter.</p>	<p>Hand washing.</p> <p>Ensure routine cleaning and disinfection of all frequently touched surfaces with soap/water followed by disinfection.</p>	<p><b>Exclude until 48 hours after symptoms have resolved.</b></p>	<p><b>NO, unless an outbreak is suspected.</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>RSV:</b> <b>RESPIRATORY SYNCYTIAL VIRUS</b> Incubation period: 2-8 days</p>	<p>Upper respiratory track illness such as cough, congestion, runny nose, fever.</p> <p>More severe lung infections in the very young, very old or with diminished immune system.</p>	<p>Through direct contact with nose or throat secretions (droplets or saliva). Touching surfaces/ items contaminated with respiratory secretions or droplets from coughs and sneezes.</p>	<p>During illness for 3-8 days.</p>	<p>Hand washing after contact with nasal secretions.</p> <p>Covering cough or sneeze followed by hand washing.</p>	<p><b>No exclusion required.</b></p>	<p><b>NO</b></p>
<p><b>RUBELLA</b> <b>(German Measles)</b>  Incubation period: 2-3 weeks</p>	<p>Mild fever and cough, runny nose, congestion, red/watery eyes, followed by a rash that spread from the face to the rest of the body.</p> <p>Swelling of lymph glands behind the ears is common.</p>	<p>Contact with saliva or the respiratory secretions of an infected person.</p>	<p>From 1 week before onset of rash to approximately 7 days after.</p>	<p>Ensure all children are immunized with mumps, measles and rubella vaccine.</p> <p>For <b>pregnant women</b>, see relevant section under Special Situations.</p>	<p><b>Exclude until 7 days from the onset of rash.</b></p>	<p><b>YES</b></p>
<p><b>SCABIES</b>  Incubation: up to 3 weeks</p>	<p>Caused by mites which burrow under the skin. Seen as wavy, threadlike, very small, slightly elevated grayish white burrows. Most frequently found between the fingers, on the elbows, hands and wrists, but can be found elsewhere on the body.</p> <p>Itching may be severe especially at night.</p>	<p>Direct contact with infected areas of the skin or articles contaminated.</p>	<p>Until mites are destroyed by treatment.</p>	<p>Any areas affected should be covered or contact with these area avoided until treatment is complete. A second treatment one week after the first course is often needed.</p> <p>Wash the infected child's bed linen and clothes used in the 4 days before the start of therapy in hot water, and dry in a clothes dryer on the hottest setting.</p> <p><i>Note:</i> household contacts should also be treated, even though they can be without symptoms.</p>	<p><b>Exclude until 24 hours after having started treatment</b></p>	<p><b>NO</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b><i>STREPTOCOCCAL DISEASE (3 TYPES)</i></b></p> <p><b>1. IMPETIGO</b></p> <p>Incubation period: 1-3 days</p>	<p>A bacterial infection of the skin marked by pus-filled sores. Often has a “honey” colored crust.</p> <p>Usually around mouth and nose, or arms and legs. Itching can be common.</p>	Contact with discharge from sores.	As long as pus-filled lesions continue to drain.	<p>Hand washing by staff and students extremely important in reducing the spread.</p> <p>Antibiotic treatment is prescribed.</p>	<b>Exclude until 24 hours after starting antibiotic treatment.</b>	<b>NO</b>
<p><b>2. SCARLET FEVER</b></p> <p>Incubation period: 1-3 days</p>	<p>May include symptoms of strep throat, plus a very fine raised rash. Appears most often on the neck, chest, in the folds of the armpit, elbow, groin and inner thigh. A reddish tongue (strawberry-like texture) may be present.</p> <p>Later there may be peeling of skin on fingertips and toes.</p>	Same as with strep throat.	If untreated can remain infectious up to 10-21 days. If treated with antibiotics, will not be infectious after 24 hours.	<p>Hand hygiene, environmental disinfection, cover cough and sneezes, discourage sharing of water bottles, glasses, utensils.</p> <p>Antibiotic treatment is prescribed.</p>	<b>Exclude until 24 hours after starting antibiotic treatment.</b>	<b>NO</b>
<p><b>3. STREP THROAT</b></p> <p>Incubation period: 1-3 days</p>	Fever, sore throat, red throat with pus, swollen glands.	Contact with respiratory tract secretions, saliva of an infected person.	If untreated can remain infectious up to 10-21 days. If treated with antibiotics, will not be infectious after 24 hours.	<p>Hand hygiene, environmental disinfection, cover cough and sneezes, discourage sharing of water bottles, glasses, utensils.</p> <p>Antibiotic treatment is prescribed.</p>	<b>Exclude until 24 hours after starting antibiotic treatment.</b>	<b>NO</b>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>VARICELLA</b> <b>(CHICKENPOX)</b></p> <p>Incubation period: 2-3 weeks</p>	<p>Fever and skin rash that comes in crops. Rash begins on chest, back, underarm, neck and face: changes to blisters then scabs.</p>	<p>Direct contact with nose or throat secretions (droplets or saliva) and from lesions of an infected person.</p> <p>Indirect via airborne viruses.</p> <p>Chickenpox is very contagious.</p>	<p>Usually 1-2 days before the appearance of the rash and until 5 days after the first crop of blisters appears or until the last blister has crusted.</p>	<p>The <b>immune-suppressed person</b> or <b>pregnant woman</b> that has never had the infection or vaccine should be referred to his/her doctor if they are exposed to chickenpox (see Pregnancy section under Special Situations).</p> <p>Disinfect or discard articles soiled by nasal or throat secretions, or discharges from lesions.</p> <p>Vaccination of children and susceptible adults.</p>	<p><b>Exclude until child is well enough to return to school.</b></p> <p>Siblings may attend school if they are well.</p>	<p><b>NO</b></p>
<p><b>ZOSTER-ZONA</b> <b>(SHINGLES)</b></p>	<p>Grouped lesions which contain liquid, local pain.</p> <p>Looks like chickenpox and is caused by the same virus, but is found on only one part of the body and occurs in people who have already had chickenpox in the past.</p>	<p>Spreads by contact with fluid from the rash.</p> <p>Persons who have had chickenpox in the past are protected and are not at risk if they come in contact with rash.</p>	<p>Until all lesions have scabbed.</p>	<p>As per chickenpox section above.</p> <p>In addition, lesions should be kept covered as much as possible and avoid contact with lesions.</p> <p>Hand hygiene.</p>	<p><b>Exclusion not required, unless skin lesions cannot be covered.</b></p>	<p><b>NO</b></p>
<p><b>WARTS</b></p> <p>Incubation: days to months</p>	<p>Localized, non painful nodule often found on feet, but may be found elsewhere.</p>	<p>Through direct contact with wart mostly, indirectly through contact with other soiled articles or surfaces (razors, floors,...).</p>	<p>As long as lesions are present.</p>	<p>Hand washing after contact with lesions.</p> <p>Encouraging proper treatment of lesions; keeping exposed warts covered.</p> <p>Encourage use of footwear in gyms, locker rooms, public showers.</p>	<p><b>No exclusion required</b></p>	<p><b>NO</b></p>

DISEASE	SIGNS/SYMPTOMS	HOW IT SPREADS	CONTAGIOUS PERIOD	PREVENTION AND CONTROL	EXCLUSION GUIDELINES	REPORT TO PUBLIC HEALTH
<p><b>WHOOPING COUGH</b> (Pertussis)</p> <p>Incubation period: 6-20 days</p>	<p>Initial signs are coughing and sneezing followed 1-2 weeks later by characteristic cough (series of coughs ending with a high pitched gasp of air called a whoop). May vomit after bouts of coughing.</p> <p>Not all children present with the typical cough.</p>	<p>Contact with nose or throat secretions (droplets or saliva) of an infected person or articles soiled with these secretions.</p> <p>Pertussis is communicable mostly in the first 2 weeks after onset of cough.</p>	<p>Very infectious in early stages. Little risk 3 weeks after onset of cough even if it persists.</p> <p>After 5 days of antibiotic treatment, a person is no longer contagious.</p>	<p>All contacts should have their immunization status verified and brought up to date.</p> <p>Antibiotics for prevention of disease among contact are guided by Public Health.</p>	<p><b>Follow Public Health's recommendation</b></p>	<p><b>YES</b></p>

## INFECTIOUS DISEASE OUTBREAKS AND SURVEILLANCE

### WHAT IS AN OUTBREAK?

An outbreak may exist when a greater than expected number of people have similar symptoms within a defined location and period of time (e. g. vomiting, diarrhea, rash, respiratory symptoms). If there are more cases of illness among the children and staff than normally expected, notify your nearest Public Health Office (see Appendix C). They will provide you with advice on control measures and further investigate the situation as required.

### HOW DO I KNOW THERE IS AN OUTBREAK?

In order to determine if an outbreak is occurring, you need to have a sense of the rate of illness to expect in your school at any point throughout the year. It is therefore important to conduct regular tracking of absenteeism rates and underlying reasons. This will allow you to quickly notice an increase in absenteeism due to a specific cause. The earlier such events are detected the sooner control measures can be put in place to limit the spread of infections.

Influenza outbreak surveillance: In addition, the province of New Brunswick, in collaboration with the national FluWatch Program, conducts yearly influenza-like illness surveillance in many institutions, including schools. Your participation in the School Influenza Surveillance each year assists us in tracking the extent of influenza-like illness in our community.

### INFECTION CONTROL GUIDANCE FOR ENTERIC (GASTROINTESTINAL) OUTBREAKS

When an outbreak of gastroenteritis with vomiting and/or diarrhea is suspected in a school, the Health Protection Branch (inspectors) should be notified (see Appendix D). The following infection control measures may be implemented, as per Public Health guidance.

- Exclude ill children and/or staff for 48 hours **after** the resolution of their symptoms unless otherwise indicated by a health professional.
- A letter addressed to parents should be considered in order to inform them of the situation and of control measures. Proper exclusion is one of the most important measures in controlling an outbreak.
- Information and education on hand hygiene should be conducted with staff and students. An emphasis on thorough hand washing for all staff and children is essential to prevent the spread of the infectious agent. An alcohol-based hand sanitizer can be used if a sink is not available and hands are not visibly soiled, or as an adjunct to proper hand washing. Supervision is an essential element in forming good hand washing habits in children.
- If advised by Health Protection Branch inspector, post notices at entrances advising parents/guardians of the enteric outbreak. Alert all staff (including cleaning/kitchen staff) to the situation at hand and ensure they are aware of additional precautions in place. Staff should be informed to self-exclude if they are ill with symptoms.
- Kitchen staff can easily contaminate food which then infects numerous children and/or staff. Kitchen staff should be questioned as to any recent gastrointestinal illness; any kitchen staff currently ill should be excluded.

- Increase cleaning and sanitization (at least once a day) of all common and high-touch surfaces (desks, handrails, doorknobs, toys, washrooms, etc.) should be done. Cleaning should be done with soap and water (if visibly dirty), followed by disinfection with an adequate product such as:
  - A 1:50 (1 part bleach for 49 parts water) bleach solution allowing for a minimum contact time of 5 minutes
  - 0.5% accelerated hydrogen peroxide solution (e. g. , Virox™) allowing for a minimum contact time of 5 minutes
  - Any other disinfecting agent that is effective against norovirus and rotavirus, respecting adequate mixing (product concentration) and contact time to ensure inactivation of microorganisms.
- Clean and sanitize areas contaminated by vomit or stools as per the following directions:
  - Follow instructions according to the cleaning product used.
  - Gloves should be worn when handling contaminated articles (e. g., linen, diapers, etc.) or when cleaning areas contaminated by vomit or stools. If the area is heavily contaminated, a mask should also be worn and other children/staff should be removed from the area while cleanup is being conducted. A gown should be considered if there is a risk of contaminating one's clothing.
  - If surfaces and/or items are soiled with vomit or stools, solid matter and excess liquid must first be removed with paper towels, proceeding gently to avoid further contaminating other areas or creating airborne particles.
  - Once gross cleanup is complete, clean the affected area with detergent and hot water using a "single use" cloth **before sanitization takes place**. Sanitization of contaminated surfaces can be done using one of the recommended products.
  - Clean common "soft" surfaces (i.e., stuffed toys, cloth furnishings, etc.) by washing in hot water (60°C / 140°F) and detergent. A washing machine can be used; hot wash/rinse settings should be used. There is no need to wash or disinfect tubs of washers or dryers if cycles are run until complete.
  - Carpets: conduct gross cleanup. Depending on the severity of the spill, carpets or area rugs can be steam cleaned or professionally cleaned if spills are small; replacement may be required for larger spills.

## INFECTION CONTROL GUIDANCE FOR RESPIRATORY OUTBREAKS

When a respiratory illness outbreak has been identified in a school, Public Health should be notified. The following infection control measures may be implemented as per Public Health recommendations.

- Exclusion of ill children and/or staff with fever and respiratory symptoms should be considered, at least while they are still symptomatic.
- A letter addressed to all parents should be considered to inform them of the situation and control measures such as exclusion, etc.
- Information and education on hand hygiene should be shared. An emphasis on thorough hand washing for all staff and children (for 15-20 seconds with soap and warm water) is essential to prevent the spread of the infectious agent. An alcohol-based hand sanitizer can be used if water and soap are not available and hands are not visibly soiled.
- Increased cleaning and disinfection (at least once a day) of all common and high-touch surfaces (desks, handrails, doorknobs, toys, etc.) should be done. Cleaning should be done with soap and water, followed by disinfection with an approved product such as a 1:100 bleach solution (1 part bleach for 99 parts water) or quaternary ammonium for example.

**\*\*Please note that these are guidelines and Public Health staff may change these recommendations depending on their assessment of the situation.**

## PUBLIC HEALTH IMMUNIZATION PROGRAM

Children may be exposed to a variety of communicable diseases during their school years. Ensuring that all children have up-to-date immunizations according to provincial guidelines is one of the most effective measures to control the spread of many diseases.

### ROLE OF PUBLIC HEALTH IN IMMUNIZATION IN SCHOOLS

- ✓ To promote and provide routine immunization of all school age children.
- ✓ To monitor and encourage the appropriate immunization of students through verification of School Immunization Records.

### ROLE OF SCHOOLS IN IMMUNIZATION

The following is an excerpt from *Public Health Act and the Reporting and Disease Regulation*:

#### **“Immunization of children**

If a child is entering a school in New Brunswick for the first time, the principal of the school shall ensure that proof of immunization of the child for the following diseases is provided to him or her:

- |                |                            |
|----------------|----------------------------|
| a) diphtheria; | g) rubella;                |
| b) tetanus;    | h) varicella;              |
| c) polio;      | i) meningococcal disease.” |
| d) pertussis;  |                            |
| e) measles;    |                            |
| f) mumps;      |                            |

Please note that proof of immunization is not required if the parent or legal guardian of the child provides:

- a. a medical exemption, on a form provided by the Minister, that is signed by a medical practitioner or nurse practitioner,
- OR
- b. a written statement, on a form provided by the Minister, signed by the parent or legal guardian of his or her objections to the immunizations required by the Minister.

Your local Public Health office will be contacting schools on a regular basis to verify the implementation of this regulation.

In addition, it is important for teachers and staff working with children to ensure their vaccination status is up to date. This is especially important for staff which may have underlying medical conditions which put them at increased risk of complications from infectious diseases. Also, the pregnant employees and their fetus are more at risk for certain infectious diseases; for more information, please consult the section “Pregnancy and Infectious Diseases”.

Refer to the following website for the New Brunswick routine immunization schedule:

<http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/Immunization/RoutineImmunizationSchedule.pdf>.

## **INFECTION CONTROL**

### **HAND HYGIENE**

Hands spread an estimated 80% of common infectious diseases like the common cold and flu. For example, when you touch a doorknob that has the flu virus on it and then touch your mouth, you can get sick. But these disease-causing germs slide off easily with good hand washing technique.

Hand washing is easy to learn, cheap and incredibly effective at stopping the spread of disease-causing germs when done correctly; it is the single most effective way to prevent the spread of communicable diseases.

It is important to encourage and help children to wash their hands. Don't assume that children know how to wash their hands properly. Remember that children learn by example, so good hand hygiene demonstrated by teachers goes a long way towards teaching them when and how to wash their hands.

### ***WHEN SHOULD I WASH MY HANDS?***

Wash your hands several times a day with soap and warm water, especially:

- before meals,
- before and after preparing food,
- after using the toilet,
- after changing diapers or helping a child use the toilet,
- after blowing your nose, coughing or sneezing,
- after playing with shared toys or equipment,
- before and after visiting with people who are sick,
- after handling animals or their waste.

### ***HOW SHOULD I WASH MY HANDS?***

1. Remove all rings and wet your hands with warm running water.
2. Put a small amount of liquid soap in the palm of one hand.
3. Rub your hands together for **15-20 seconds** so you produce lather. Make sure you scrub between your fingers, under your fingernails and the backs of your hands.
4. Rinse your hands well with clean running water for **at least 10 seconds**. Use a paper towel to turn off the water (try not to handle the faucets once your hands are clean).
5. Dry your hands with a single use paper towel or air dryer.

Please note: Bar soaps are not as hygienic as liquid soaps because they stay moist and attract germs. If a bar soap is the only option, it should be stored on a rack so that the bar doesn't sit in water.

### ***WHAT ABOUT ANTIBACTERIAL SOAPS?***

Plain ordinary soap is as effective as antimicrobial soaps for everyday hand washing use. The mechanical action of hand washing (rubbing your hands together) with soap and water breaks down the tiny bits of grease, fat and dirt on your hands that bad germs cling to. Soap doesn't actually kill the bad germs. Instead, it's the **combination of soap, rubbing, rinsing and drying** that helps these bugs slide off your hands. Therefore, good hand washing technique is the most important component to effective hand hygiene.

### ***WHAT ABOUT ALCOHOL-BASED HAND SANITIZERS?***

Alcohol-based hand sanitizers are an effective option for hand hygiene, provided they contain more than 60% alcohol. They are widely used in the health care settings or in situations where running water is not available. Alcohol-based hand rubs should only be used if no visible dirt is present on the hands.

Public Health recommends the use of alcohol-based hand sanitizers in schools only in specific situations, such as during an outbreak in the school or in areas where there is no easy access to running water and soap (for example, on field trips). Children should learn about proper hand washing, which is essential to maintaining good health. In addition, soap and water are more

widely available in the community which makes learning and applying regular hand washing very important.

### **RESPIRATORY ETIQUETTE**

Respiratory etiquette is a combination of practices which reduce the risk of transmitting respiratory infections such as colds and flu. Such practices include:

- Sneezing and coughing into sleeve rather than hand;
- Using disposable tissues for wiping nose and discarding appropriately after one use;
- Hand washing and/or antiseptics methods after coughing, sneezing or using tissues (see above);
- Keeping hands away from the mucous membranes of the eyes and nose.

### **GUIDELINES FOR HANDLING BLOOD AND BODY FLUIDS**

Blood and body fluids may transmit infectious diseases, some of which can be very serious (hepatitis B, C, etc.). The following guidelines should assist you in managing any blood and body fluid spills.

#### ***TO CLEAN BLOOD/BODY FLUID SPILLS:***

- Wear latex gloves.
- Start with gross cleanup: wipe up visible material with disposable towel and dispose in lined garbage containers.
- Clean the spill area with disinfecting solution.
- Apply a 1:10 bleach solution (see recipe: How to prepare a bleach solution) or other effective disinfectant onto all contaminated areas of the surface.
- Let the bleach solution remain on the contaminated area for 5-10 minutes.
- Wipe up the remaining bleach solution.
- All non-disposable cleaning materials used such as mops and scrub brushes should be disinfected by saturating with the bleach solution and air dried.
- Gloves should only be worn once. Remove gloves and place in plastic garbage bag with all soiled cleaning materials.
- Double-bag and securely tie-up plastic garbage bags and discard.
- Thoroughly wash hands with soap and water.

Caution must be used when using bleach, especially at a 1:10 concentration. Strong bleach odors may be irritating to many; sensitive individuals may wish to avoid being in the area during the disinfection procedure. Increasing ventilation by opening doors and windows should be considered. In addition, bleach may discolor or damage certain surfaces such as carpets; the use of other disinfectants or replacement of the surface altogether may be necessary. For further advice on alternate products to use, please contact your local Public Health office (see Appendix C).

**How to prepare a bleach solution for disinfecting blood/body fluid spills:**

1:10 solution: mix 1 part of bleach with 9 parts of water. For example, 50 mL (1/4 cup) of household bleach mixed with 450 mL (2 ¼ cups) of water.

See the following website for videos and posters regarding control measures in order to prevent the spread of infections. Please do not hesitate to use these throughout your facility. <http://www2.gnb.ca/content/gnb/en/corporate/promo/flu.html>

## SPECIAL SITUATIONS

### PREGNANCY AND INFECTIOUS DISEASES

Some infections can pose a risk to an unborn baby. In general, if a pregnant woman is in direct contact with someone with a potentially infectious illness, she should consult her physician.

**Varicella zoster/chickenpox:** up to 2% of infections that occur in the first 20 weeks of pregnancy can lead to malformations or miscarriages. If a pregnant woman develops chickenpox around the time of delivery (from 5 days before to 2 days after delivery), her newborn may be very ill. The good news is that most adults have been exposed to chickenpox during their youth and are immune to this infection (or some may have received the varicella vaccine), so for most pregnant women the risk is very low. If a pregnant woman has never had the disease or vaccine, and is exposed to a child that is contagious with chickenpox, she should consult with her physician to discuss the risks to her fetus and any follow-up tests or medication required.

**Rubella/German measles:** This infection can have serious consequences for a baby if the woman is not immune and is exposed in early pregnancy. Most pregnant women are checked for immunity at the start of their pregnancy or before. If a pregnant woman comes into contact with rubella, she should inform her physician promptly in order to discuss her risk and any follow-up required.

**Fifth disease/slapped cheek/parvovirus B19:** Usually there are no serious complications for a pregnant woman or her baby because of exposure to a person with fifth disease. This is because:

- About 50-80% or more of women are already immune to parvovirus B19, and these women and their babies are protected from infection and illness.
- Even if a woman is susceptible and gets infected with parvovirus B19, she usually experiences only a mild illness. Likewise, her unborn baby usually does not have any problems attributable to parvovirus B19 infection.

Sometimes, however, parvovirus B19 infection will cause the unborn baby to have severe anemia and the woman may have a miscarriage. This occurs in **less than 5%** of all pregnant women who

are infected with parvovirus B19 and occurs more commonly during the first half of pregnancy. There is no evidence that parvovirus B19 infection causes birth defects.

Excluding pregnant women from work because of a student with fifth disease is not effective in preventing exposure, since individuals are contagious before the start of the rash. If a pregnant staff person has been in contact with someone who has fifth disease or has an illness that might be caused by parvovirus B19, she should discuss this with her physician.

**Measles and mumps:** during pregnancy, a mumps or measles infection can result in early delivery or even loss of the baby. If exposure to a case of mumps or measles has occurred, pregnant women who have never been vaccinated should consult their care provider about specific measures or follow-up required.

Women who plan to become pregnant should ensure they are up to date with their immunizations.

### **PETS AND VISITS TO FARMS OR PETTING ZOOS**

Depending on school policies, animals may be kept as class pets, as visitors for special events or may be associated with field trips. Animals may carry diseases which can be transmitted to children. The following are general guidelines which should be considered whenever animals are part of any school related activities.

#### ***IN SCHOOL (PERMANENT OR VISITING)***

Ensure the animal's living quarters are kept clean and away from food areas. Waste should be disposed of regularly and litter boxes should not be accessible to children. Children should not play with animals unsupervised.

Permanent animals should be assessed by a veterinarian prior to their introduction into the class, and should have yearly (or more often as recommended by the veterinarian) vet visits. Any animal exhibiting signs of illness or changes in behaviour should be excluded from school until assessed by a veterinarian. Vaccines or other regular treatments, as recommended by the veterinarian, should be followed.

Animals chosen as classroom pets should be of good temper and appropriate for children. Particular care should be taken with reptiles as these species can carry salmonella.

Hand hygiene after contact with all animals is important.

#### ***VISITS TO FARMS***

##### **What you can do BEFORE children visit a petting zoo or open farm.**

- Call ahead to the petting zoo or open farm for the following information. You may want to visit the site before bringing a large group of children:
  - Is hand washing facilities available? Do they have liquid soap and paper towels?
  - Are there toilet facilities? Are they clean?

- Are the animals on display healthy?
- Is the eating area separate from the animal area?
- Teach children how to wash their hands properly.

### **Be prepared when going on-site**

- Bring wipes and alcohol-based hand sanitizing gel with you. Use a hand sanitizer with 60% to 95% ethanol or isopropanol alcohol.
- If possible, eat before you get to the petting zoo or open farm, and not while you are there.
- Bring sturdy boots or shoes for the children to wear while in the petting zoo. This will help to prevent children from slipping and falling. If possible, at the end of the visit, children should change into a clean pair of shoes and then wash their hands to remove any dirt from their hands. Bag the dirty shoes to be cleaned at home.
- Make sure there are an adequate number of adults to supervise the children.
- Ensure the farm is well managed with grounds and public areas as clean as possible and animals prohibited from eating areas.
- Hand washing facilities should be adequate (hot and cold running water, soap and paper towel/hot air dryer) and accessible to young children.
- Ensure children wash and dry hands thoroughly after contact with animals or animal feces, before eating or drinking, after going to the toilet and before departure.
- Ensure children understand not to eat or drink anything while touring the farm, not to put fingers in mouths, eat anything which may have fallen on the ground, or any animal food. Use waterproof plasters to protect any cuts or grazes not covered by clothes.

Animal bites that break the skin should be thoroughly washed with soap and water. The student/school personnel should be assessed by a physician as to the need for further wound care, including antibiotics and the risk of rabies exposure.

### **BED BUGS**

Bed bugs infestations have become more common in recent years and, as a consequence, are being discussed more often in the media. While their increase has been noted mostly in large urban centres, recent reports of bed bug infestations lead us to believe that N. B. will not be immune to this problem. This is not surprising given the ease with which people travel across the province or across the globe these days; bed bug infestations may therefore occur in your region. Bed bugs are not an indication of uncleanliness and have been found in all kinds of settings, including homes, apartments, hospitals and hotels (even very expensive and luxurious ones).

#### ***WHAT ARE BED BUGS?***

Bed bugs are small, brownish, flattened insects that feed on the blood of people while they sleep. Although the bite does not hurt at the time, it may develop into an itchy well similar to a mosquito bite.

Bed bugs do not transmit disease, but they can cause significant itchiness, anxiety, and sleeplessness. Bed bug infestations are also very difficult and expensive to control. Usually, bed

bugs will hide during the day and only come out to feed during the night. Unlike head lice, they do not live on a person. However, they can hitchhike from one place to another in backpacks, clothing, luggage, books, and other items.

### ***WHAT ABOUT THE SCHOOL ENVIRONMENT?***

Actual bed bug infestations in schools seem to be uncommon. While unlikely, it is possible that a few bed bugs could hitchhike to school from an infested home by hiding in a student's clothing or backpack. Bed bugs that hitch a ride into the school in one student's backpack could be carried home by another student, making the school a potential hub for bed bug spread. When this happens, the school should take proactive action to stop them from spreading in the school setting.

### **What can I do to prevent bed bugs from spreading in my school or class?**

The following are sensible actions that schools can take to aid in preventing or quickly identifying bed bugs in the school environment:

1. When the opportunity arises, educate teachers (and parents, if questions or issues arise) about bed bugs before they become a problem. See the N. B. bed bugs fact sheets below for more information.
2. Keep it clean and uncluttered. Keep all areas as uncluttered as possible. House clean regularly and pay attention to places where lost articles and upholster furniture are.
3. Discourage and limit unnecessary clothes or items being brought from home to school such as blankets, pillows, and dress-up clothes. Ensure to regularly wash and heat-dry all bedding, dress-up clothing, or other items for at least 20 minutes (most 'dry-clean only' items can be put in the dryer as long as they are dry).
4. Store all student and staff personal items separately so as to minimize contacts between personal items as much as possible (use lockers or individual plastic bins for example). Clean regularly, paying extra attention to lost-and-found areas, upholstered furniture.
5. Facility maintenance: As bed bugs like to hide in cracks and crevices, seal cracks, crevices, and moldings with paint or caulk; secure loose tiles; remove carpeting when possible; repair holes, peeling wallpaper, and chipping paint.

For more information on bed bugs, including prevention and control, please consult the New Brunswick series of fact sheets on bed bugs at the following link:

<http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/BedBug/BedBugBites.pdf>

## REFERENCES AND USEFUL LINKS

American Academy of Pediatrics, Red Book: 2012 Report of the Committee on Infectious Diseases, Washington (D. C.), American Academy of Pediatrics, 2012.

Canada, National Advisory Committee on Immunization. Canadian Immunization Guide, 7<sup>th</sup> Edition, Ottawa, Public Health Agency of Canada, Infectious Disease and Emergency Preparedness Branch, Centre for Infectious Disease Prevention and Control, 2006.

Canadian Pediatric Society [www.cps.ca](http://www.cps.ca).

Centers for Disease Control and Prevention (CDC) <http://www.cdc.gov/>

Gold, Ronald. Your Child's Best Shot: A parent's guide to vaccination, 3<sup>rd</sup> Edition, Ottawa, The Canadian Pediatric Society, 2006.

Grenier, Danielle, Denise Leduc. Canadian Pediatric Society (2008). Well Beings, 2<sup>nd</sup> Edition.

New Brunswick, Communicable Diseases Fact Sheets.

<http://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/diseases.html>

<http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/FactSheets/HeadLice-e.pdf>

New Brunswick Regulation 2009-139 under the Public Health Act. <http://laws.gnb.ca/en/showfulldoc/cr/2009-136//20160404>

Public Health Agency of Canada (PHAC) <http://www.phac-aspc.gc.ca/index-eng.php>

Thunder Bay District Health Unit (2008). Common Childhood Infections: Guide for Principals, Teachers and Child Care Providers.

## APPENDIXES

### APPENDIX A: NEW BRUNSWICK SCHOOL EXCLUSION GUIDELINES (2012)

Disease	Minimum exclusion period for cases
Diphtheria	Exclude until medical clearance (written note from MD)
Pertussis (whooping cough)	If high risk individuals are present, exclude until 5 days from the start of treatment OR, if no treatment was given, until 3 weeks elapsed since the onset of characteristic cough or until the end of cough, whichever occurs first.
Group A Streptococcal (GAS) infection (pharyngitis / tonsillitis (strep throat), scarlet fever, impetigo)	Exclude until 24 hours after starting antibiotic treatment.
MRSA (Methicillin-resistant Staphylococcus aureus)	Usually not required (unless skin lesions (e. g. boils) cannot be covered). Seek medical advice for contact sport participation.
Mononucleosis (EBV infection)	Not required.
Cytomegalovirus infection	Not required.
Measles	Exclude until 4 days from the onset of rash.
Mumps	Exclude until 5 days from the onset of gland swelling, if non immunized contacts are present.
Rubella (German measles)	Exclude until 7 days from the onset of rash.
Varicella (chicken pox)	Exclude until child feels well enough to return to school.
Shingles (herpes zoster)	Usually not required (unless skin lesions (spots) cannot be covered)
Fifth disease (erythema infectiosum "slapped cheek" syndrome)	Not required. Once rash appears, a child is no longer contagious.
Roseola infantum (sixth disease, exanthema subitum)	Not required.
Gastroenteritis (diarrhea and/or vomiting)	Exclude students who cannot maintain personal hygiene until diarrhea subsides. For certain causes of gastroenteritis and in outbreak situations, longer periods of exclusion may be needed. Contact Public Health for advice.
Hepatitis A	Exclude until 1 week from the onset of illness/jaundice.
HIV, Hepatitis B, Hepatitis C	Not required.
Conjunctivitis (Pink eye)	If there is a thick white or yellow discharge (with eyelids stuck together or crusted eyelashes), fever, eye pain or eyelid swelling or significant watery discharge exclude until seen by a doctor (at least 24 hours of treatment may be required before returning to school). Children with pink eyes who have no or minimal clear or watery discharge without fever, eye pain, or eyelid redness do not need to be excluded.
Cold sores (herpes simplex)	Usually not required (unless significant drooling that cannot be controlled).
Hand-foot-mouth disease	Usually not required (unless significant drooling that cannot be controlled).
Thrush (candida)	Not required.
Molluscum contagiosum	Not required.
Warts	Not required.
Scabies	Exclude until 24 hours after treatment.
Pediculosis (Head lice)	Not required.
Ringworms	Exclude until treatment started.
Pinworms	Not required.

**In the interest of continuation of education of the child, please contact Public Health for advice if the exclusion period for any illness exceeds 1 week.**

## **APPENDIX B: COMMUNICABLE DISEASE LETTERS TO PARENTS**

The following are examples of letters which the school may consider using in specific instances. Please see the specific disease entries in the communicable disease tables for recommended use.

These letters should be accompanied by disease-specific facts sheets; these can be found and printed from the government of NB's website – see following web link: <http://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/diseases.html>

Please feel free to edit the letter as needed.

**1) Scabies - letter to parents of an exposed children (to be accompanied by the NB fact sheet)**

**2 (a) Head Lice - letter for parents of other children in the same classroom as a confirmed case of head lice (to be accompanied by the NB fact sheet)**

**2 (b) Head Lice – letter for parent(s) of an affected child (to be accompanied by the head lice fact sheet)**

Whole classroom or school letters should rarely be sent; these could be considered if widespread parental panic is developing following one or more cases of a specific disease, or many cases of a similar disease are identified in a short period of time in the class or school (i.e. a possible outbreak is occurring). In these instances, please consult with your local Public Health office on best approaches and the need for further control measures to be implemented.

**1) Scabies - letter to parents of an exposed children (to be accompanied by the NB fact sheet)**

Date:

**Subject: Scabies**

Dear parent:

An individual in the school has been diagnosed with scabies. This is a skin disease caused by a tiny mite which lives under the skin. Scabies is not an indication of uncleanliness, and does not spread other diseases.

Scabies is spread from person to person by close contact with skin or clothing from someone with scabies. Since your child may have come in close contact with this disease we would like you to check your child for possible signs of this infection. Rashes most commonly occur between the fingers, around the wrists, elbows, waistline, abdomen and chest. In persons that have not had scabies before, these signs and symptoms may not occur for four to six weeks. This rash is usually very itchy.

If you are concerned that your child or someone else in the family has this condition, please see your family doctor so that a diagnosis can be made and treatment can be given. If one person in a family has scabies, it is recommended that all family members be treated. Other close contacts may require treatment as well. Please discuss this with your family doctor.

For more information, please see the attached fact sheet. Do not hesitate to call 811, your pharmacist or your physician should you have any further questions.

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Principal / teacher

Encl.

**2 (a) Head Lice - letter for parents of other children in the same classroom as a confirmed case of head lice (to be accompanied by the head lice fact sheet)**

Date:

**Subject: Head lice in your child's classroom**

Dear parent:

An individual in your child's classroom has been diagnosed with head lice. Head lice are not a sign of uncleanliness; they are common among schoolchildren who tend to have close direct or indirect head to head contact.

Since lice are easily transmitted from one person to another, either by head to head contact or sharing an affected person's headgear, pillow, hair brushes, etc. ), we urge you to examine your child's head carefully. Please see the attached fact sheet for further information on head lice and how to conduct a proper head examination.

If live lice are found on your child he/she will need to be treated; please notify the school if this is the case. You will find many safe and effective products at your local drugstore; consult your pharmacist for assistance. Please ensure you read and follow the instructions carefully.

Do not hesitate to call 811, your pharmacist or your physician should you have any further questions.

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Principal / Teacher

Encl.

**2 (b) Head Lice – letter for parent(s) of an infested child (to be accompanied by the head lice fact sheet)**

Date:

**Subject: Head lice found on your child**

Dear Parent(s):

We would like to bring to your attention that we have found live head lice on your child. Head lice are not a sign of uncleanliness; they are common among schoolchildren who tend to have close direct or indirect head to head contact, sharing pillows, head brushes, etc.

In order to control the spread of head lice in schools, it is important that you ensure your child is treated. Safe and effective treatments for head lice can be found at your local pharmacy; consult with your pharmacist. It is important that you read and follow the instructions carefully.

Please see the attached fact sheet for further information. Do not hesitate to call 811, your pharmacist or your physician should you have any further questions.

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Principal / Teacher

Encl.

**APPENDIX C: PUBLIC HEALTH OFFICES**

<b>MONCTON/SHEDIAC/RICHIBUCTO REGIONS</b>		
81 Albert Street Suite 300 <b>MONCTON, N. B.</b> E1C 1B3 Tel.:506-856-2401 Fax: 506-856-3544	342 Main St. , Unit 160 Centreville Mall <b>SHEDIAC, N. B.</b> E4P 2E7 Tel.: 506-533-3354 Fax: 506-856-3544	25 Blvd. Cartier, Unit 153 P. O. Box 5001 <b>RICHIBUCTO, N. B.</b> E4W 5R5 Tel.: 506-523-7607 Fax: 506-856-3544

<b>KEDGWICK/EDMUNDSTON/GRAND FALLS REGIONS</b>		
39 Notre-Dame St., Unit D <b>KEDGWICK, N. B.</b> E8B 1H5 Tel.: 506-284-3422 Fax: 506-735-3142	121 Church St., Suite 330 <b>EDMUNDSTON, N. B.</b> E3V 1J9 Tel.: 506-735-2065 Fax: 506-735-3142	131 Pleasant St. <b>GRAND FALLS, N. B.</b> E3Z 1G1 TEL.: 506-475-2441 FAX: 506-735-3142

<b>CAMPBELLTON REGION</b>
6 Arran St. <b>CAMPBELLTON, N. B.</b> E3N 1K4 Tel.: 506-789-2266 Fax: 506-789-2349

<b>BATHURST/CARAQUET/SHIPPAGAN/TRACADIE REGIONS</b>			
165 St. Andrew Street <b>BATHURST, N. B.</b> E2A 1C1 Tel.: 506-547-2062 Fax: 506-547-7459	295, Blvd. St-Pierre West <b>CARAQUET, N. B.</b> E1W 1B7 Tel.: 506-547-2062 Fax: 506-547-7459	239, Blvd. J.-D.-Gauthier <b>SHIPPAGAN, N. B.</b> E8S 1N2 Tel.: 506-547-2062 Fax: 506-547-7459	3520 Principale Street Tracadie Place <b>TRACADIE-SHEILA, N. B.</b> E1X1C9 Tel.: 506-547-2062 Fax: 506-547-7459

## APPENDIX D: HEALTH PROTECTION BRANCH (INSPECTORS)

### MONCTON REGIONS

81 Albert St.  
MONCTON, N. B.  
E3N 1K4  
Tel.: 506-856-2814  
Fax: 506-866-6122

### EDMUNDSTON REGIONS

121 Church St., Suite 330  
Edmundston, N. B.  
E3V 1J9  
Tel.: 506-737-4400  
Fax: 506-737-4495

### CAMPBELLTON REGIONS

113 Roseberry St, 2<sup>nd</sup> floor.  
Campbellton, N. B.  
E3N 2G6  
Tel.: 506-789-2549  
Fax: 506-759-6648

### BATHURST AND ACADIAN PENINSULA RETIONS

165 St-Andrews St.  
Bathurst, N. B.  
E2A 1C1  
Tel.: 506-549-5550  
Fax: 506-547-2332