Guidelines for the Control of Infectious Diseases and Outbreaks in Schools

Infection Prevention & Control Basics - Reportable Diseases - Outbreaks - Fact Sheets
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Introduction

Infectious diseases are a major cause of illness among school-aged children. There are numerous opportunities for infections to be passed from child to child within the school setting. Children have a higher risk of developing and spreading infections because they play closely together, spend a lot of time together, readily share their possessions, food and germs; and they are not always careful about their hygiene and they may lack immunity to various diseases.

Preventing the spread of infectious diseases in schools is most likely to be successful when the following are implemented:

- Effective and frequent hand hygiene - teaching children the skills of hand hygiene and cough etiquette is essential in breaking the chain of infection;
- Appropriate vaccination of staff and students, in line with the Immunization of School Pupils Act, has resulted in fewer childhood illnesses;
- Appropriate use of infection prevention and control measures in schools will minimize transmission of infection both within the school, but also to the wider community.

This manual is intended to provide information to school staff about common infections and to assist in preventing transmission of infections within the school setting. This guide will provide information about:

- The role of schools in reporting reportable diseases and outbreaks;
- The role of Elgin St. Thomas Public Health (ESTPH) in following up reportable diseases and outbreaks;
- Which diseases are reportable to ESTPH;
- When to exclude students with infectious diseases;
- Preventing the spread of infections;
- Common childhood disease information sheets that can be copied and shared as needed.

ESTPH hopes you find these guidelines to be a helpful resource and tool to use in your school and we look forward to receiving your feedback. For more information and/or to give feedback, please contact: Elgin St. Thomas Public Health, Infectious Diseases and Outbreak Reporting Line: 519-631-9900 ext. 1232.

Please note that this manual is for information purposes only and is not intended to provide legal advice and should not be relied upon as such. For statutory and legislative information, please refer to:

Health Protection and Promotion Act, R.S.O., 1990, c. H.7, s. 5, and s. 22
Immunization of School Pupils Act
Ontario Public Health Standards 2008 (revised 2016)
Ontario Regulation 559/91
Infection Prevention & Control Basics

What Causes Infections?

Germs, such as viruses, bacteria, parasites or fungi, may produce an infection. Each germ has different characteristics that attack the body’s defenses in different ways. Children are vulnerable to many of them because their immune systems are not well-developed.

Some germs can survive outside the body for hours or even days under the right conditions. For example, the influenza virus can survive for 5 minutes on the skin and up to 2 days on a hard surface such as a desk, computer keyboard or toy.

Not all infectious diseases are contagious. For example, ear infections are caused by germs that are not usually passed from person to person. Chickenpox on the other hand, rapidly spreads from person to person and is an example of a highly contagious infectious disease.

Common Childhood Infections

For information about common childhood infections, including signs and symptoms, how they spread, how to prevent spread and exclusion details, please refer to the health unit’s “Guide to Common Childhood Infections” available online at: www.elginhealth.on.ca/your-health/infectious-diseases/common-childhood-infections

Key Point: Prevent the Spread of Infection

An infected person may not get sick or feel sick while they spread their germs. Stop the spread of infection by cleaning your hands often; frequently cleaning and disinfecting commonly touched surfaces and items in the school environment; ensuring your immunizations are up-to-date; staying home when you are sick; seeking medical care when needed.
## How Do Infections Spread?

<table>
<thead>
<tr>
<th>Type of Contact</th>
<th>How Germs Spread</th>
<th>Where the Germs are Found</th>
<th>Examples of Infections</th>
</tr>
</thead>
</table>
| **Direct**      | - When a person is touched, coughed on, or kissed by an infected person.  
- When the blood from an infected person enters the blood stream of another person through a small cut, bite, or break in the skin.  
Body fluids, skin, and hair. Body fluids include:  
- Saliva  
- Eye discharge  
- Nose and mouth secretions  
- Blood  
- Oozing sores | Pink eye, impetigo, ringworm, pinworms, HIV/AIDS, hepatitis B and C. |
| **In-Direct**   | - When a person touches a surface or objects that has germs on it and then touches their eyes/nose/mouth.  
Toys, tables, doorknobs, light switches. | Cold viruses, influenza, ringworm, pinworms (through bed linens). |
| **Fecal-Oral**  | - When the germs in the stool of an infected person are ingested by another person.  
Toilet handles, toys, doorknobs, swimming pools, water parks. | Rotavirus, norovirus, salmonella, giardia, hepatitis A, shigella. |
| **Route**       | **How Germs Spread** | **Where the Germs are Found** | **Examples of Infections** |
| **Droplet**     | - When a person comes into contact with droplets from the nose or mouth of an infected person.  
- Droplets spread when the infected person talks, coughs, or sneezes.  
- Droplets can travel up to 2 metres and enter another person’s eyes, mouth, and nose.  
- Droplets can land on surfaces and live for hours. If someone touches the surface and then their face, they may become sick.  
Tables, desks, toys, computer keyboards, phones etc. | Cold virus, influenza, fifth disease, meningitis, mumps, whooping cough, strep throat. |
| **Airborne**    | - When a person inhales the airborne particles from the cough or sneeze of an infected person they may become sick.  
Airborne particles can remain in the air for several hours.  
In the air. | Chickenpox, measles, tuberculosis. |
| **Vector**      | - When a person is bitten by an animal or insect that carries an infection.  
Bats, mosquitoes, ticks. | Rabies, West Nile virus, Lyme disease. |

(Wellington, Dufferin, Guelph Public Health, 2010)
The Chain of Infection

Infectious Agent
(Bacteria, Virus, Parasite)

Break the Chain: Immunize; recognize high risk staff/students

Susceptible Host
(Someone who is vulnerable to infection i.e. babies, seniors, people with weak immune systems)

Break the Chain: Clean your hands; don’t touch your face; cover skin lesions; wear appropriate personal protective equipment (i.e. gloves, masks)

Portal of Entry
(How germs get into a new host e.g. through broken skin; through mucous membranes such as the eyes, nose, or mouth)

Break the Chain: Clean your hands; use insect repellent; clean and disinfect environmental surfaces & items; ensure adequate ventilation; proper food handling, exclusion/isolation

Reservoir
(Where the germs live e.g. animals, humans, food, water, frequently touched surfaces and items such as door knobs & computer keyboards)

Break the Chain: Educate/develop policies; environmental cleaning and disinfection

Mode of Transmission
(How the germs are spread e.g. through direct contact with contaminated hands; by breathing in germs in respiratory droplets; through the bite of an insect)

Portal of Exit
(How the germs leave the host i.e. through the respiratory tract by sneezing and coughing, through the gastrointestinal tract – stool; through skin, blood, and urine)

Break the Chain: Clean your hands; cover your coughs and sneezes; control excretions; properly dispose of waste

Break the Chain: Diagnosis/Treatment

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Break the Chain: Diagnosis/Treatment
Preventing Infections

**Routine Practices**

Routine practices refers to a combination of actions and infection prevention and control practices that should be used when providing direct care (i.e. first aid) to anyone. Routine practices are based on the idea that every person should be treated as if they may have an infection that could be spread to others.

Routine practices include:

- Hand hygiene
- Cough and sneeze etiquette
- Immunization
- Use of personal protective equipment such as gloves/masks
- Environmental cleaning and disinfection

Ensuring your school has an adequate stock of the following supplies and products will help support infection control practices in the school setting:

- Soap
- Alcohol-based hand sanitizer
- Toilet paper
- Paper towels
- Tissues
- Garbage bags
- Cleaning supplies

The following section provides information about the practical steps that anyone can take in a school setting to reduce the risk or acquiring or transmitting germs.
**Hand Hygiene**

Hand hygiene is the number one way to prevent the spread of infections.

**Did you know...?** Hands spread about 80% of infections like the common cold and influenza.

Make hand hygiene a part of your daily routine:

- Teach students how to effectively clean their hands with soap and water or an alcohol-based hand sanitizer.
- Ensure that students and staff always clean their hands:
  - Before eating or handling food
  - After using the washroom
  - After coughing, sneezing or blowing your nose or helping a student to do the same
  - After shaking hands
  - After touching animals or animal waste
  - Before touching your face
  - After handling garbage
  - Before and after caring for a sick person
- Place hand sanitizers in easily accessible locations (i.e. outside of each classroom, near tissue boxes, above garbage cans).
- Supervise students when they wash their hands or use hand sanitizer.
- Hand hygiene posters are available from ESTPH upon request.

**Key Point: Choosing Soap**

A mild liquid soap in a dispenser works best. Antimicrobial or germicidal soaps are not necessary or recommended for use in schools as they kill both helpful and harmful bacteria. Bar soap is also not recommended for use in schools as it is shared by too many hands and may spread germs. Germs can also grow on the bar and in the dish.

**Best Practice Recommendation**

Discard or replace your soap dispenser when it is empty or clean and refill it. Don’t top it up with fresh soap – this practice has been shown to spread germs.

(Canadian Paediatric Society, 2008)
Using Soap and Water

1. Remove jewelry. Wet hands with warm water. Use liquid soap if possible. Apply a small amount about the size of a nickel or quarter. Antibacterial soap isn't necessary.
2. Rub your hands together until the soap forms a lather and then rub all over your hands, between your fingers and under the finger nails.
3. Continue rubbing for 15-20 seconds. Encourage students to wash their hands for as long as it takes to sing the ABCs or Happy Birthday.
4. Rinse your hands well under running water.
5. Dry your hands using paper towel. Use the paper towel to turn off the faucet and open the door.

Important points:

Always use soap and water:
1. When your hands look dirty
2. Before you eat or prepare food
3. After using the washroom or changing a diaper.
Using Alcohol-Based Hand Sanitizer

1. Remove jewelry. Apply a small amount, about the size of a quarter, to your hands.
2. Use a rubbing motion to spread the sanitizer all over your hands, between the fingers, the finger tips, back of hands and under the fingernails.
3. Rub until your hands feel dry, about 15 seconds.

**Important points:**

1. Use alcohol-based hand sanitizer when hands aren’t visibly dirty.
2. Alcohol-hand sanitizer should contain at least 70% alcohol or isopropanol.
3. Alcohol-based hand sanitizer is safe to use with children, as directed, but ingestion could be dangerous. Use only with supervision.
4. Keep products in a secure location, away from open flame and high temperatures.
**Cough and Sneeze Etiquette**

Teach students to cover their mouth and nose with a tissue when they cough or sneeze. If a tissue isn’t available, encourage students to cough or sneeze into their upper sleeve or elbow, not in their hands.

- Have plenty of tissues available for runny noses, coughs and sneezes.
- Tissues should be available in all classrooms.
- All soiled tissues should be disposed of in covered wastebaskets.
- Remind students to clean their hands after using tissues.

**Did you know...?** Respiratory droplets forcibly expelled from a cough or sneeze travel for up to two metres.

**Stay Home When You Are Sick**

Staff and students should not be at school when they are sick.

- For common colds and other typical illnesses, staff and students should be advised to stay home until they feel well for one full day.
- If you are aware that a reportable disease has been diagnosed (e.g. someone has a Salmonella infection), contact ESTPH about length of time to exclude ill students and staff.

See page 24 for specific exclusion requirements for common childhood infections.

**Immunization**

The Immunization of School Pupils Act (ISPA) requires that students attending schools in Ontario be immunized against tetanus, diphtheria, polio, measles, mumps, rubella, and as of July 2014, pertussis, meningococcal disease and chickenpox. The chickenpox vaccine will only be required for children born on or after January 1, 2010 and who have not already had the infection. Under the Act, ESTPH is required to maintain immunization records of all students in public and Catholic schools in Elgin County and the City of St. Thomas. Between March and June of each year, the Vaccine Preventable Disease

**Useful Website**

For the Ontario Immunization Schedule, please visit:

**Ministry of Health and Long-Term Care**

Team enforces the ISPA. The team reviews immunization records of all students and can suspend students who have “incomplete” or “no immunization history” for up to 20 days. Parents may decide because of medical, religious or philosophical reasons not to immunize their child. The ISPA allows for exemptions based on medical or philosophical grounds. A notarized Statement of Conscience or Religious Belief Affidavit must be signed and on file at Public Health. It is parents' responsibility to provide proof of immunization or exemption to Public Health. For more information, please call Elgin St. Thomas Public Health at 519-631-9900 and ask to speak with a nurse on the Vaccine Preventable Disease Team or visit www.elginhealth.on.ca/your-health/immunization/school-age-immunizations

**Personal Protective Equipment**

Protective barriers like disposable gloves reduce the risk of infection transmission. Protective barriers should always be worn when there is chance that you will come into contact with blood, body fluids and/or open sores of another person (e.g. if you have to touch a student’s wound). Single use disposable gloves provide a barrier between the skin of your hands and the potentially infected body fluids. They also protect the other person from the germs that might be on your hands. Hands should be washed before and after using gloves. Gloves are not a substitute for hand hygiene. The process of taking off contaminated gloves can sometimes result in transferring germs to your own hands, so cleaning your hands after use should be as important as using the gloves.

Heavy duty rubber gloves that are re-usable or shared are often provided for environmental cleaning tasks. These gloves should be cleaned thoroughly after each use and hands should also be cleaned after removing these gloves.
**Cleaning & Disinfection**

Proper cleaning and disinfection will help stop germs from spreading and making people sick. Cleaning is just as important as disinfecting.

**Clean**
To remove dirt and germs from a surface by using friction, soap or detergent, and water.

**Disinfect**
To kill germs by using a chemical solution such as chlorine bleach, quaternary ammonium compounds (QUATs), or accelerated hydrogen peroxide.

---

**Steps to Cleaning and Disinfecting Environmental Surfaces and Items**

**Step 1**
**CLEAN/WASH**
- Scrub using detergent and clean water
- To loosen dirt and debris on surfaces

**Step 2**
**RINSE**
- Use clean, warm water
- To remove soap residue, dirt and debris from surfaces

**Step 3**
**DISINFECT**
- Use chlorine, quaternary ammonium (quats) or other approved disinfectant
- To kill most harmful germs

**Step 4**
**AIR DRY or wipe dry with a disposable towel**
How to disinfect?

After cleaning the surface, choose one of these four methods:

1. Apply an approved disinfectant; or
2. Immerse the object in a container of disinfecting solution. Remove the object and allow it to air dry; or
3. Wash and disinfect objects in a commercial dishwasher; or
4. Wipe the surface of large toys or objects that may be harmed by saturation (i.e. book covers, puzzles) with a clean cloth moistened with disinfectant.

What areas to focus on?

- Washrooms
- Toys, crafts and sensory play tables
- Common areas
- Areas where there is food

Mixing Bleach and Water

**High Level Disinfectant (1:10)**

5000 parts per million

For cleaning up blood or body fluid spills.

- Slowly add 250 ml (1 cup) of bleach to 2250 ml (9 cups) of water when preparing solution
- Leave on surface for 10 minutes

**Intermediate-High Level Disinfectant (1:50)**

1000 parts per million

For use in washrooms during outbreaks of vomiting & diarrhea.

- Slowly add 20 ml (4 teaspoons) of bleach to 1000 ml (4 cups) of water when preparing solution
- Leave on surface for 10 minutes

**Intermediate-Level Disinfectant (1:100)**

500 parts per million

For routine use on floors, walls, washrooms, countertops, tables, and toys.

- Slowly add 10 ml (2 teaspoons) of bleach to 1000 ml (4 cups) of water when preparing solution
- Leave on surface for 2 minutes

For a more precise calculation of how to mix bleach and water to achieve the desired concentration, calculated in parts per million (PPM), use the bleach dilution tool at:

**Blood and Body Fluids Spills**

Cleaning blood and body fluids may require the use of personal protective equipment. Follow the recommendations in the chart below to properly clean and disinfect surfaces and laundry soiled by blood and body fluids.

<table>
<thead>
<tr>
<th>Body Fluid</th>
<th>Mask</th>
<th>Gloves</th>
<th>Surface Cleaning and Disinfecting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>No</td>
<td>Yes</td>
<td>Use disposable paper towels to soak up excess blood or body fluids before cleaning. Discard in a plastic lined garbage container. Wash area with hot water and detergent, then rinse. Disinfect the area with a fresh chlorine bleach solution (use 1:10 dilution with 1 cup bleach to 9 cups water and leave on surface for 10 minutes).</td>
</tr>
<tr>
<td>• Hepatitis B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hepatitis C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• HIV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Note: Blood-borne infections are very rare in children and the risk of transmission in the school setting remains extremely low).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomit/Stool</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hepatitis A</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Norovirus</td>
<td>(vomit only -masks should be used because some germs can go into the air during cleaning and be swallowed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Salmonella</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• E. coli</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Enhanced Environmental Cleaning & Disinfection

ESTPH recommends the following enhanced environmental cleaning and disinfection practices to minimize the spread of infection due to vomiting and diarrhea. These enhanced practices are in addition to general, routine cleaning practices:

✓ To clean a surface means to remove all material first and then wash visible dirt away with soap and water. To disinfect means to kill invisible germs on a surface (with bleach or substitute product). A surface must be cleaned before it can be disinfected.

✓ Bleach is the best product to use to disinfect. Use unscented bleach when possible. Household bleach typically comes in 5.25% concentration. Dilute this concentration with water to a 1:50 bleach to water ratio. For example, put 20 ml (4 teaspoons) of household bleach into 1000 ml (4 cups) of water. This is equivalent to 200 ml bleach in 10 L of water (i.e. for the purpose of a mop bucket). Make sure to let the bleach solution sit on the surface for at least 1 minute before wiping up.

✓ If bleach cannot be used, choose a product that kills Norwalk and Norwalk-like viruses. Accelerated Hydrogen Peroxide products are an example of an effective bleach substitute. Follow the manufacturer’s guidelines with respect to safe usage and for required contact time.

✓ Do not ‘double-dip’ cleaning cloths. A cloth should not go into the disinfectant solution more than once and should be used on only one surface.

✓ Do not re-use a dirty cloth. Keep dirty cloths away from clean ones. It is best to keep all dirty cloths together in a hard bucket or plastic bag until they can be laundered.

✓ Bathrooms must be cleaned and disinfected at least once per day and more often if possible.

✓ Frequently touched items/surfaces (e.g. doorknobs, stair rails) must be cleaned and disinfected. These areas need to be disinfected at least once per day and more often if possible.

✓ To prevent spreading germs, clean surfaces from low-touch to high-touch areas and from top to bottom.

✓ Vomiting and/or diarrhea should be cleaned up immediately. To clean, do the following:
  1. Put on gloves.
  2. Soak up vomit/diarrhea. It is best to use disposable products. If disposable products are not available, use clean cloths or a mop. Place dirty linen in a container until it can be laundered.
  3. Soak area with disinfectant solution. Avoid splattering dirt by not spraying solution.
  4. Let solution sit for 10 minutes to ensure area is thoroughly disinfected.
  5. Soak up area with a clean mop. Place dirty mop in a container until it can be laundered.
  6. Remove gloves and wash hands with soap and water or alcohol-based hand sanitizer.
Bug Bite Prevention – Vector Borne Diseases

Vector-borne diseases are illnesses that are spread through the bite of an infected tick or mosquito.

Two major vector-borne diseases of public health importance in Ontario are West Nile virus and Lyme disease.

**Lyme Disease**

Lyme disease is caused by a bacterium that spreads through the bite of an infected deer (blacklegged) tick. Not all ticks can carry Lyme disease, and the tick has to be attached for at least 24 hours to be able to transmit the bacteria. It is important to quickly and properly remove the tick and have it identified to know the risk of getting Lyme disease.

Symptoms of Lyme disease usually begin between three days and one month after being bitten by an infected tick. Prompt antibiotic treatment is usually effective. Early symptoms of Lyme disease may include; fever, headache, muscle and joint pain, fatigue and an expanding red rash.

Ticks like areas with tall grass, marshlands and bushes, and they get on people who walk through these areas. Ticks cannot jump or fly.

**How to avoid tick bites**

- Make sure students are properly dressed (light coloured clothes, long sleeves, pants tucked into socks and close-toed shoes)
- If walking in woodsy areas have students stick to paths
- Use insect repellent as appropriate

**How to properly remove a tick on yourself or a student**

- Use fine-tipped tweezers to grab the tick close to the skin and pull the tick straight out
- Do not squeeze the tick or put anything on it
- Clean the bite with rubbing alcohol and/ or soap and water
- Place the tick in a hard container (e.g. food container, specimen jar)
- Inform the parents/guardians about the tick and have them complete the Tick Submission worksheet and submit the tick to Elgin St. Thomas Public Health

**If your school has a naturalized areas**

- Provide education to kids to stick to pathways
- Encourage reporting of tick bites
- Teach students not to pick them off and throw them away
- Have the parents/guardians complete a ‘tick check’
Information for parents

- After being in an area that may have ticks, have the child shower and towel off to remove loose ticks
- Complete a ‘tick check’: check underarms, neck and groin area for ticks
- If a tick has been removed place it in a hard container, complete the Tick Submission worksheet and submit the tick to Elgin St. Thomas Public Health
- Watch for symptoms such as fever, chills, headache or the bull’s eye rash (but not everyone will get this rash)
- Talk with your doctor

More information on ticks, Lyme disease, and the Tick Submission worksheet can be found at www.elginhealth.on.ca

West Nile Virus

West Nile Virus is a disease transmitted to humans by mosquitoes throughout Ontario.

Most individuals bitten by an infected mosquito do not show any symptoms.

Of those who show symptoms, most will experience mild illness including headache, body ache, fever, nausea, vomiting and rash on chest, back or stomach. Very few (less than 1% of persons infected) develop serious symptoms including high fever, muscle weakness, stiff neck, severe headaches, numbness, confusion, tremors and a sudden sensitivity to light.

How to avoid mosquito bites

- Make sure students are properly dressed (light coloured clothes, long sleeves and pants)
- Use insect repellent as appropriate
- Get rid of standing water around the school. This is especially important to do after heavy rainfall has occurred or during hot humid weather
- Adult mosquitoes like dense shrubbery. Keep bushes and shrubs clear of overgrowth and debris

More information on mosquitoes and West Nile Virus can be found at www.elginhealth.on.ca
Role of the School

**Student Illness**

School personnel are legally required to report infectious diseases on the reportable disease list that may have been diagnosed in students at the school (see page 25 for a list of reportable diseases). The Health Protection and Promotion Act (HPPA), R.S.O. 1990, c. H.7, Section 28 states:

“The principal of a school who is of the opinion that a pupil in the school has or may have a communicable disease shall, as soon as possible after forming the opinion, report thereon to the medical officer of health of the health department in which the school is located.”

The HPPA allows for the following information to be reported to Public Health in respect to a pupil with an infectious disease:

- ✔ Name and address in full
- ✔ Date of birth in full
- ✔ Sex
- ✔ Name and address in full of the school that the child attends

It is not necessary for school personnel to confirm a diagnosis of a reportable infectious disease with the physician of a student prior to reporting the disease to the health unit.

**Staff Illness**

The HPPA does not require the principal to report illness of staff members. There may be circumstances when it would be important for health unit staff to be aware of an illness in a staff member so that classroom notification may occur. In these cases, the permission of the staff member to share this information should be obtained prior to reporting the information to the health unit. Alternatively, the staff member can be given the option to report the information themselves so that the appropriate follow-up or investigation can occur. However, reportable diseases in all persons of all ages are also reported to public health by laboratories and physicians. In circumstances where a staff person has a reportable disease, the health unit will be aware and take appropriate action if indicated in order to protect other staff and students.
Role of the Health Unit

The Communicable Disease Team at ESTPH will confirm and follow-up all information provided by the school, with the physician and case or family.

The Communicable Disease Team will provide recommendations to prevent the further spread of the disease in the school or community. Depending on the disease, the follow-up may include one or more of the following:

- Review of immunization status of students in a classroom or throughout the school
- Provide an information letter to parents/caregivers, students and staff
- Recommend exclusion of certain students from the school who are not appropriately or fully immunized or whose medical conditions may put them at a high risk if they develop a reportable disease (i.e., students undergoing chemotherapy)
- Recommend certain students/staff receive specific preventive antibiotics or immunization
- Offer an antibiotic clinic or immunization clinic on-site at the school for students/staff if needed

Confidentiality

When dealing with health information, everyone has a right to privacy. Personal information can only be gathered and used in a restricted way and the identity of students or staff will not be released to the community or to other individuals at the school. The Medical Officer of Health (MOH) is the Health Information Custodian for Elgin St. Thomas Public Health. The MOH and all persons who act as agents of the MOH (all public health staff) have the responsibility to ensure that personal health information is collected, used, stored and shared with full regard for the protection of privacy and the confidentiality of personal health information.
Reporting Reportable Diseases

How to report?

If you suspect or have confirmation of a reportable disease:

Call Elgin St. Thomas Public Health at
519-631-9900 ext. 1232
Your quick response will help prevent additional students and staff from getting sick.

Note: Influenza is a common reportable disease in schools during the flu season (Oct – Apr) each year. Influenza may cause a sudden increase in student absenteeism. Schools are not required to report individual cases of influenza in students or staff members, but are requested to report when absenteeism rates rise significantly. See page 27 for more information about increased student absenteeism rates.

What to report?

Be prepared to provide the following information:

- The student’s name and address in full
- The student’s date of birth in full
- The name and address of the school that the student attends & the classroom
- The list of symptoms
- The date of symptom onset
Common Reportable Diseases in Schools

The HPPA lists a number of reportable diseases or diagnoses (see page 25 for a list). School staff will most commonly encounter only a few of these diseases in students or staff in the school setting. The majority of illnesses in students and staff are non-reportable. Physicians, hospitals and labs are also required to report all reportable diseases. The more serious diseases, such as meningitis, are most often reported directly from the hospital. The most commonly reported illnesses from schools include:

<table>
<thead>
<tr>
<th>Type of Infection</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenteritis (Diarrhea, Vomiting)</td>
<td>High student absenteeism rates may be due to norovirus. Gastroenteritis is common in the winter. Report clusters of cases.</td>
</tr>
<tr>
<td>Respiratory Infections (Influenza -fever, cough, headache, body aches; Colds)</td>
<td>High student absenteeism rates are often due to influenza. Influenza season is between Oct – Apr. Report clusters of cases. Note: Schools are not required to report cases in individual students.</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>Report the total cases using the tracking sheet on page 44. Note: The health unit will follow up with the case/parent of the case to collect additional information in the following circumstances: ✓ Student was hospitalized due to chickenpox ✓ Student develops serious complications due to chickenpox ✓ Student passes away due to complications of chickenpox</td>
</tr>
</tbody>
</table>

Symptoms that May Indicate a Communicable Disease

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>Elevated body temperature especially if other symptoms such as vomiting, sore throat, diarrhea, headache, stiff neck or undiagnosed rash are present. Note: The child may have a communicable disease without having a fever.</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>Unexplained diarrhea; nausea; vomiting; stomach cramps (child may curl up).</td>
</tr>
<tr>
<td>Respiratory Symptoms</td>
<td>Coughing; wheezing; sneezing; runny nose and eyes; earache (child may pull on or rub ear).</td>
</tr>
<tr>
<td>Eye/nose drainage</td>
<td>Mucus or pus draining from an eye or nose.</td>
</tr>
<tr>
<td>Sore throat</td>
<td>Sore throat, especially when other symptoms such as fever, decreased appetite, or difficulty swallowing are present.</td>
</tr>
<tr>
<td>Skin problems</td>
<td>Undiagnosed rashes, itchiness; tiny white bumps on shafts of hair. Sores with crusty, yellow or green drainage.</td>
</tr>
<tr>
<td>Appearance/behavior</td>
<td>Poor appetite; unusual behavior (child may want to be left alone or may be clingy); sleepiness/lethargy; irritability.</td>
</tr>
<tr>
<td>Unusual colour</td>
<td>Eyes or skin - yellow (jaundice) Stool - grey or white Urine - dark, tea coloured</td>
</tr>
</tbody>
</table>
# Exclusion - Quick Reference Chart

Refer to the following chart when determining whether to exclude staff/students:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Exclusion Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhea (e.g. Norovirus, Rotavirus)</td>
<td>Exclude symptomatic food handlers, staff and students until symptom free for at least 24 hours or until a physician determines the diarrhea is not infectious.</td>
</tr>
<tr>
<td>E. coli</td>
<td>Exclude symptomatic food handlers, staff and students until two consecutive stool specimens or rectal swabs taken at least 24 hours apart are negative.</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>Exclude symptomatic food handlers, staff and students for one week after the start of jaundice or for 2 weeks after the start of illness if no jaundice present.</td>
</tr>
<tr>
<td>Impetigo</td>
<td>Exclude until 24 hours after the start of appropriate antibiotic treatment and are feeling well enough to take part in activities.</td>
</tr>
<tr>
<td>Influenza</td>
<td>Exclude until fever free for 24 hours and well enough to take part in activities.</td>
</tr>
<tr>
<td>Measles</td>
<td>Exclude until at least 4 days after the onset of rash. Non-immune children and staff must also be excluded from 5 days after the first exposure and up to 21 days after the last exposure, unless they: 1) can be immunized within 72 hours from the first exposure; 2) show lab confirmation of immunity or, 3) have received immune globulin.</td>
</tr>
<tr>
<td>Meningitis, bacterial</td>
<td>Exclude until 24 hours after the start of antibiotic treatment and well enough to take part in activities.</td>
</tr>
<tr>
<td>Mumps</td>
<td>Exclude until 5 days after the onset of swelling of the glands at the jaw line on one or both sides of the face.</td>
</tr>
</tbody>
</table>
| Pink eye, bacterial and viral (Conjunctivitis)| Exclude until seen by a healthcare provider.  
**Bacterial pinkeye:** Exclude until 24 hours after the start of treatment.  
**Viral pinkeye:** Return to school with the approval of a healthcare provider. |
| Ringworm                                     | Exclude until appropriate treatment has started.                                                                                                          |
| Rubella (German Measles)                     | Exclude for 7 days from the onset of rash.                                                                                                                  |
| Scabies                                      | Exclude until 24 hours after appropriate treatment is first applied.                                                                                      |
| Strep Throat/Scarlett Fever                  | Exclude until 24 hours after the start of appropriate antibiotic treatment and are feeling well enough to take part in activities.                     |
| Whooping Cough (Pertussis)                   | Exclude until 5 days after the start of treatment or three weeks from onset of “whooping” cough if no treatment is given.                              |

The following illnesses do NOT require exclusion, unless the child is not well enough to participate in regular activities:

- Chickenpox
- Ear infections
- HIV
- Cold sores
- Fifth Disease
- Roseola
- Colds
- Hand, Foot, Mouth Disease
- Shingles
- Cytomegalovirus
- Hepatitis B
Timely reporting of communicable diseases is essential for their control. If you **suspect or have confirmation** of the following “Reportable Communicable Diseases” or their “etiologic agents”, (as per Ontario Reg 559/91 and amendments under the Health Protection and Promotion Act) please report them to the local Medical Officer of Health.

<table>
<thead>
<tr>
<th><strong>IMMEDIATE</strong></th>
<th>Call 519-631-9900 ext.1232 (Mon. - Fri. 8:30 am - 4:30 pm)</th>
<th>Call 519-631-9900 ext. 0 (After hours and holidays)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthrax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Botulism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. coli (Verotoxin-Producing E. coli infection indicator conditions, including Hemolytic Uremic Syndrome)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food poisoning, all causes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastroenteritis, institutional outbreaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A Streptococcal disease, invasive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza, in institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lassa fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal disease, invasive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poliomyelitis, acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rabies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory infection, institutional outbreaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smallpox</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yersiniosis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>WITHIN 24 HOURS</strong></th>
<th>Call 519-631-9900 ext.1232 -or- Fax 519-631-1682 (Mon. - Fri. 8:30 am - 4:30 pm)</th>
<th>Call 519-631-9900 ext. 0 (After hours and holidays)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brucellosis</td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>Cholera</td>
<td>Mumps</td>
<td></td>
</tr>
<tr>
<td>Clostridium difficile associated disease (CDAD) outbreaks in Public Hospitals</td>
<td>Paralytic Shellfish Poisoning (PSP)</td>
<td></td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Paratyphoid fever</td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenza b disease, invasive</td>
<td>Pertussis (Whooping Cough)</td>
<td></td>
</tr>
<tr>
<td>Hantavirus Pulmonary Syndrome</td>
<td>Plague</td>
<td></td>
</tr>
<tr>
<td>Hemorrhagic Fevers, including 1. Ebola virus disease</td>
<td>Rubella and Congenital Rubella Syndrome</td>
<td></td>
</tr>
<tr>
<td>2. Marburg virus disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Other viral causes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis, viral 1. Hepatitis A</td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>2. Legionellosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Listeriosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>1. Measles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mumps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Paralytic Shellfish Poisoning (PSP)</td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>4. Paratyphoid fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Pertussis (Whooping Cough)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Plague</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Rubella and Congenital Rubella Syndrome</td>
<td>Paralytic Shellfish Poisoning (PSP)</td>
<td></td>
</tr>
<tr>
<td>8. Salmonellosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Severe Acute Respiratory Syndrome (SARS)</td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>10. Shigellosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Tuberculosis, active TB and latent TB</td>
<td>Measles</td>
<td></td>
</tr>
<tr>
<td>12. Tularemia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Typhoid Fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. West Nile Virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Yellow Fever</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>NEXT WORKING DAY</strong></th>
<th>Call 519-631-9900 ext.1232 -or- Fax 519-631-1682 (Mon. - Fri. 8:30 am - 4:30 pm -and- after hours and holidays)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquired Immunodeficiency Syndrome (AIDS)</td>
<td>Gonorrhea</td>
</tr>
<tr>
<td>Acute Flaccid Paralysis (AFP)</td>
<td>Group B Streptococcal disease, neonatal</td>
</tr>
<tr>
<td>Amebiasis</td>
<td>Hepatitis, viral</td>
</tr>
<tr>
<td>Campylobacter</td>
<td>1. Hepatitis B/Hepatitis C</td>
</tr>
<tr>
<td>Chancroid</td>
<td>Influenza</td>
</tr>
<tr>
<td>Chickenpox (Varicella)</td>
<td>Leprosy</td>
</tr>
<tr>
<td>Chlamydia trachomatis infections</td>
<td>Lyme Disease</td>
</tr>
<tr>
<td>Creutzfeldt-Jakob Disease, all types</td>
<td>Malaria</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>Meningitis, acute</td>
</tr>
<tr>
<td>Cyclosporiasis</td>
<td>1. Bacterial</td>
</tr>
<tr>
<td>Encephalitis, including</td>
<td>2. Viral</td>
</tr>
<tr>
<td>1. Primary, viral</td>
<td></td>
</tr>
<tr>
<td>2. Post-infectious</td>
<td></td>
</tr>
<tr>
<td>3. Vaccine related</td>
<td></td>
</tr>
<tr>
<td>4. Sub-acute sclerosing panencephalitis</td>
<td></td>
</tr>
<tr>
<td>5. Unspecified</td>
<td></td>
</tr>
<tr>
<td>Giardiasis, except asymptomatic cases</td>
<td>作了: Trichomoniasis</td>
</tr>
</tbody>
</table>

May 2016
Special Considerations

**Children/Staff who are Immune-Suppressed**

Parents of students who have immune-suppressing medical conditions or who are receiving treatments that may decrease their ability to fight an infection are advised by their specialist to speak with their child’s teacher regarding exposure to infectious diseases.

School staff should inform parents of children who are immune-suppressed when there is chickenpox activity in the school, especially if it is in the same classroom. If there has been significant exposure, these children will receive a preventative injection called VZIG, usually at the hospital. Children who are immune-suppressed include those with leukemia or other cancers, or who have had organ transplants such as a liver or a kidney transplant.

(Region of Waterloo, 2014)

**Pregnancy**

If you are pregnant or planning to become pregnant:
1. Review your immunization status and your job with your health care provider;
2. Avoid contact with people who appear ill; and
3. Clean your hands often.

There are some infections that can cause harm for someone who is planning a pregnancy or who is already pregnant. Women working in settings where infections are common should speak with their health care provider about whether or not there may be risks to them if they are exposed to or develop certain infections. Testing ahead of time may be helpful in determining if the woman may already be immune to some of the diseases that may be of concern during pregnancy.

**Chickenpox and Pregnancy**
✓ See page 32 for a fact sheet.

**Fifth Disease and Pregnancy**
✓ See page 35 for a fact sheet.

**Useful Websites**

For information about infections in children who are immune-suppressed, please visit:

Canadian Paediatric Society - Caring for Kids
www.caringforkids.cps.ca/

For information about infections and pregnancy, please visit:

Elgin St. Thomas Public Health
www.elginhealth.on.ca/your-health/infectious-diseases/infections-pregnancy

Motherisk
www.motherisk.org/

Society of Obstetricians and Gynaecologists of Canada
https://sogc.org/
**Student Absenteeism**

Influenza is a common infection in schools during the influenza season (Oct – Apr) each year and may cause a sudden increase in student absenteeism. Schools are **not** required to report individual cases of influenza in students or staff members, but are requested to report when absenteeism rates rise significantly.

**Possible Flags for Concern:**

- **>10% absenteeism** – common flag used in public health to determine if an outbreak is occurring
- **>2 times the all school average** – if a school has more than double the average of students absent than all schools put together, it should be investigated further
- **>2 times the school average from the previous year** – if the weekly absenteeism rate is higher than twice the typical school average from the previous year, it should be investigated further
- **>2 times the school’s average of that month from the previous year** – if for example, the student absenteeism in the first week of April is more than twice the absenteeism of that month in the previous year, it should be investigated further

Increased absenteeism rates in school children are often a first indication that influenza (or occasionally norovirus) has appeared in the community. Reporting this type of absenteeism from schools assists the health units in surveillance for this disease and in alerting health care facilities in the area to increase their preparation.

Schools may also report clusters of illness within a classroom or area (e.g. several students are away with diarrhea, nausea or vomiting). The health unit will investigate as appropriate to determine the possible cause of the illness and ensure there is no food or water-related issues.

**Automated Reporting**

Student absenteeism data is sent by the Thames Valley District School Board to Elgin St. Thomas Public Health, Middlesex-London Health Unit and Oxford County Public Health at the beginning of each week. The data includes students who were absent during the previous week of school.

The weekly report provides the name of the school and the average proportion of students were who absent that week due to injury or illness. The reason for absence is self-reported to the school when the school is notified of an absence. The weekly report also includes “Flags” or “Areas of Concern”. These flags should be considered reasons to investigate the data further. A flag doesn’t necessarily indicate a real problem or an outbreak at a specific school, however, public health will follow-up with the school if there are one or multiple flags indicating an unusual pattern of absences at a particular school.

**Telephone Reporting**

Schools may continue to report increased absenteeism rates by telephone to Elgin St. Thomas Public Health at 519-631-9900 ext. 1232, especially if a school is not reporting data to the Board office.
Outbreaks

What is an Outbreak?

An outbreak is an increase in the number of children or staff absent due to infectious illness above what you would normally expect over a defined period of time. Often in the school setting it is difficult to determine if an outbreak exists.

The following are examples of confirmed or suspected outbreaks that should be reported by the school to public health. If your school has a situation that does not fit the criteria below but you think an outbreak might be occurring, it is a good idea to consult with the health unit.

**An outbreak may be occurring if:**

1. Several children, in the same classroom, have similar symptoms.

2. There is an increase in school absences (>10%), with many parents/caregivers reporting similar symptoms.

3. 2 or more children are diagnosed with the same reportable disease (e.g. salmonellosis).

4. A single case of a highly infectious disease (e.g. measles) exists, or is suspected.

If the situation does not fit into any of the above categories but you think an outbreak might be occurring, speak to your school public health nurse or call the health unit for guidance at 519-631-9900 ext. 1232.
Reporting Outbreaks

Reporting outbreaks in schools serves many purposes. The immediate goal is to control the spread of infection. Additionally, information gained from an outbreak investigation can help schools and public health identify and eliminate sources of infection such as contaminated products, learn about emerging issues, and implement new strategies for infection prevention within schools.

How to report?

If you suspect an outbreak, call Elgin St. Thomas Public Health at 519-631-9900 ext. 1232 or speak to your school nurse. Your quick response will help prevent additional students and staff from getting sick.

What to report?

- The number of students and staff in the school
- The number of students and staff that are ill
  - Let the health unit know if the illness is affecting students in one specific area of the school or in 1-2 classrooms/school groups
  - Provide the average number of days students and staff are away ill
  - Advise the health unit of any hospitalizations due to illness
  - Provide daily updates
- Compile a list of extracurricular activities, clubs and special events that were held in the 2 weeks prior to the first illness
- A list of any foods served in the school in the 2 weeks prior to the first illness
- The usual rate of absenteeism for the school
- Public health may ask you to start a line list with:
  - The ill students names
  - The classroom of the ill students
  - The date the illness started
  - The type of illness (list of symptoms)
  - The contact information for the ill students or their parents
- At the beginning of the year, remind parents to report if their child is away from school due to vomiting, diarrhea or respiratory illness.
Outbreak Management and Control

**Surveillance**

Look for new cases among students and staff. Be alert for illness among exposed persons. Keep track of cases on a line list. See page 45 for a sample line list.

When a student is absent, ask parents to provide the reason for the student’s absence in order to determine if the student is a part of the outbreak and in need of further follow-up.

**Identify the Source**

The school and public health unit should work together to determine the source of the outbreak. The outbreak source is the person or item responsible for transmission of illness to others. It can be a:

- Single sick child
- Contaminated surface or product in the school
- Contaminated water supply
- Classroom pet

Occasionally, even with thorough investigation, the source might not be identified.

**Outbreak Control Measures**

1. **Increase Frequency of Handwashing** (see pages 9-11 for hand hygiene information)
   - Clean hands with liquid soap and warm water. Hands should be cleaned after using the washroom, sharing objects, shaking hands and before preparing and eating food. Ensure students are given the opportunity to wash their hands before eating.
   - If hand sanitizer stations are available, ensure they are stocked.

2. **Exclude ill Students and Staff** (see page 24 for quick reference for exclusion)
   - Ill students and staff should be sent home as soon as they become ill.
   - Those with respiratory symptoms should not return until they are well enough to take part in activities.
Those with diarrhea or vomiting should not return until at least 24 to 48 hours after symptoms have resolved.

3. Increase Frequency of Environmental Cleaning (see page 17 for enhanced environmental cleaning information)

- Ensure all commonly touched surfaces such as door knobs, stair rails, phones, desks, hand dryers etc, are cleaned and disinfected daily.
- Ensure washrooms are cleaned and disinfected daily and when soiled.
- Ensure washrooms are stocked with liquid soap, paper towels and toilet paper at all times.
- Ensure the disinfectant product used is capable of killing a wide spectrum of germs such as bleach or Accelerated Hydrogen Peroxide products especially when vomiting and diarrhea is circulating (see reverse for more information about cleaning).
- Follow the manufacturer’s directions and recommended contact time for the disinfectant.

4. Group Activities and Toys

- Discontinue any activity where groups of students touch a common item including play dough, sensory play materials (sand, macaroni, etc.,) and water play until the number of people ill is under control. Discard any recently used play dough and food based sensory items.
- Remove any soft toys (stuffed animals, cloth dolls) because they are difficult to clean compared to materials/surfaces that are smooth and non-absorbent.

**Declaring an Outbreak Over**

Generally, an outbreak will be declared over as follows:

- A respiratory outbreak will be declared over 8 days after symptom onset date of the last case.
- An enteric outbreak will be declared over 48 hours after symptom resolution of the last case.

**Key Point: Outbreak Resolution**

The criterion for declaring an outbreak over is determined by the incubation period and infectious period of the pathogen involved in the outbreak.
Chickenpox and Pregnancy

What are the symptoms of chickenpox?
- Mild fever and itchy rash of red spots all over the body which turn into fluid filled blisters and crust over.

What is the incubation period?
- After coming into contact with the virus, it usually takes 14 - 21 days before symptoms start.

How is it spread?
- Spreads person-to-person by breathing in air that has the virus in it, through direct contact with the fluid from a blister or the saliva of someone who has chickenpox, or through contact with surfaces and objects that have the virus on them and then touching your eyes, nose or mouth.

What should I do before I get pregnant?
- Talk to your health care provider about risk of getting sick with chickenpox.
- If you or your health care provider do not know if you’ve had chickenpox infection or vaccine in the past, a blood test should be done to see if you are immune.
- If you are at risk, you should get the chickenpox vaccine at least 1 month

What should I do if I am pregnant?
- If you’ve had chickenpox infection or vaccine in the past, you are not at risk of becoming sick with chickenpox.
- If you have not had chickenpox infection or vaccine in the past, you should stay away from anyone who is sick with chickenpox or shingles and get vaccinated as soon as possible after the baby is born.

What should I do if I’ve been around someone with chickenpox?
- If you are around someone with chickenpox or shingles and you are not sure if you are immune, you should talk to your health care provider right away.
- There is a treatment that may be given to pregnant women who are not immune or their immunity is unknown. The treatment must be started within 96 hours after contact with the virus.

Should I stay home from school or work?
- If you have chickenpox you do not need to stay home from work or school.
- If you’ve had chickenpox infection or vaccine in the past, you should be protected from infection and there is no concern about you being around someone who has chickenpox or shingles.
- If you have not had chickenpox infection or vaccine, you should stay away from anyone who is
Chickenpox Letter

Dear Parent/Guardian,

This letter is to notify you that a student at ______________________________ has recently been diagnosed with chickenpox. Elgin St. Thomas Public Health would like to provide you with information about this common childhood illness.

**What is chickenpox?**
Chickenpox is caused by the varicella-zoster virus. In children, this usually results in mild illness starting with a slight fever, fatigue, headache, and/or a runny nose. This is followed in a day or two by a red spotty rash which turns into small, itchy, fluid-filled blisters. Eventually the blisters dry up and crust over. The symptoms may be more severe in adults. Serious complications from chickenpox are rare but can include pneumonia (lung infection), encephalitis (inflammation of the brain), and bacterial infection of the skin.

**How does chickenpox spread?**
Chickenpox is most contagious 1-2 days before the rash appears and spreads mainly through respiratory droplets in the air and contact with fluid from the blisters of an infected person. It usually takes 10-21 days from the time you are around someone with the virus for symptoms to appear. Most adults have already had chickenpox infection and will not get sick again if re-exposed and many children in Elgin County are protected from chickenpox through childhood vaccinations.

**How to prevent chickenpox?**
Please ensure that your child is vaccinated against chickenpox as well as other vaccine preventable diseases. This helps to keep them and those around them safe. The vaccine is publicly-funded for anyone born on or after January 1, 2000. Parents who are not sure if their child has received two doses of the vaccine should talk to their health care provider. Parents who have not immunized their children may wish to reconsider.

**Who should get the chickenpox vaccine?**
The Canadian Pediatric Society recommends:

- Children should get 2 shots for chickenpox: the first when they are 12 to 15 months old and a second “booster” shot when they are 4 to 6 years old (before they start school).
- Children who have had chickenpox before one year of age may not stay immune and should receive the vaccine at the recommended times indicated above. People who have had chickenpox after 1 year of age do not need to get the vaccine. But if they do get the vaccine, it will not hurt them.
- Teens and adults up to age 50 who have not had chickenpox or the vaccine should get 2 shots, given at least 6 weeks apart.
• Women planning a pregnancy, who have not had chickenpox or the vaccine, should receive the 2 shots at least 4 weeks before getting pregnant

**Elgin St. Thomas Public Health offers hold immunization clinics in St. Thomas, Aylmer and Straffordville. To book an appointment, please visit: www.elginhealth.on.ca/booking or call 519-631-9900 ext. 1350

What should I do after being exposed to someone with chickenpox?
The following people should contact their doctor for follow-up if they are exposed to chickenpox:
• Women who are pregnant and have not had chickenpox infection or vaccine in the past;
• Children or adults who have an illness that suppresses their immune system (e.g. cancer, HIV);

Also:
• Watch your child for signs of chickenpox for 2-3 weeks after the exposure.
• A child with mild chickenpox infection can continue to attend school or daycare if they are feeling well enough to participate in activities as usual. A child with a high fever or enough spots to be uncomfortable, or who is feeling unwell, should stay home until feeling well enough to participate in activities as usual.
• If blisters become infected or your child is very ill, contact your health care provider.

If you have any questions or concerns, please contact Elgin St. Thomas Public Health at 519-631-9900 ext. 1232 or 1-800-922-0096 ext. 1232.
Fifth Disease and Pregnancy

What are the symptoms of fifth disease?

In children:
- A very red rash on the cheeks then 1-4 days later a lace-like rash on the body and arms, then over the rest of the body
- Rash may be itchy and may come and go for 1-3 weeks
- There may be a slight fever and mild cold symptoms before rash

In adults:
- Rash is less or there may be no rash
- May have fever
- May have joint pain which can last for weeks or months
- Many have no symptoms

How does fifth disease spread?
- Spreads person-to-person through contact with fluids from the nose or throat of someone who has fifth disease or through contact with surfaces and objects that have the virus on them and then touching your eyes, nose or mouth.
- **Important note:** Most adults are immune to fifth disease.

What should I do before I get pregnant?
- If you are not sure if you are immune to fifth disease, you should talk to your health care provider, especially if you work with babies or children. Your health care provider may order a blood test to see if you are immune.
- If you are not immune to fifth disease, the best way to prevent it is through good hand hygiene.
- There is no vaccine.

What should I do if I am pregnant?
- Clean your hands often.
- Clean and disinfect frequently touched items and surfaces.
- Do not share eating utensils with someone who has fifth disease.

What should I do if I’ve been around someone with fifth disease?
- Talk to your health care provider if you have been around someone with fifth disease.
- If you are not immune and become sick, there is a small risk of spreading infection to the fetus.
- If you are immune you will not get sick and the virus will not affect the baby.

Should I stay home from school or work?
- If you have fifth disease, you do not need to stay home from work or school as the infection spreads before the symptoms start.
- It is not recommended to exclude pregnant staff from their work or school when there is a case or an outbreak of fifth disease in that setting.
Fifth Disease Letter

Dear Parent/Guardian,

This letter is to notify you that a student at ___________________________ has recently been diagnosed with fifth disease. Elgin St. Thomas Public Health would like to provide you with information about this common childhood illness.

Fifth disease is caused by a virus by the name of parvovirus B19. In most children, adolescents, or adults, this infection does not cause serious illness. However, it can be a concern for pregnant women and people with blood disorders or problems with their immune system.

Symptoms of fifth disease can include very red cheeks and rash on the body. The rash can last for days to weeks, and can come and go. Children usually do not feel sick when they have the rash but may have a mild illness with fever and headache in the days before the onset of the rash. The rash can be mildly itchy. Adults may not develop a rash but may develop joint pain that lasts a few weeks.

Fifth disease is spread by close contact with the mouth and nose secretions of someone with the virus; Parvovirus B19 requires direct contact to spread. It does not spread through the air. Infected people spread the virus before the rash appears, but do not spread the virus after the rash develops. Children with the fifth disease rash can return to school and will not spread the infection to others. About half of all adults have had past parvovirus B19 infection and, therefore, will not develop the infection again.

Infection with parvovirus B19 may be a concern for pregnant women. There is a very small chance that infection of a pregnant woman can result in problems for the baby. Pregnant women who have had close contact with someone who developed this infection should consult their doctor. The doctor can do a blood test to see if the woman has protection from the virus. If no protection exists, the doctor may suggest further follow-up.

People with blood disorders or problems with their immune system that have had close contact with someone who developed this infection should also talk to their doctor.

Frequent hand washing, careful disposal of used facial tissues, not sharing eating utensils, and covering the nose and mouth while coughing and sneezing will prevent the spread of this infection.

Please do not hesitate to contact the Health Unit at (519) 631-9900 ext. 1232 if you have any questions about fifth disease.
Hand, Foot & Mouth Disease

What is hand, foot and mouth disease?
✓ Hand, foot and mouth disease is an infection caused by a virus called coxsackie virus. The infection can occur at any age, but it is most likely to affect young children. It usually occurs in the summer and fall.

What are the symptoms of hand, foot and mouth disease?
✓ Hand, foot and mouth disease is usually not a severe illness. It may cause:
✓ Fever
✓ Headache
✓ Sore throat
✓ Loss of appetite
✓ Lack of energy
✓ Small, painful ulcers in the mouth
✓ A skin rash. The skin rash consists of red spots, often topped by small blisters. It usually appears on the hands and feet but can affect other parts of the body as well.

How is hand, foot and mouth disease spread?
✓ Once a person is exposed to the virus it can take three to six days for symptoms to develop (incubation period). The virus is found in the saliva and stool of the infected person, during the time the person is ill. The virus also stays in the stool for several weeks after the symptoms are gone. The virus spreads from person to person through the air and by direct contact with nose and throat discharges or stool. Please note that this disease is not related to the virus that causes disease in animals.
✓ Things Parents Can Do:
✓ Watch your child for symptoms of hand, foot and mouth disease especially, if another child has it. If symptoms appear, contact your doctor because any rash should be diagnosed as soon as possible.
✓ Your child may continue attending school/daycare if he or she is feeling well enough to take part in the activities.

Remember, hand hygiene is important. Prevent the spread of infections by cleaning your hands after wiping your nose, a child’s nose, changing a diaper, using the toilet, or before preparing food.
**Influenza**

**What is influenza?**
- Influenza is an infection caused by a virus that affects the nose, throat and lungs.

**What are the symptoms of influenza?**
- Common symptoms of the flu include:
  - Fever
  - Chills
  - Cough
  - Runny nose
  - Stuffy nose
  - Sore throat
- Headache
- Muscle and body aches
- Weakness
- Fatigue (feeling more tired than usual)
- The flu may cause ear pain, vomiting, and diarrhea in children.

**How long after infection does it take for symptoms to appear?**
- It can take 1-4 days from the time you are exposed to the virus for symptoms to develop.

**How long do symptoms last?**
- Fever and other symptoms usually last 7-10 days. Cough and weakness may last 1-2 weeks longer.

**How is influenza spread?**
- The flu is spread from person-to-person through contact with the fluids from the nose, mouth, or throat of an infected person or from sharing items that have been in the infected person’s mouth such as cups and eating utensils. The flu is also spread from touching items and surfaces that have the germ on them and then touching your eyes, nose or mouth.
- An infected person can spread the influenza virus even before feeling sick. An adult can spread the virus from about 1 day before to 5 days after symptoms start. Young children may be able to spread the virus for a longer period of time.

**How can I prevent influenza?**
- Get the flu shot every year.
- Wash your hands with soap and water or use an alcohol-based hand sanitizer often.

**What should I do if I have symptoms of the flu?**
- Cover your coughs and sneezes and throw used tissue into the garbage followed by hand hygiene.
- Stay home if you are sick. Students and staff with symptoms of influenza should stay home until fever free for 24 hours and feeling well enough to take part in activities.
- Consult your health care provider if you develop flu-like symptoms and you have a condition that puts you at higher risk of complications such as lung or heart diseases or a weak immune system.
- You should also call your health care provider if your symptoms get worse, such as shortness of breath or difficulty breathing, chest pain, or signs of dehydration (such as dizziness when standing or low urine output).
**MRSA**

What is MRSA?
- MRSA is a type of staphylococcus (bacterium) that is resistant to many antibiotics.

What are the symptoms?
- MRSA can cause wound infections, pimples, boils, and sometimes blood infections and pneumonia.
- People can carry MRSA and not show any symptoms, this is called colonization.

How is MRSA spread?
- Touching someone’s MRSA infected skin
- Touching surfaces that have MRSA on them, like doorknobs, light switches and keyboards
- Sharing sports equipment
- Sharing personal hygiene items such as bar soap, towels
- Not having the resources to keep clean
- Overusing antibiotics, also stopping them early, or missing doses

How can I prevent MRSA?
- Clean your hands often.
- Avoid activities such as contact sports that involve skin-to-skin contact until the infection is treated and healed.
- Clean and disinfect anything that has come into contact with the drainage from an infected person’s wound. Dispose of materials and items that cannot be cleaned and disinfected.
- Avoid sharing towels and clothing.
- Launder linens and clothing in hot water and dry with heat.

What should I do if I have symptoms of MRSA?
- You should see your healthcare provider. Your health care provider may:
  - Drain the infection and/or
  - Give an antibiotic and/or
  - Help reduce the amount of bacteria on the skin.
Norovirus

What is norovirus?
✓ Noroviruses are a group of viruses that cause acute gastrointestinal illness
✓ Noroviruses were previously known as Norwalk virus, Norwalk-like virus and Calicivirus

What are the symptoms of norovirus?
✓ Symptoms often include any combination of:
  o Nausea
  o Vomiting
  o Stomach cramps
  o Diarrhea
✓ In general, children experience more vomiting than adults do.
✓ Severe illness and hospitalization is uncommon.

How long after infection does it take for symptoms to appear?
✓ It can take 1-2 days from the time you are exposed to the virus for symptoms to develop.

How long do symptoms last?
✓ Symptoms usually last 12 to 60 hours.
✓ Infected people usually recover in 2 to 3 days without serious or long-term health effects.

How does norovirus spread?
✓ Noroviruses are found in the stool or vomit of infected people. People can become infected with the virus in several ways:
  ✓ Direct contact with another person who is infected and showing symptoms (e.g. caring for an ill family member, sharing foods or eating utensils)
  ✓ Touching surfaces or objects contaminated with Norovirus, and then placing contaminated hands to mouth.
  ✓ Eating food prepared by an infected person who has not washed their hands.
  ✓ Eating food that might be fecally contaminated with Norovirus before harvesting (e.g. shellfish harvested from fecally contaminated water).
  ✓ Drinking liquids that are contaminated with Norovirus (e.g. drinking water or ice cubes coming from a contaminated water source).
  ✓ Infected people can spread the infection from the time symptoms start and for up to two days after the symptoms (usually diarrhea) stop but people can carry the virus for up to two weeks longer.

What should I do to prevent the spread of Norovirus infection?
✓ Clean your hands often. Washing hands is especially important after using the washroom, changing diapers and before, during and after preparing food.
✓ Carefully wash fruits and vegetables, and steam oysters before eating them.
✓ DO NOT PREPARE FOOD for others if you are ill with diarrhea or vomiting for at least 48 to 72 hours after your symptoms have stopped.
✓ Dispose of feces, vomit and contaminated material, such as sheets and towels carefully, with as little agitation as possible. WASH HANDS thoroughly after handling soiled items such as laundry and diapers.
✓ Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap).
✓ Flush or discard any vomit or stool in the toilet and make sure the surrounding area is kept clean.
✓ Clean and sanitize washrooms and surfaces such as countertops and doorknobs at least once daily or as needed using an appropriate product according to the manufacturer’s instructions or by using a bleach/water solution of 1 tsp. household bleach in 2 cups of water.

What should I do if I think I might be infected with norovirus?
✓ See your health care provider.

How is norovirus diagnosed?
✓ Diagnosis is often based on the combination of symptoms and the length of illness.
✓ The symptoms of norovirus infection are similar to other gastrointestinal illnesses, so laboratory testing is the only way to obtain a definitive diagnosis.

How is norovirus treated?
✓ No specific treatment is available.
✓ Fluid replacement is important to prevent dehydration. Dehydration is usually seen among the very young, the elderly and persons with weakened immune systems.
**Pinworm**

What is pinworm?
- A pinworm, also known as a “threadworm”, is a small thin white worm that sometimes lives in the colon (bowel) and rectum (bottom or bum) of humans.
- Pinworms are small but visible to the naked eye, about the length of a staple.
- Female worms crawl out of the rectum at night and lay their eggs on the surrounding skin.
- Pinworms are unpleasant and uncomfortable but they do not cause disease.

What are the symptoms of pinworm infection?
- The most common symptom is itching around the anus (opening of the bum) and vagina.
- In severe cases, the itching can lead to difficulty sleeping, restlessness, grinding of teeth at night, loss of appetite and anxiety.
- Many people do not have any symptoms.

Who is at risk for pinworm infection?
- Pinworm infection occurs worldwide and affects people of all ages.
- Pinworm infection occurs most commonly among:
  - School-aged and preschool-aged children,
  - Institutionalized people, and
  - Household members and caretakers of people with pinworm infection.

How does pinworm infection spread?
- When an infected person scratches the itchy area and gets the pinworm eggs on their fingers or under their fingernails and touches another person’s mouth.
- When the eggs get onto objects, such as toys, toilet seats, bathtubs, clothes or bedding. By sharing these objects, other people can pick up the eggs on their hands and then put them in their mouth.
- Pinworm eggs become infective within a few hours after falling off the skin and can survive for up to 3 weeks on clothing, bedding, or other objects.

What can I do to prevent pinworm infection?
To help prevent the spread of pinworm:
- Wash your hands with soap and warm water after using the toilet, changing diapers and before handling food.
- Teach children the importance of washing hands to prevent infection.
- Decrease the number of eggs on your skin by bathing in the morning. This makes you less infective.
- Change underclothes and bedding in the morning to prevent spreading the eggs in the environment. Eggs remain infective in the environment for 2-3 weeks. Do not shake out these items and place carefully in the washer and dryer to kill any eggs that may be there.
Cut fingernails frequently and try not to bite your nails.
In institutions, day care centres, and schools, control of pinworm can be difficult, but mass use of medication during an outbreak can be successful.

What should I do if I think I might be infected with pinworms?
- Talk to your health care provider if you think you or a family member might have a pinworm infection.

How is pinworm diagnosed?
- Diagnosis is usually made when adult worms are seen in the area around the bum. It is best to check the area with a flashlight 2-3 hours after the child is asleep.
- Transparent tape can be applied to the skin around the bum to collect any eggs that may be present. The tape can then be placed in a baggie or sealed container and taken to the health care provider. The tape will be examined under a microscope for the presence of eggs. Three samples, collected first thing in the morning, for three days in a row are recommended.
- Very few eggs are present in stool so stool samples are not recommended.

How is pinworm treated?
- For information about treating pinworm infection, speak with your health care provider.
# Appendix B – Chickenpox Report Form

## Chickenpox Report Form

- **Reported Date:**
- **Reported By:** □ School □ Daycare Centre □ Physician Office □ Other: ____________
- **Facility Name:** ____________
- **Facility Address:** ____________
- **Facility Phone #:** ____________ **Facility Fax #:** ____________
- **Reporting Person Name:** ____________

---

**TO REPORT A CLUSTER, call Elgin St. Thomas Public Health at 519-631-9900 ext. 1232**

Do not use this form.

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<thead>
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<th>Case Initials</th>
<th>Date of Birth</th>
<th>Symptom Onset Date</th>
<th>Status</th>
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**Fax Completed Form to 519-631-1682, Attn: Communicable Diseases Team**

The information on this form is collected by law under the Health Protection and Promotion Act and Personal Health Information Protection Act. The information may be used for delivery of public health programs and services, evaluation or research purposes. Any questions about the collection of this information should be directed to: ESTPH Privacy Officer, Elgin St. Thomas Public Health 1230 Talbot Street, St. Thomas, ON N5P 1G9, (519) 631-9900; Fax: (519) 633-0488; E-mail: estphp@elginhealth.on.ca

May 2016
## Appendix C – Sample Outbreak Line List

<table>
<thead>
<tr>
<th>Child’s name &amp; date of birth</th>
<th>Child’s class/grade</th>
<th>When did the symptoms start? (list dates)</th>
<th>What are the symptoms? (please list)</th>
<th>What date did the child last attend school?</th>
<th>Actions/Notes (i.e. events attended by student/underlying conditions etc.)</th>
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**Date Line List Started:**

**Date Reported to Public Health:**

**Signature:**
Appendix D – Sample Outbreak Control Measures Checklist

### Surveillance

<table>
<thead>
<tr>
<th>Date Started</th>
<th>Monitor and track cases daily using outbreak line list</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provide daily updates to the school health nurse or communicable disease team at 519-631-9900</td>
</tr>
</tbody>
</table>

### Hand Hygiene

<table>
<thead>
<tr>
<th>Date Started</th>
<th>Students and staff should clean hands with liquid soap and warm water often - after using the washroom/sharing objects/shaking hands/before preparing and eating food etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ensure hand hygiene supplies are stocked - soap, paper towels, hand sanitizer</td>
</tr>
</tbody>
</table>

### Exclusion

<table>
<thead>
<tr>
<th>Date Started</th>
<th>Ill students and staff should be sent home as soon as soon as they become ill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Those with respiratory symptoms should not return until they are well enough to take part in activities</td>
</tr>
<tr>
<td></td>
<td>Those with diarrhea or vomiting should not return until 48 hours after symptoms have resolved</td>
</tr>
</tbody>
</table>

### Environmental Cleaning

<table>
<thead>
<tr>
<th>Date Started</th>
<th>Ensure all commonly touched surfaces such as door knobs, stair rails, phones, desks, hand dryers etc, are cleaned and disinfected daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ensure washrooms are cleaned and disinfected daily and when soiled</td>
</tr>
<tr>
<td></td>
<td>Ensure washrooms are stocked with liquid soap, paper towels and toilet paper at all times</td>
</tr>
<tr>
<td></td>
<td>Ensure the disinfectant product used is capable of killing a wide spectrum of germs such as bleach or Accelerated Hydrogen Peroxide products especially when vomiting and diarrhea is circulating (see reverse for more information about cleaning)</td>
</tr>
<tr>
<td></td>
<td>Follow the manufacturer’s directions and recommended contact time for the disinfectant</td>
</tr>
</tbody>
</table>

### Group Activities and Toys

<table>
<thead>
<tr>
<th>Date Started</th>
<th>Discontinue any activity where groups of students touch a common item including play dough, sensory play materials (sand, macaroni, etc..) and water play until the number of people ill is under control. Discard any recently used play dough and food based sensory items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Remove any soft toys (stuffed animals, cloth dolls) because they are difficult to clean compared to materials/surfaces that are smooth and non-absorbent</td>
</tr>
</tbody>
</table>

### Other

| Date Started | |
|--------------||
|              ||
|              ||
Notes

References


