2025 Edition

Communicable Disease Reference Guide for Schools

Indiana Department of Health

Infectious Disease Epidemiology & Prevention Division

Communicable Disease Reference Guide for Schools: 2025 Edition

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Indiana Department of Health

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For more information regarding any of the diseases and/or conditions covered in the manual, please contact:

IDOH Infectious Disease Epidemiology Prevention Division (IDEPD)
317-233-7125

Comments, questions and suggestions regarding this manual are welcome.

Approved by: Eric Hawkins

Eric Hawkins
State Epidemiologist

Date: **December 2025**

Indiana Department of Health

Mike Braun
Governor

Lindsay M. Weaver, MD, FACEP
State Health Commissioner

December 1, 2025

Dear School Nurses and Administrators:

More than 20 years ago, the Indiana Department of Health (IDOH) partnered with the Indiana Department of Education (IDOE) to develop a comprehensive infectious disease school health reference guide. Over the years, we have reviewed and edited this guide to ensure communicable disease information is made available in an easy-to-understand format to schools across the state. The 2025 edition provides the most current information on infectious diseases likely to be found in school settings, as well as guidance on communicating disease information to students, parents and staff. This guide identifies situations and helpful information for occurrences when infected or exposed students or staff should be excluded from school-based activities.

The *Communicable Disease Reference Guide for Schools: 2025 Edition* is available online on both the IDOH and IDOE websites. The Reference Guide is organized into sections to provide easier access to relevant information, including a large section devoted to the diseases and conditions most frequently encountered in a school setting. Each disease and condition, along with other helpful resources and information, is included in the Guide and can be printed as a single document or separately. The appendices, particularly Appendix A, provide information and recommendations to inform and support school nurses and officials in preparing for and managing an outbreak in a school setting.

For additional information regarding communicable diseases, conditions or other health issues encountered in the school setting, please contact the IDOE student health services specialist at 317-232-0541 or the IDOH chief nurse consultant at 317-233-7588. Additional assistance with school-based health issues may also be obtained by contacting your local health department.

We hope that school nurses, staff and administrators will find this reference guide to be a valuable resource, providing information and guidance for effective infection control, disease prevention and management practices.

Sincerely,

Eric Hawkins
State Epidemiologist

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Reference Guide Overview

PURPOSE

The health of Indiana's children is the foundation for educational success. Controlling the spread of communicable disease in the community is the legal responsibility of the Indiana Department of Health (IDOH) and local health departments (LHDs); however, public health officials rely on the cooperation and contribution of schools, healthcare providers and parents to prevent the spread of disease.

The purpose of the *Communicable Disease Reference Guide for Schools: 2025 Edition* is to deliver the best available health information to assist those providing healthcare in schools in their efforts to prevent the introduction of communicable disease and reduce its spread in the school environment. The reference guide was written using the most current information from reliable public health and medical sources, but it is not intended to serve as a policy and procedure manual and should not be used as a substitute for the timely evaluation of suspected infections by a healthcare provider. Children and staff who may be ill should always be referred for medical evaluation.

This document is intended to guide the development of specific local policies and procedures for the management of communicable diseases in schools. These policies and procedures should be implemented in collaboration with local health departments and school health services programs. The procedures and recommendations described in the guide should be followed to the extent that they do not conflict with Indiana law or rule.

ORGANIZATION AND USE OF THE MANUAL

The manual is divided into four sections:

I. DISEASES AND CONDITIONS

This section contains information on specific disease conditions that the school nurse may encounter. Each disease or condition includes information pertaining to its clinical description; the incubation period, mode of transmission and period of communicability; exclusion and reporting requirements or recommendations; recommendations for prevention and/or care of the disease or condition; and information and recommendations of steps to be taken should an outbreak occur in a school setting. Links to reliable resources from the Indiana Department of Health and other outside agencies and organizations are also found on each disease and condition page.

Those diseases that are required by Indiana law (Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories, 410 IAC 1-2.5) to be reported to public health officials are denoted by a red stop sign on the corresponding disease or condition page. This is also noted in the Communicable Disease Summary Table. Physicians, hospitals and laboratories that notify a reportable condition through the provision of services to a patient are required to report those results to the LHD and the IDOH. Although schools are not legally required to report diseases or conditions, it is recommended that school officials report a reportable disease or condition to the LHD as soon as possible. Occasionally, a school's report to the LHD will be the first notification of a reportable illness.

II. COMMUNICABLE DISEASE SUMMARY TABLE

The "Communicable Disease Summary Table" concisely describes, in a tabular format, the information that is contained in the individual disease or condition pages. Where the summary chart indicates it is not necessary to inform the LHD about a disease or condition occurring in a student, this does not prohibit you from contacting the LHD for consultation and recommendations.

III. RASH ILLNESSES: DESCRIPTION AND INFORMATION TABLE

The "Rash Illnesses: Description and Information Table" provides, in tabular format, a summary description of common illnesses that are accompanied by rashes. Additional information for each illness, including a description of the rash, other symptoms that will accompany the illness, the causative agent and period of communicability and information related to school attendance and exclusion is also found in the table.

IV. APPENDICES

Appendix A: Managing an Infectious Disease Outbreak in a School Setting
Appendix B: Indiana Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories (410 IAC 1-2.5) at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf
Appendix C: Resources
Appendix D: Reporting of Excessive Absenteeism (20% Absenteeism Law)
Appendix E: Live Animals in Schools

NOTE: Visit https://phil.cdc.gov/ for pictures of any disease listed from the Centers for Disease Control and Prevention (CDC).

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HEPATITIS B INFECTION

(Acute and Chronic)*

R

CLINICAL DESCRIPTION:

Hepatitis B is a serious disease of the liver that results from infection with the hepatitis B virus. Hepatitis B can occur with or without symptoms. Symptoms can include malaise, anorexia, fever, nausea, right upper quadrant abdominal pain, myalgia, jaundice (yellowing of the skin or eyes), and light-colored stools. Children younger than 5 years and infants are typically asymptomatic. Most adults with HBV infection will recover and do not become chronically infected. However, 90% of infants and 30% of children between the ages 1 to 5 with HBV infection will develop chronic hepatitis B, or long-term hepatitis B infection. Chronic hepatitis B infection, over time and if untreated, can increase the risk of liver cirrhosis, liver cancer, liver failure, and even death.

INCUBATION PERIOD:

The incubation period is usually 45 to 180 days with an average of 60 to 90 days after exposure.

MODE OF TRANSMISSION:

Hepatitis B is transmitted when blood or other body fluids, such as semen and vaginal secretions, from an infected person come into direct contact with a susceptible person's mucous membranes or broken skin or through contact with a contaminated sharp object. Infection may also be transmitted from mother to baby at birth and through bites that result in broken skin. Hepatitis B cannot be transmitted casually; it is not spread through the sharing of toys, sneezing, coughing, spitting or hugging.

PERIOD OF COMMUNICABILITY:

People living with chronic hepatitis B may be carriers and can spread the virus if the infection has not resolved. An indication of communicability is the presence of hepatitis B surface antigen (HBsAg) in a person's blood. A person can spread hepatitis B for one to two months before the onset of symptoms.

EXCLUSION/REPORTING:

Children living with hepatitis B should be receiving care from a provider to help monitor the health of their liver. Under Indiana law (IC 16-41-9-3), children may not be excluded from school activities solely based on their hepatitis B status. However, depending on the severity of the symptoms that may exist, adjustments to typical classroom and school-related activities, as well as attendance, may be necessary for the student's comfort and success. For other information on laws and rules regarding hepatitis B infection, see Rule 410 IAC 1-2.5-75 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- A safe and effective vaccine is available to prevent hepatitis B infection. More than 90% of infants, children, adolescents, and adults younger than age 40 will develop a protective immune response after completing a hepatitis B vaccine series. When the immunization series is administered successfully, studies indicate that immunologic memory remains intact for more than 30 years and confers protection against future hepatitis B infections.

    - School immunization requirements for hepatitis B can be found on the IDOH School Resources webpage at https://www.in.gov/health/audiences/school-representatives/school-administrators-and-nurses/#School_Immunization_Requirements.
- Recommend hepatitis A vaccination for people living with hepatitis B to further protect their liver from potential co-infections
- Don't share syringes, needles, lancets, razors, toothbrushes or other items contaminated with blood. Avoid getting tattoos from non-licensed facilities.
- Equipment contaminated with blood or other potentially infectious body fluids (or both) should be appropriately disinfected or sterilized prior to reuse (see Infectious Waste Rule 410 IAC 1-3). Universal precautions to prevent exposure to blood and body fluids should be practiced (see Universal Precautions Rule 410 IAC 1-2.5-74).
- Hepatitis B infection can pose a serious risk to an infant at birth. Perinatal HBV transmission may be prevented by identifying women who are living with HBV, or are HBsAg positive, and providing hepatitis B immune globulin and hepatitis B vaccine to their infants within 12 hours of birth. For additional information, see Clinical Overview of Perinatal Hepatitis B | Hepatitis B | CDC and Hepatitis B - FAQs, Statistics, Data, & Guidelines | CDC.
- Not everyone living with hepatitis B needs to be treated. However, it is important to be seen by a liver specialist or health care provider to assess if treatment is needed and to have regular follow-up care.

OUTBREAKS:

According to the IDOH Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of hepatitis B if the number of exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

* Hepatitis B infections are **required** to be reported under the Communicable Disease Reporting Rule.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - Hepatitis B
    - Pink Book | Chapter 10: Hepatitis B
- Hepatitis B Foundation:
    - Hepatitis B Foundation
- University of Washington:
    - Hepatitis B Online Lessons
- American Association for the Study of Liver Diseases (AASLD):
    - Practice Guidelines for Hepatitis B

HEPATITIS C INFECTION

(Acute and Chronic)*

CLINICAL DESCRIPTION:

Hepatitis C is a serious disease of the liver that results from infection with the hepatitis C virus. Clinical symptoms can include vomiting, nausea, unexpected weight loss, dark urine, pale stool, fatigue, abdominal pain and jaundice. However, many people with acute or chronic hepatitis C do not have any symptoms. If symptoms are present, they are usually mild or vague. More than half of people who become infected with hepatitis C may develop a chronic infection. Chronic hepatitis C infection can last a lifetime with no visible symptoms and, if not treated or cleared, can increase the risk of liver damage, scarring of the liver, liver cancer and even death.

INCUBATION PERIOD:

The incubation period ranges from two weeks to six months, most commonly about six to nine weeks. Hepatitis C infection may be resolved without treatment in a small percentage of cases, usually within six months. Persistent infection of longer than six months results in chronic hepatitis C.

MODE OF TRANSMISSION:

Hepatitis C is transmitted when blood from an infected person comes in direct contact with a susceptible person's blood or broken skin or through contact with a contaminated sharp object. It may also be transmitted through the sharing of razors, toothbrushes and contaminated needles. The risk of transmission through sexual contact, while possible, is very low.

PERIOD OF COMMUNICABILITY:

People living with hepatitis C infections may be carriers of the virus and can spread the virus if the infection has not cleared or if treatment was not successful. An indication of communicability is the presence of hepatitis C RNA (HCV RNA) in a person's blood. A person living with hepatitis C can spread the virus for one or more weeks before the onset of symptoms.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for hepatitis C. For other information on laws and rules regarding hepatitis C, see Rule 410 IAC 1-2.5-75 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- There is no vaccine to prevent hepatitis C. It is recommended that people living with hepatitis C receive the hepatitis A and hepatitis B vaccines to further protect their liver from potential co-infections.
- Don't share syringes, needles, lancets, razors, toothbrushes or other items contaminated with blood. Avoid getting tattoos from non-licensed facilities.
- Equipment contaminated with blood shall be appropriately disinfected or sterilized prior to reuse (see Infectious Waste Rule 410 IAC 1-3). Universal precautions to prevent exposure to blood and body fluids should be practiced (see Universal Precautions Rule 410 IAC 1-2.5-74). Treatment for HCV infection is recommended for children as young as 3 years.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of hepatitis C if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

* Hepatitis C infections are **required** to be reported under the Communicable Disease Reporting Rule.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Hepatitis C Basics
  - Clinical Overview
- Indiana Department of Health (IDOH):
  - Hepatitis C Fact Sheet
- American Liver Foundation:
  - American Liver Foundation
- American Association for the Study of Liver Diseases:
  - Practice Guidelines for Hepatitis C
- University of Washington
  - Hepatitis C Online Modules

HIV/AIDS

CLINICAL DESCRIPTION:

Infection occurs when an individual acquires the human immunodeficiency virus (HIV). Within weeks of the initial infection, people may experience several days of clinical symptoms suggestive of a viral illness. Symptoms may include fever, rash, myalgia, neuralgia, headaches and gastrointestinal disturbances. After this initial response, people usually become asymptomatic, although suppression of the immune system is occurring. Opportunistic infections occur when immune suppression becomes severe. The final stage of HIV infection is known as acquired immunodeficiency syndrome (AIDS) and is characterized by development of infections or conditions associated with immune suppression.

INCUBATION PERIOD:

The incubation period is variable, from one week to 10 years or longer. HIV antibodies may not be detectable for three to six months after exposure, depending on the sensitivity of the antibody test. However, in most people they are detectable within two to eight weeks. In most instances, the virus itself begins replicating upon entering the host and can be detected with an RNA test within 9 to 11 days after exposure. The antibody test is the routine test for HIV.

MODE OF TRANSMISSION:

In a nonmedical setting, HIV is transmitted from an infected person to another by exposure to bodily fluids: blood, semen, vaginal secretions, rectal fluids and breast milk. HIV may be passed from one person to another when infected fluids come in contact with an uninfected person's broken skin or mucous membranes in enough quantity to allow for the replication of the virus. There are three major ways of contracting HIV: (1) unprotected sexual encounters; (2) sharing needles or syringes; (3) mother-to-child transmission during pregnancy, labor and delivery, or breastfeeding.

PERIOD OF COMMUNICABILITY:

A person can spread HIV to others before it is detectable with commonly used antibody tests, and anyone infected with HIV remains a lifelong carrier of the virus. HIV-infected pregnant and new mothers should consult a healthcare provider. Prenatal treatment of pregnant women and post-partum treatment of their infants reduces transmission of HIV from mother to the baby.

EXCLUSION/REPORTING:

According to IC 16-41-9-3, children must not be excluded from school activities based on their HIV status. HIV is not reportable to or by school systems. All confidentiality requirements found in IC 1641-8 must be followed: https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

Provide comprehensive, fact-based education to prevent HIV infection in children.
Equipment contaminated with blood or other potentially infectious body fluids (or both) must be appropriately disinfected or sterilized prior to reuse (see Infectious Waste Rule 410 IAC 1-3). Universal precautions should always be practiced to prevent exposure to blood and body fluids.

Dispense medications to infected students discreetly and in accordance with the exact directions regarding time of day to be taken, dosage and other specifications, such as whether they must be taken on an empty stomach or with food.

Children infected with HIV are more likely to have complications from diseases that are preventable by routine vaccination. HIV infection is not a contraindication to vaccination unless the child has developed AIDS. Live viral vaccines such as MMR or varicella may be contraindicated in children with AIDS. Make sure students infected with HIV receive all recommended vaccinations. If you are uncertain about whether a child with HIV should receive a vaccine, please contact the child's infectious disease doctor.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means **cases of disease occurring in a community, region or particular population at a rate higher than that which is** normally expected. The local health department should be notified of suspected and/or documented cases of HIV/AIDS if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for, and the management of, an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Center for Disease Control and Prevention (CDC):
  - About HIV
- Indiana Department of Health (IDOH):
  - HIV/STI/Viral Hepatitis

CONJUNCTIVITIS

(Pink Eye)

CLINICAL DESCRIPTION:

Conjunctivitis, or pink eye, is an acute condition characterized by redness of the eye(s). Other symptoms can include tearing, irritation and photophobia, purulent discharge and crusting of eyelids or lashes in the morning. Conjunctivitis is a physiological condition that can be caused by variety of factors, including viral and bacterial infections, foreign bodies or allergies.

INCUBATION PERIOD:

For bacterial conjunctivitis, the incubation period ranges from 24 to 72 hours. For viral conjunctivitis, it is usually 12 hours to three days.

MODE OF TRANSMISSION:

Certain root causes of conjunctivitis, such as viral or bacterial infection, can be transmitted to others via contact such as:

- Touching an object with germs and then touching your eyes prior to washing your hands
- Having close personal contact with an infected person such as touching or shaking their hands
- Being exposed to the upper respiratory tract's fluid belonging to an infected person through sneezing or coughing

PERIOD OF COMMUNICABILITY:

A person can spread conjunctivitis during active infection. Depending on the cause of the infection, communicability may persist up to 14 days after onset.

EXCLUSION/REPORTING:

The American Academy of Pediatrics advises that children with purulent conjunctivitis (defined as pink or red conjunctiva with white or yellow discharge, often with matted eyelids after sleep and eye pain or redness of the eyelids or skin surrounding the eyes) be excluded until examined by a healthcare provider and approved for readmission. With bacterial conjunctivitis, healthcare providers recommend exclusion until 24 hours after starting topical antibiotic therapy.

PREVENTION/CARE:

- Use of hot or cold moist packs may relieve discomfort
    - Encourage frequent handwashing and prompt disposal of used tissues; encourage infected persons NOT to touch their face and to launder bed linens and towels
    - Clean contact lenses properly and regularly
- Refer for medical evaluation

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of conjunctivitis if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for, and the management of, an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Pink Eye (Conjunctivitis)
- Mayo Clinic:
  - Pink Eye Overview and Photo

FIFTH DISEASE

(Erythema Infectiosum)

CLINICAL DESCRIPTION:

Fifth disease, also known as Erythema Infectiosum, is usually a mild illness caused by the human parvovirus (B19). The infection is most common in school-aged children, and clusters of cases can occur in schools, usually in late winter and spring. The clinical presentation most often associated with fifth disease is a red rash on the face, also called a "slapped cheek" rash. This rash typically appears a few days after a fever or flu-like symptoms. It is more common in children than adults. Fifth Disease can also cause a generalized rash on the chest, back, buttocks, or arms and legs. The rash may be itchy and usually goes away in 7 to 10 days but can come and go for several weeks. As the rash starts to go away, it may look lacy. Other symptoms can include fever, headache, cough, sore throat, and joint pain.

Parvovirus can also cause other conditions. In people with certain red blood cell abnormalities, such as sickle cell disease, this infection can cause a serious shutdown of red blood cell production, called an aplastic crisis. Infection with the virus can also cause chronic anemia in immunosuppressed people or arthralgia or arthritis in susceptible adults. Parvovirus infection during early pregnancy may spread the virus to a developing baby. Infection during the first half of pregnancy may lead to severe anemia in a developing baby and it may result in miscarriage in some cases. Pregnant women should be notified of an exposure to the infection.

INCUBATION PERIOD:

The incubation period is normally from four to 14 days but can be as long as 21 days.

MODE OF TRANSMISSION:

Transmission occurs through contact with infectious respiratory secretions, exposure to blood or blood products and from an infected mother to her fetus; however, droplet contact and close person-to-person contact are the most common modes of transmission.

PERIOD OF COMMUNICABILITY:

People with fifth disease are most contagious when they have a fever or cold-like symptoms before the rash appears. When the rash appears, a person can no longer spread the virus to others.

EXCLUSION/REPORTING:

Children with fifth disease are most contagious before the onset of illness; once the rash appears, they are usually no longer contagious.

PREVENTION/CARE:

- Inform high-risk people within the school when a case of fifth disease has been identified. High-risk individuals include persons with chronic hemolytic anemia, congenital or acquired immunodeficiency disease, and pregnant women. Pregnant women should consult with their healthcare provider if exposed to a case of fifth disease. Serologic testing for parvovirus B19 can determine a pregnant woman's susceptibility to the virus.
- Encourage frequent handwashing, covering coughs and sneezes, and prompt disposal of used tissues.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region, or population at a rate exceeding what is normally expected. The local health department should be notified of suspected and/or documented cases of fifth disease if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Parvovirus B19 and Fifth Disease
  - Parvovirus B19 in Pregnancy
- Indiana Department of Health (IDOH):
  - Fifth Disease

HAND, FOOT AND MOUTH DISEASE (HFMD)

(Vesicular Stomatitis with Exanthem)

CLINICAL DESCRIPTION:

HFMD is a mild illness caused by enteroviruses (most commonly coxsackievirus A16 and enterovirus 71) that primarily affects children under 5 years of age. Cases may also occur in older adolescents and adults. HFMD is characterized by symptoms that can include sudden-onset fever, malaise, poor appetite and sore throat followed by lesions in the mouth one to two days later. The lesions begin as small red spots that blister and may become ulcers. They are usually located on the tongue, gums and inside of the cheeks and can be very painful. A skin rash then develops, usually located on the palms of the hands and soles of the feet. The sores

may also appear on the buttocks, legs, and arms. Most people get better on their own in 7 to 10 days. Serious conditions can result from enteroviruses infections, including viral meningitis and encephalitis.

INCUBATION PERIOD:

The incubation period is usually three to five days.

MODE OF TRANSMISSION:

Transmission is through direct contact with discharges from the nose and throat and through the fecal-oral route.

PERIOD OF COMMUNICABILITY:

A person can spread HFMD during the acute stage of illness and may be able to spread the virus for several weeks after symptoms resolve. Generally, people with HFMD are most contagious during the first week of illness.

EXCLUSION/REPORTING:

There are no specific requirements regarding the exclusion of children with HFMD from school. However, CDC recommends that individuals with HFMD stay home while ill. Children are often excluded from group settings during the first few days of illness while they are most contagious. Exclusion during the first few days of illness may reduce spread but will not completely interrupt it. Excluding ill people does not prevent additional cases since the virus can be excreted for weeks after the symptoms disappear. Also, some people excreting the virus, including most adults, may have no symptoms. Some benefit may be gained by excluding children who have blisters in their mouths and drooling or who have weeping lesions on their hands. Additionally, children who are febrile or do not feel well enough to participate in classroom activities should stay home.

PREVENTION/CARE:

There is no specific treatment or vaccine for HFMD. To prevent additional cases of HFMD:

- Wash and sanitize or discard articles soiled by discharge
- Encourage frequent handwashing, especially after handling discharges and after using the restroom
- Encourage good cough and sneeze hygiene

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of HFMD if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - Hand, Foot, and Mouth Disease
- Indiana Department of Health (IDOH):

    - Hand, Foot, and Mouth Disease
- Photographs of disease/condition:
    - HFMD Symptoms and Complications

IMPETIGO

CLINICAL DESCRIPTION:

Impetigo is a skin eruption caused by either group A streptococcal or staphylococcal bacteria that may progress through vesicular, pustular and encrusted stages. Impetigo is characterized by red bumps, usually on the face (particularly around the nose and mouth) or extremities. The red bumps fill with pus, break open and form a honey-colored crust. The lesions are usually itchy but not painful. The rash typically lasts two to three weeks. Incidence is most common during the summer in children aged 2-5 years old.

INCUBATION PERIOD:

The incubation period varies. For impetigo caused by group A strep, sores usually appear about 10 days after exposure.

MODE OF TRANSMISSION:

Infection is spread by direct contact with secretions from lesions.

PERIOD OF COMMUNICABILITY:

An untreated person can spread the bacteria as long as drainage from lesions continues. Infected individuals can no longer transmit the infection within 24 hours of initiating antibiotic therapy.

EXCLUSION/REPORTING:

Parents should be advised to keep contagious children at home until 24 hours after starting topical or oral antibiotic therapy. Children who have not been exposed
Contacts of cases do not need to be excluded.

PREVENTION/CARE:

Encourage frequent handwashing. Educate students to avoid scratching and touching the infected area then touching another area of the body.

- Wear disposable gloves while applying any treatments to infected skin
- Draining lesions should be always covered with a dressing
- Call the caregiver of child
- Watch for additional cases

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of Impetigo if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for

and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Impetigo
- Indiana Department of Health (IDOH):
  - Impetigo

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

(MRSA)

CLINICAL DESCRIPTION:

Staphylococcus aureus (staph) bacteria commonly reside on the skin or in the nose of healthy individuals and do not cause infection. When bacteria enter the body through a break in the skin barrier, it can cause mild skin infections, such as pimples, abscesses, rashes or boils. Staph can also cause serious infections, such as sepsis and osteomyelitis or pneumonia. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a type of staph bacteria that is resistant to the antibiotic methicillin and other antibiotics related to penicillin.

INCUBATION PERIOD:

The incubation period is variable and indefinite.

MODE OF TRANSMISSION:

MRSA is spread by direct physical contact with an infected person, or by direct skin contact or indirect contact with an inanimate object (such as towels, clothes, bandages or sports equipment) that is soiled with wound drainage. The bacteria are not carried through the air and are not found in dirt or mud.

PERIOD OF COMMUNICABILITY:

A person can spread MRSA if an open wound is not properly covered.

EXCLUSION/REPORTING:

There are no specific exclusion provisions found in Indiana communicable disease laws or rules for MRSA. Students should not be excluded from attending school unless directed by a healthcare provider, if wound drainage cannot be covered and contained with a dry bandage, or if good personal hygiene cannot be demonstrated.

PREVENTION/CARE:

MRSA can be prevented by encouraging students and educators to follow these precautions:

- Encourage frequent handwashing
- Keep infected areas covered with a clean, dry bandage
- Avoid direct contact with another person's wound, drainage or bandages
- Avoid contact with surfaces contaminated with wound drainage

- Do not share personal hygiene items, such as washcloths, towels, razors, toothbrushes, soap, deodorant, nail clippers, clothing or uniforms
- Clean shared athletic equipment and surfaces after use
- See a healthcare provider if a wound shows signs of infection, such as redness, swelling, pain or drainage. Prompt evaluation and treatment will prevent the infection from getting worse

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than normally expected. The local health department should be notified of suspected and/or documented cases of MRSA if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Center for Disease Control and Prevention (CDC):
  - Schools and Daycares: MRSA Prevention Response
  - Athletes: MRSA Prevention and Control
  - Athletic Facilities: MRSA Prevention and Control
  - MRSA Basics
  - Factsheets and Posters
- Indiana Department of Health (IDOH):
  - MRSA Webpage
  - MRSA Quick Facts

MOLLUSCUM CONTAGIOSUM

CLINICAL DESCRIPTION:

Molluscum contagiosum is a benign, superficial skin infection caused by a poxvirus. It is characterized by small pearly papules with a central depression whose core may be expressed, producing a white cheesy material. The lesions average two to five mm in size and are usually painless but may become inflamed, red and swollen. Molluscum contagiosum is a self-limited infection; the papules usually resolve within 6 to 12 months but may take as long as four years to resolve.

INCUBATION PERIOD:

The incubation period is estimated to be between two weeks and six months.

MODE OF TRANSMISSION:

The virus that causes molluscum spreads from direct person-to-person physical contact and through contaminated fomites. Fomites are inanimate objects that can become contaminated with viruses; in the instance of molluscum contagiosum, this can include linens such as clothing and towels, bathing sponges, pool equipment and toys. Molluscum can spread from one person to another by sexual contact.

Someone with molluscum can spread it to other parts of their body by touching or scratching a lesion and then touching another part of their body. This is called autoinoculation. Shaving and electrolysis can also spread molluscum to other parts of the body.

Some investigations report increased spread of molluscum contagiosum in swimming pools. However, it has not been proven how or under what circumstances swimming pools might increase the spread of the virus. Activities related to swimming might be the cause. For example, the virus might spread from one person to another if they share a towel or toys. More research is needed to whether and for how long the molluscum virus can survive in swimming pool water and if such water can infect swimmers.

PERIOD OF COMMUNICABILITY:

The virus lives only in the top layer of skin; once the lesions are gone the virus is gone and it cannot be spread to others.

EXCLUSION/REPORTING:

Molluscum is not a reportable condition in Indiana. If the incidence of molluscum exceeds the normal baseline in your school, then the local health department should be notified. Exclusion from school is not practical since these lesions may persist for extended periods.

PREVENTION/CARE:

- **Wash your hands:** Keeping hands clean is the best way to avoid molluscum infection and many other infections.
- **Don't scratch or pick molluscum bumps:** Don’t scratch or pick skin that has bumps or blisters. This rule applies not only to your own skin but to anyone else's. Scratching can spread the virus to other parts of the body and make it easier to spread to others.
- **Keep molluscum bumps covered:** Keep affected skin clean and covered with clothing or a bandage to prevent others from touching the bumps. When there is no risk of contact with others, such as during sleep, uncovering the area can help keep skin healthy.
- **Sports and activities to avoid when you have molluscum:** To prevent spread, individuals with molluscum should not participate in contact sports unless all bumps can be fully covered with clothing or bandages. Wrestling, basketball and football are examples of contact sports. Activities that use shared gear should also be avoided. Helmets, baseball gloves and balls are examples of shared gear.
- **Swimming:** Swimming should be avoided unless all growths can be covered with watertight bandages. Personal items (such as towels, goggles and swimsuits) should not be shared. Other items and equipment (such as kick boards and water toys) should be used only when all bumps are covered by clothing or watertight bandages.
- **Other ways to avoid transmitting infection**: Personal items that may spread the virus should not be shared by people with molluscum. Some examples of personal items are unwashed clothes, hairbrushes, wrist watches and bar soap. People with molluscum should not shave or have electrolysis performed on body areas that have growths. People who have bumps in the genital area (on or near the penis, vulva, vagina or anus) should avoid sexual contact until they have seen a healthcare provider.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or particular population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of molluscum contagiosum if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Molluscum Contagiosum
  - Daycare Providers
- Photographs of Disease/Condition:
  - Molluscum Contagiosum

PEDICULOSIS HUMANUS CAPITIS

(Head Lice)

CLINICAL DESCRIPTION:

Pediculosis humanus capitis is an infestation of live lice or nits (eggs) in the hair on the head. Head lice live close to the scalp and are most visible behind the ears or at the base of the neck. Lice depend on human blood to live and can only survive up to two days away from the scalp. The main symptom of head lice infestation is itching.

INCUBATION PERIOD:

Eggs typically hatch in about one week, and the resultant lice can begin to reproduce about a week after hatching. The typical adult louse lives 20 - 30 days and lays four to five eggs a day; however, the eggs will only hatch if they are less than one week old and are near the scalp.

MODE OF TRANSMISSION:

Transmission occurs by direct head-to-head contact with a person who has a live infestation. Less commonly, it can occur through direct contact with personal belongings that are harbor lice, such as combs, hairbrushes, hats, towels and pillowcases.

PERIOD OF COMMUNICABILITY:

A person can spread lice as long as live lice remain present. Head lice are most common among children attending childcare or elementary school.

EXCLUSION/REPORTING:

It is generally not recommended to exclude a student from school if head lice is found on their person or belongings. Parents or guardians should be notified to alert them of potential infestation. Educational materials should also be provided. The American Association of Pediatrics and the National Association of School Nurses recommend discontinuing "no-nit policies". The CDC notes that nits may be misdiagnosed and, if present, are

cemented to the hair shaft and not likely to be transferred. They further state that the adverse effect of lost school days on students and families far outweighs any health risk. Head lice infestation is not listed as a reportable communicable disease under Rule 410 IAC 1-2.5 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

- Instruct parents/guardians to use the over-the-counter or prescription pediculicides (lice medicine) as directed in the package insert. Infested persons should not use a combination shampoo/conditioner or conditioner before using lice medicine and should not rewash hair for one to two days after the lice treatment is removed.
- Detection of live lice more than 24 hours after treatment suggests treatment failure. Parents should be advised to call their healthcare provider before retreating, as a different pediculicide may be necessary. Many OTC pediculicides have lost effectiveness due to resistance.
- After an effective treatment, a second treatment with the same pediculicide according to package directions (usually seven to nine days after the first treatment) may be necessary to kill recently hatched lice and rid the child of infestation
- Household contacts should be evaluated for lice or nits and, if infested, should be treated at the same time as the child. Parents are encouraged to comb out and completely remove all nits.
- Parents should be instructed in home control measures, including laundering items in hot soapy water or putting items in a hot dryer cycle for 30 minutes. Brushes and combs should be thoroughly cleaned or boiled.
- Insecticide treatment of the home and/or vehicles is not indicated.
- Presence of lice is not indicative of poor hygiene or unhygienic environment.
- Head lice rarely cause direct harm; they are not known to transmit infectious agents from person to person.
- There is a lack of scientific evidence as to whether suffocation of lice with occlusive agents, such as petroleum jelly or olive oil, is effective in treatment.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Lice Basics
  - Providing Care for Individuals with Head Lice
- American Academy of Pediatrics:
  - Publication on Head Lice
- National Association of School Nurses:
  - Head Lice Management in Schools
- Photographs of disease/condition:
  - Head Lice

RINGWORM

(Tinea)

CLINICAL DESCRIPTION:

Ringworm is an infection caused by a fungus that can affect the skin on the body (*Tinea corporis*), scalp (*Tinea capitis*), groin area (*Tinea cruris* "jock itch") or feet (*Tinea pedis* "athlete's foot"). Ringworm usually begins as a small red bump or papule that spreads outward, so that each affected area takes on the appearance of a red, scaly outer ring with a clear central area. The lesions are frequently itchy and can become infected if scratched. Children with pets can also get ringworm. Ringworm has nothing to do with worms.

INCUBATION PERIOD:

The incubation period for *Tinea capitis*, *Tinea corporis*, *Tinea cruris* and *Tinea pedis* is one to three weeks.

MODE OF TRANSMISSION:

Transmission is usually by direct contact with a human or animal source. *Tinea capitis* can also be transmitted by inanimate infected objects such as the back of seats, combs, brushes or hats. *Tinea cruris*, *corporis* and *pedis* can be contracted from places such as shower stalls, benches, contaminated floors and articles used by an infected person.

PERIOD OF COMMUNICABILITY:

A person can spread ringworm if lesions are present and viable fungus persists on contaminated materials and surfaces.

EXCLUSION/REPORTING:

According to the 2009 American Academy of Pediatrics *Red Book,* students with a fungal infection of the skin should be referred to a medical provider for treatment; however, students who fail to receive treatment do not need to be excluded unless the nature of their contact with other students could potentiate spread.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that of which is normally expected. The local health department should be notified of suspected and/or documented cases of ringworm if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

PREVENTION/CARE:

- Students infected with *tinea pedis* should be excluded from swimming pools and from walking barefoot on locker room and shower floors until treatment has been initiated. All people should be encouraged to wear waterproof shoes in public facilities.
- Over-the-counter medications are available. Consult a doctor for severe cases or cases that do not improve after two weeks of treatment. Avoid contact sports until lesions are gone.
- Students with *tinea capitis* should be instructed not to share combs, hats, hair accessories or hairbrushes.
- Clean and drain school shower areas frequently. Athletic mats and equipment should also be frequently cleaned.
- Always wash hands after contact with animals.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Ringworm and Fungal Nail Infections
- National Institutes of Health:
  - Ringworm

SCABIES

CLINICAL DESCRIPTION:

Scabies is a skin infection caused by the burrowing itch mite *Sarcoptes scabiei,* which can only be seen with a microscope. It is characterized by itching, particularly at night, and blister-like sores in the burrows of the skin, which may become infected. These sores are especially prevalent in the webs between the fingers, the heels of the palms, the wrists, armpits, buttocks, genitalia and elbows. Nipples may also be affected in older females. The crusted Norwegian form is especially contagious and often spread indirectly.

INCUBATION PERIOD:

The incubation period for scabies ranges from two to six weeks for the first infection; for subsequent infections, the incubation may be as short as a few days.

MODE OF TRANSMISSION:

Scabies is transmitted by close (including sexual) skin-to-skin contact with an affected individual. Contact with bedding, towels or clothing (including undergarments) of an infected person can occasionally be a means of spreading scabies.

PERIOD OF COMMUNICABILITY:

A person can spread scabies from the time of infection until the mites and eggs are destroyed by treatment.

EXCLUSION/REPORTING:

Infested persons should be excluded from school until the day after treatment. Scabies is not listed as a reportable communicable disease in Rule 410 IAC 1-2.5 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Students or staff may return to school a day after treatment is started or as directed by the healthcare provider. No over-the-counter medications have been approved for scabies treatment. Permethrin is the treatment of choice for those over 2 months old; however, retreatment, about a week apart, may be necessary to eliminate all mites.
- Presence of scabies does not necessarily indicate poor hygiene or unhygienic environment.
- Clothing and bedclothes of the infected person and of all the people in their household should be well-laundered.
- Insecticide treatment of the home or any school facility is not recommended.
- Caregivers who have prolonged skin-to-skin contact with a student infested with scabies may benefit from prophylactic treatment.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that of which is normally expected. The local health department should be notified of suspected and/or documented cases of scabies if the number of cases exceed what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Scabies
- Photographs of Disease/Condition:
  - Scabies

SHINGLES

(Herpes Zoster)

CLINICAL DESCRIPTION:

Herpes zoster (shingles) is the latent manifestation of the primary varicella infection (chickenpox) caused by the varicella-zoster virus. Shingles is characterized as a rash on one side or both sides of the face or body, usually in patches along nerve pathways, or dermatomes, in crops similar to varicella lesions. The symptoms of shingles include pain, itching, or tingling in the area where the rash develops prior to blistering and possible severe pain in the rash location even after the rash resolves. Other symptoms can include chills, headache and upset stomach. The rash usually clears within two to four weeks. Although uncommon, shingles can occur in school-age children and vaccinated people with a history of varicella disease.

INCUBATION PERIOD:

Shingles is a reactivation of latent varicella zoster virus, so there is no applicable incubation period. Anyone who has recovered from varicella may develop shingles.

MODE OF TRANSMISSION:

Transmission of varicella-zoster virus can occur through direct contact with the rash or fluid from shingles lesions. Shingles is not transmissible through respiratory droplets. An exposed, susceptible individual may contract chickenpox (varicella) from contact with a shingles lesion; however, shingles itself cannot be contracted from another individual since it is a reactivation of latent varicella-zoster virus.

PERIOD OF COMMUNICABILITY:

A person can no longer spread the varicella-zoster virus once the lesions crust.

EXCLUSION/REPORTING:

If the site of the infection can be covered, individuals with shingles are not considered to be highly contagious and should not be excluded from school.

PREVENTION/CARE:

- People with shingles should keep the rash covered, avoid touching the lesions, and avoid contact with:
    - Pregnant women who never had chickenpox or chickenpox vaccine
    - Premature or low birth weight infants
    - People who are immunocompromised
- Wash hands properly and often
- No shingles vaccine is available for children; however, administration of varicella vaccine may prevent primary varicella infection if contact with a shingles case occurs
    - Zoster vaccine is recommended for people aged 50 years and older
    - Zoster vaccine is also recommended for adults 19 years and older who have weakened immune systems because of disease or therapy

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of shingles if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

Since shingles is not transmissible from person to person, there are no outbreak control recommendations. However, if a case of shingles transmits chickenpox to a susceptible person, please refer to the varicella chapter for details on outbreak control if there is subsequent transmission of chickenpox.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - About Shingles (Herpes Zoster)
    - Shingles Vaccination
- Indiana Department of Health (IDOH):
    - Shingles

STREPTOCOCCAL SORE THROAT (GAS) AND SCARLET FEVER

CLINICAL DESCRIPTION:

Streptococcal sore throat (strep throat) is an acute illness caused by group A *Streptococcus* (GAS) bacteria that can present with fever, pain when swallowing, red and swollen tonsils, white patches or streaks of pus on the tonsils, and swollen lymph nodes in the front of the neck. However, streptococcal sore throat can occur with very few symptoms. Many sore throats resembling "strep throat" are not due to GAS and may be caused by a viral infection.

Scarlet fever is a combination of a streptococcal sore throat and a skin rash caused by a toxin produced by GAS. The disease is characterized by a fine, red rash that feels almost like sandpaper. It appears first on the

upper body and then spreads to cover almost all of the body. In severe cases, this may occur over a period of several hours to several days. The rash fades on pressure and leads to flaking of the skin. With few exceptions, it is usually no more severe or dangerous than a strep throat without the rash. The main reason for concern with a streptococcal infection is the risk of developing rheumatic fever, which is markedly reduced by prompt treatment with appropriate antibiotics.

INCUBATION PERIOD:

The incubation period ranges approximately two to five days.

MODE OF TRANSMISSION:

The primary mode of transmission is by large respiratory droplets or direct contact with individuals who have strep throat or with carriers of the bacteria. People who are infected spread the bacteria by talking, coughing, or sneezing, which creates respiratory droplets that contain the bacteria. Strep throat and scarlet fever are rarely transmitted through direct contact with objects.

PERIOD OF COMMUNICABILITY:

Infected individuals typically cannot transmit the infection 24 hours after the initiation of an appropriate antibiotic therapy. A person who is untreated can spread the disease for several weeks.

EXCLUSION/REPORTING:

Children and staff with strep throat or scarlet fever should not return to school until they no longer have a fever and have taken antibiotics for at least 24 hours. Asymptomatic children or staff should not be excluded from school.

PREVENTION/CARE:

1. Children with a sore throat and fever and children with an unexplained fever over 101 degrees Fahrenheit should be referred for medical evaluation.
2. Encourage good personal hygiene. Enforce handwashing, cough/sneezing hygiene, and disposal of used tissues.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of streptococcal sore throat and scarlet fever if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Group A Strep Infection
  - Strep Throat
  - Scarlet Fever

- Indiana Department of Health (IDOH):
    - Group A Strep Infection

TICK-BORNE INFECTIONS

CLINICAL DESCRIPTION:

Ehrlichiosis is an infection caused by *Ehrlichia spp.* bacteria. In Indiana, *Ehrlichia chaffeensis* and *Ehrlichia ewingii* are transmitted by the bite of infected lone star ticks (*Amblyomma americanum*). Rarely, *Ehrlichia spp.* have been spread through blood transfusions and organ transplants. Symptoms typically begin within one to two weeks after the bite of an infected tick. Common signs and symptoms include fever, headache, myalgia, nausea, vomiting, and diarrhea. Rash is a common symptom in children infected with *Ehrlichia* chaffeensis. Doxycycline is the first-line treatment for adults and children of all ages with suspected ehrlichiosis.

Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi,* which is transmitted in Indiana by the bite of an infected blacklegged tick (*Ixodes scapularis*). The black-legged tick is found throughout Indiana. Lyme disease is the most commonly reported tick-borne disease in Indiana and in the United States. Typical symptoms include fever, headache, fatigue, and a skin rash with a characteristic "bullseye" appearance. If left untreated, infection can spread to joints, the heart, and the nervous system.

Spotted fever group rickettsioses (SFGR) are a group of diseases caused by closely related bacteria. These bacteria are spread to people through the bite of infected mites and ticks. Rocky Mountain spotted fever (RMSF) is the most serious and commonly reported disease in the spotted fever family. The causative agent of the disease, *Rickettsia rickettsii*, is transmitted in Indiana by the bite of an infected American dog tick (*Dermacentor variabilis*). RMSF is the most severe disease of the group and can be deadly if not treated early, especially in children.

Signs and symptoms of RMSF usually appear within three to 12 days of a bite from an infected tick. Untreated RMSF can rapidly progress to a serious and life-threatening illness. People in the early stages of illness can experience flu-like symptoms, such as high fever, severe headache, malaise, myalgia, swelling around the eyes and on the back of hands, nausea, vomiting, and diarrhea. Rash is a common sign in people who are sick with RMSF. Rash usually develops two to four days after fever begins. If left untreated, RMSF infections can be fatal. *Rickettsia parkeri* rickettsiosis, causative agent *Rickettsia parkeri,* is another disease in the spotted fever family. *Rickettsia parkeri* has been found in Gulf Coast ticks (*Amblyomma maculatum*) collected mostly in southern Indiana counties. Signs and symptoms of *R. parkeri* rickettsiosis usually appear within two to 10 days of a bite from an infected tick. *R. parkeri* rickettsiosis is characteristically less severe than RMSF and almost always associated with an inoculation eschar (ulcerated, necrotic lesion) at the site of tick attachment.

INCUBATION PERIOD:

The incubation period for ehrlichiosis is seven to 14 days. For Lyme disease, the incubation period ranges from three to 30 days with an average of seven days. For RMSF, the incubation period ranges from three to 12 days.

MODE OF TRANSMISSION:

These infections are most commonly transmitted through bites from infected ticks, although some cases transmission through blood transfusion or organ transplants have occurred. For Lyme disease, infected ticks must be attached for more than 24 hours to transmit infection; prompt tick removal can prevent transmission.

EXCLUSION/REPORTING:

For information on laws and rules regarding tick-borne diseases, see Rule 410 IAC 1-2.5 Sec. 61, 83, 96, 115 and 128 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf No specific control measures for schools are found in Indiana communicable disease laws or rules for tick-borne diseases. All cases of ehrlichiosis, Lyme disease and SFGR should be reported to the local health department where the student resides and the Indiana Department of Health.

PREVENTION/CARE:

- If a tick is found on a student, remove it immediately. To remove a tick, use tweezers to firmly grasp the body close to the skin and pull it straight out. If tweezers are not available, the fingers may be used if they are covered with a tissue, foil or wax paper to prevent direct contact with fluids from the tick. Do not twist or jerk the tick because the mouthparts may be left behind in the skin. Wash the area and your hands after the tick has been removed.
- Contact caregivers of the child about the tick bite. They should be instructed to seek medical evaluation if the student develops symptoms over the next 30 days.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of tick-borne infections if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix: Managing an Infectious Disease Outbreak in a School Setting. All cases of Ehrlichiosis, Lyme disease and Rocky Mountain Spotted Fever should be reported to the local health department where the student resides.

OTHER RESOURCES:

- Indiana Department of Health (IDOH):
  - Ehrlichiosis
  - Lyme Disease
  - Spotted Fever Group Rickettsiosis
  - Tick Bite Prevention

GENERAL NOTE ON FOOD HANDLERS:

Individuals who work in food preparation or assist children during mealtime in schools should take note if they have acute gastrointestinal symptoms. Food handlers should NEVER work or prepare food while experiencing diarrhea. Food handlers should observe a minimum of 24 hours* until after the last episode of diarrhea before returning to work.

***Note**: exclusion criteria differ based on the pathogen; this is a general guideline.

CAMPYLOBACTERIOSIS

CLINICAL DESCRIPTION:

Campylobacteriosis is a diarrheal disease caused by the bacteria of the genus *Campylobacter*. The species that most commonly infects humans is *Campylobacter jejuni*. Symptoms can include diarrhea, which is sometimes bloody, stomach cramps, fever, nausea and vomiting. *Campylobacter* symptoms usually last no longer than one week, and medical treatment is not typically required.

INCUBATION PERIOD:

Symptoms usually appear two to four days (range of one to 10 days) after exposure.

MODE OF TRANSMISSION:

Campylobacter is transmitted by food, most often from raw or undercooked poultry, eating something contaminated with raw poultry, consuming unpasteurized milk or drinking untreated water. It can also be transmitted via direct contact with feces from animals, such as animal cages or cat litter boxes; pets with diarrhea, especially puppies and kittens; and livestock or petting zoos.

PERIOD OF COMMUNICABILITY:

A person can spread *Campylobacter* while experiencing symptoms.

EXCLUSION/REPORTING:

Symptomatic persons diagnosed with *Campylobacter* or symptomatic persons linked by person, place or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours; and
- Disease prevention education has been provided by the local health department or provider

For more information on laws and rules regarding campylobacteriosis, see the Communicable Disease Reporting Rule 410 IAC 1-2.5 at: https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A campylobacteriosis outbreak is two or more cases of a *campylobacter* shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and

recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Food Safety
- Indiana Department of Health (IDOH):
  - Enteric (Foodborne and Waterborne) Diseases

CLOSTRIDIOIDES DIFFICILE INFECTIONS

(CDI or *C. difficile*)

CLINICAL DESCRIPTION:

Clostridioides difficile (C. difficile) infections (CDI) can affect anyone. Most infections occur during or after finishing a course of antibiotics. CDI can result in symptoms ranging from asymptomatic carriage, watery diarrhea, fever, nausea, abdominal tenderness, and loss of appetite. In severe cases CDI can results in complications like pseudomembranous colitis, sepsis and death.

INCUBATION PERIOD:

The incubation period is unknown.

MODE OF TRANSMISSION:

C. difficile is acquired from the environment or from the stool of another colonized or infected individual by the fecal-oral route.

PERIOD OF COMMUNICABILITY:

The ability of *C. difficile* to form spores allows the bacteria to survive in the environment for weeks or months.

EXCLUSION/REPORTING:

Children are at a lower risk for CDI. Infected children should receive care from a provider. Children with *C. difficile* diarrhea should be excluded for the duration of diarrhea. Infection control measures should be enforced.

PREVENTION/CARE:

Meticulous hand hygiene, especially after using the restroom and before eating, is the most important factor for decreasing transmission of CDI. Washing hands with soap and water is effective for *C. difficile*. Regular cleaning of surfaces in restrooms with bleach or another EPA-approved, spore-killing disinfectant is recommended. A designated restroom should be considered for an infected child. Refer to the following guidance on proper handwashing and transmission prevention:

- Centers for Disease Control and Prevention:
  - Handwashing Guidance: https://www.cdc.gov/handwashing/index.html
  - Caring for yourself and others | *C. difficile*: https://www.cdc.gov/c-diff/after/index.html

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), an outbreak occurs when cases of a disease in a community, region, or population occur at increased rate when compared to that which is normally expected. The local health department should be notified of suspected and/or documented cases of CDI if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - *C. diff (Clostridioides difficile)*
- Indiana Department of Health (IDOH):
  - *Clostridioides difficile*

CRYPTOSPORIDIOSIS

CLINICAL DESCRIPTION

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites of the genus *Cryptosporidium*. The most common species that infect humans are *Cryptosporidium parvum* and *Cryptosporidium hominis*. Symptoms can include watery diarrhea, stomach cramps, fever, nausea, weight loss and vomiting. Symptoms usually last one to two weeks; however, symptoms can subside and then return for up to 30 days. Cryptosporidiosis is typically self-limiting.

INCUBATION PERIOD:

Symptoms usually begin seven days (range of two to 10 days) after a person becomes exposed.

MODE OF TRANSMISSION:

Cryptosporidium is transmitted by the fecal-oral route from an infected animal or person. Water can act as a vehicle for transmission in pools or recreational water settings. *Cryptosporidium* is especially chlorine tolerant and may contaminate pools even after hyperchlorination.

PERIOD OF COMMUNICABILITY:

Some people with cryptosporidiosis may not have any symptoms, but they can still pass on the disease to others. After infection, people can shed *Cryptosporidium* in their stool for months. People with weakened immune systems may not be able to clear the infection. This may lead to prolonged disease and even death.

EXCLUSION/REPORTING:

Symptomatic persons diagnosed with *Cryptosporidium* or symptomatic persons linked by person, place or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours; symptoms may be relapsing and should be monitored
- Has completed effective treatment, if indicated
- Disease prevention education is provided by the local health department

- For more information on laws and rules regarding cryptosporidiosis, see the Communicable Disease Reporting Rule 410 IAC 1-2.5 at: https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. Always rinse off before going swimming, avoid swallowing water even when swimming in treated pools and avoid swimming while experiencing diarrhea. Enforce exclusion of ill students and staff members. **PLEASE NOTE: Using hand sanitizer does NOT affect this parasite.** You **MUST** use soap and water. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html . If a child has an episode of diarrhea in a daycare or school setting, please utilize the proper bleach sanitizing solution from the Family and Social Services Administration: https://forms.in.gov/Download.aspx?id=9375.

AGRICULTURAL FIELD TRIPS (PETTING ZOOS, FAIRGROUNDS, FARMS):

Cryptosporidium can be spread from contact with animals. All mammals, especially young animals, can get cryptosporidiosis; however, calves and lambs are most often affected. Field trips to agricultural venues or locations with pettings zoos can be a fun way for school-aged children to learn about animals, however care to prevent illness in this setting is imperative for young children.

Here are some helpful tips to keep in mind when your school is planning a field trip to an agricultural venue or petting zoo:

- Children younger than 5 years are more likely to become ill from contact with animals. Because some kindergarteners may be younger than 5 years, it is best to reserve field trips to agricultural venues for children in first grade or higher.
- Regardless of age, kids and adults should wash their hands after having contact with animals or their environment. A person can still become sick from an animal's environment without direct contact with the animal.
- Hand sanitizer is NOT an effective substitute for handwashing since *Cryptosporidium* is not killed by hand sanitizer. Chaperones of field trips should be informed of the need for handwashing before/after trips.
- Eating and drinking should not be allowed in animal environments. Children and adults should wash their hands prior to consuming any food or beverages

For more information on reducing the risk of illness from farm animals, please see CDC's Animal Exhibits website at Farm Animals | Healthy Pets, Healthy People | CDC

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A Cryptosporidiosis outbreak is two or more cases of *cryptosporidium* shown by an investigation to have resulted from a common exposure, such as water at a common source. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - About Cryptosporidium

E. COLI INFECTION (SHIGA TOXIN-PRODUCING AND HEMOLYTIC UREMIC SYNDROME)

CLINICAL DESCRIPTION:

Escherichia coli (*E. coli*) infection is a bacterial disease, with the most severe infection caused by *E. coli* strains that produce a potent toxin. These strains are known as Shiga toxin-producing *E. coli* (STEC). Symptoms can include bloody or non-bloody diarrhea, stomach cramps, low-grade fever, nausea, weight loss and vomiting. Approximately 5-10% of people infected with STEC infection can develop the condition post-diarrheal hemolytic uremic syndrome (HUS). This condition can lead to kidney failure and death, particularly in children under the age of 5. Antibiotics should not be used to treat this infection as there is no evidence that antibiotic treatment is helpful and antibiotic treatment may increase the risk of HUS.

INCUBATION PERIOD:

Symptoms usually begin three to four days (range of one to 10 days), after exposure and last for approximately five to 10 days.

MODE OF TRANSMISSION:

STEC is transmitted by consuming contaminated food or beverages or from person-to-person or animal-to-person by the fecal-oral route.

PERIOD OF COMMUNICABILITY:

A person can spread STEC during acute illness and can shed STEC in stool for up to three weeks after symptoms resolve.

EXCLUSION/REPORTING:

Symptomatic persons diagnosed with STEC or HUS or symptomatic persons linked by person, place or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department

For more information on laws and rules regarding STEC or HUS, see the Communicable Disease Reporting Rule (410 IAC 1-2.5) at: https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. Please refer to the CDC's guidance on handwashing: https://www.cdc.gov/handwashing/index.html. Enforce exclusion of ill students and staff members.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A STEC outbreak is two or more cases of a STEC shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About *Escherichia coli* Infection
- Indiana Department of Health (IDOH):
  - *E. coli*

GIARDIASIS

CLINICAL DESCRIPTION:

Giardiasis is a diarrheal disease caused by the microscopic parasite *Giardia duodenalis*. Symptoms can include diarrhea, gas, greasy stools that tend to float, bloating, stomach cramps, fever, nausea and constipation. Symptoms usually last about two to six weeks.

INCUBATION PERIOD:

Symptoms usually begin within seven to 10 days, with a range of three to 25 days, after exposure.

MODE OF TRANSMISSION:

Giardia is transmitted by contaminated food or water or person-to-person by the fecal-oral route.

PERIOD OF COMMUNICABILITY:

A person can spread *Giardia* while symptomatic. Infected people can also carry *Giardia* for weeks or months. They may or may not have symptoms and can unknowingly infect others.

EXCLUSION/REPORTING:

Symptomatic people diagnosed with *Giardia* or symptomatic people linked by person, place or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours; symptoms may be relapsing and should be monitored
- Has completed effective treatment, if indicated
- Disease prevention education is provided by the local health department
- For more information on laws and rules regarding giardiasis, see the Communicable Disease Reporting Rule (410 IAC 1-2.5) at: https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html.

Enforce exclusion of ill students and staff members. If a child has an episode of diarrhea in a daycare or school setting, please utilize the proper bleach sanitizing solution from the Family and Social Services Administration: https://forms.in.gov/Download.aspx?id=9375.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A giardiasis outbreak is two or more cases of *giardia* shown by an investigation to have resulted from a common exposure, such as water at a common source. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About *Giardia* Infection
- Indiana Department of Health (IDOH):
  - Giardiasis

HEPATITIS A INFECTION

CLINICAL DESCRIPTION:

Hepatitis A is a disease of the liver resulting from an infection with the hepatitis A virus. Symptoms can include diarrhea, nausea, vomiting, fatigue, stomach cramps, fever, dark urine, pale or clay-colored stool, loss of appetite and jaundice. Jaundice is less common in children under the age of 6 years old. There is no long-term carrier state with hepatitis A infection. Individuals, particularly children, may be asymptomatic but still infectious.

INCUBATION PERIOD:

Symptoms usually occur suddenly and begin 28-30 days (range of 15-50 days) after exposure. Symptoms typically last less than two months, although 10-15% of cases have symptoms lasting up to six months. Hepatitis A cannot become chronic.

MODE OF TRANSMISSION:

Hepatitis A is transmitted by the fecal-oral route. Foods and untreated water can become contaminated with hepatitis A virus, but this is less common in the United States.

PERIOD OF COMMUNICABILITY:

A person can spread hepatitis A during the infectious period, defined as 14 days before and seven days after the onset of jaundice or, if jaundice does not occur, seven days before and 14 days after the onset of symptoms.

EXCLUSION/REPORTING:

Symptomatic people diagnosed with hepatitis A or symptomatic people linked by person, place or time to a case are excluded from attending school:

- During the infectious period (14 days before or seven days after onset of jaundice or seven days before and 14 days after symptom onset if no jaundice)
- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department

For more information on laws and rules regarding hepatitis A see the Communicable Disease Reporting Rule 410 IAC 1-2.5- 104 at: https://www.in.gov/health/idepd/communicable-disease-reporting/

PREVENTION/CARE:

Post-exposure prophylaxis (hepatitis A vaccine or immune globulin (IG) if indicated) is recommended for household and sexual contacts and contacts exposed to food prepared by the case within two weeks of exposure. When the vaccination schedule is properly followed, the hepatitis A vaccine is nearly 100% effective. Routine school vaccination requirements have curbed most hepatitis A infections in the United States. School immunization requirements for hepatitis A can be found on the IDOH School Resources webpage at https://www.in.gov/health/audiences/school-representatives/school-administrators-and-nurses/#School_Immunization_Requirements

Hepatitis A virus is especially hardy and may remain on surfaces for months if not properly disinfected with bleach-based cleaner. Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. PLEASE NOTE: Using hand sanitizer does NOT kill this virus. You MUST use soap and water. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate in excess of that which is normally expected. A hepatitis A outbreak is two or more cases of hepatitis A shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Hepatitis A
- Indiana Department of Health (IDOH):
  - Hepatitis A

NOROVIRUS INFECTION

CLINICAL DESCRIPTION:

Norovirus, the most common cause of viral gastroenteritis, is highly contagious, with symptoms including watery diarrhea, stomach cramps, nausea, vomiting, headache, muscle aches and fatigue. Most cases have no fever or a slight fever. Illness is self-limiting and symptoms generally last 24-48 hours. Although often termed "stomach flu," norovirus infection should not be confused with influenza, which is a respiratory illness.

INCUBATION PERIOD:

Symptoms usually begin 24-48 hours (range of 12-72 hours) after exposure.

MODE OF TRANSMISSION:

Norovirus is transmitted by the fecal-oral route.

PERIOD OF COMMUNICABILITY:

A person is most likely to spread norovirus when experiencing symptoms and during 72 hours after recovery. Some studies indicate that those infected can shed virus up to two weeks after recovery or that it is possible to shed the virus within the day before symptom onset. Only a very small dose of the virus is needed to cause infection.

EXCLUSION/REPORTING:

It is recommended that people with diarrhea and/or vomiting be excluded from attending school until asymptomatic for at least 24 hours.

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after swimming and before and after food preparation. PLEASE NOTE: Using hand sanitizer does NOT kill this virus. You MUST use soap and water. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html.

Enforce exclusion of ill students or staff members. Inform caregivers of children experiencing signs of dehydration to seek medical attention. Regular, scheduled cleaning of surfaces in restrooms with bleach or another EPA-approved, spore-killing disinfectant is advised. See more information at: https://forms.in.gov/Download.aspx?id=9375.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A norovirus outbreak is two or more cases of norovirus, or a similar illness shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - Norovirus
- Indiana Department of Health (IDOH):
    - Norovirus (Viral Gastroenteritis)

SALMONELLOSIS

CLINICAL DESCRIPTION:

Salmonellosis is a diarrheal disease caused by bacteria from the genus *Salmonella***.** Symptoms can include diarrhea (sometimes bloody), nausea, vomiting, stomach cramps and fever. Most people recover within four to seven days without medical treatment**.**

INCUBATION PERIOD:

Symptoms usually begin 12-36 hours (range of six to 72 hours) after exposure.

MODE OF TRANSMISSION:

Salmonella is transmitted by undercooked or contaminated food or beverages; person-to-person by the fecal-oral route; and contact with infected or carrier animals including amphibians, reptiles and poultry.

PERIOD OF COMMUNICABILITY:

A person can spread *Salmonella* at any time while symptomatic. Infected people may carry *Salmonella* in their bodies for weeks or months without symptoms and unknowingly infect others.

EXCLUSION/REPORTING:

People diagnosed with *Salmonella* or symptomatic people linked by person, place or time to a confirmed case are excluded from attending school until:

- Asymptomatic for at least 24 hours. *
- Disease prevention education is provided by the local health department.

For more information, please see the Communicable Disease Reporting Rule 410 IAC 1-2.5 -130 at https://www.in.gov/health/idepd/communicable-disease-reporting/.

**Exclusion requirements are different for food handlers*

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming and before and after food preparation. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html. Enforce exclusion of ill students and staff members. See FSSA Sanitizing Solutions for cleaning public facilities at https://forms.in.gov/Download.aspx?id=9375

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate higher than expected. A salmonellosis outbreak is two or more cases of *Salmonella* shown by an investigation to have resulted from a

common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - *Salmonella* Infection
- Indiana Department of Health (IDOH):
  - Salmonellosis

SHIGELLOSIS

CLINICAL DESCRIPTION:

Shigellosis is an infectious disease caused by bacteria from the genus *Shigella*. Symptoms can include diarrhea (sometimes bloody), sudden stomach cramps, nausea, fever and the sensation of needing to pass stool even when the bowels are empty. Illness typically lasts four to seven days, and cases should be treated with appropriate antimicrobial therapy in severe cases to reduce shedding. Antibiotic resistance is common, so antibiotic sensitivities are strongly recommended.

INCUBATION PERIOD:

Symptoms usually begin 24-72 hours, with a range of 12 hours-five days, after exposure.

MODE OF TRANSMISSION:

Shigella is typically transmitted person-to-person by the fecal-oral route or by drinking contaminated water.

PERIOD OF COMMUNICABILITY:

A person can spread *Shigella* while symptomatic and continue to shed *Shigella* in their stool for several weeks after symptoms are resolved if not treated with appropriate antibiotics. Some people may have no symptoms and can still spread the infection to others.

EXCLUSION/REPORTING:

People diagnosed with *Shigella* or symptomatic people linked by person, place or time to a confirmed case are excluded from attending school until:

- Asymptomatic for at least 24 hours AND
  - Initiation of effective antibiotic therapy for at least 48 hours supported by antibiotic susceptibility testing OR
  - One negative stool culture has been collected at least 48 hours after cessation of antibiotic therapy, if case was treated with antibiotics
- Disease prevention education is provided by the local health department

For more information, please see the Communicable Disease Reporting Rule (410 IAC 1-2.5) at https://www.in.gov/health/idepd/communicable-disease-reporting/

PREVENTION/CARE:

Encourage frequent handwashing, particularly after using the restroom, after assisting someone with diarrhea and/or vomiting, after swimming and before and after food preparation. Ensure that all restrooms are well equipped with soap, water and paper towels. Please refer to the CDC's handwashing guidance: https://www.cdc.gov/handwashing/index.html. Enforce exclusion of ill students and staff members.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. A shigellosis outbreak is two or more cases of *Shigella* shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - *Shigella* Infection
- Indiana Department of Health (IDOH):
    - Shigellosis

ASEPTIC (VIRAL) MENINGITIS

CLINICAL DESCRIPTION:

Viral meningitis is a disease marked by acute inflammation of the lining of the brain and spinal cord accompanied by symptoms that can include stiff neck, fever, headache, photophobia, vomiting and fatigue. Most cases of viral meningitis are caused by members of a group of viruses known as enteroviruses. Viral meningitis can be caused by other viruses including the mumps virus, measles virus, herpesviruses (including herpes simplex and varicella-zoster), influenza virus, arboviruses and lymphocytic choriomeningitis virus. Cases of viral meningitis can be linked to less severe cases of upper respiratory illness and/or rash illnesses. Viral meningitis is not particularly contagious, although small clusters of cases can occur in the school setting, usually in the late summer/early fall when different causes of viral meningitis are circulating.

INCUBATION PERIOD:

The incubation period varies depending on the virus involved. Enteroviral meningitis has an incubation period of three to six days.

MODE OF TRANSMISSION:

Transmission of viruses that can cause viral meningitis, when it does occur, is usually person-to-person by respiratory droplets and direct contact with nose and throat discharges. Enteroviruses can also be spread by the fecal-oral route for several weeks after the child has recovered. Although people with viral meningitis may spread the virus to others, infected individuals are not likely to develop meningitis. Only a small proportion of people infected with viruses that can cause meningitis actually develop meningitis.

PERIOD OF COMMUNICABILITY:

The period of communicability varies depending on the virus.

EXCLUSION/REPORTING:

Almost all cases of viral meningitis are hospitalized during the acute stage of illness. Exclusion criteria vary depending on the virus involved.

PREVENTION/CARE:

- Educate caregiver, concerning urgency of receiving medical evaluation.
- Encourage frequent handwashing and prompt disposal of used tissues.
- Encourage good cough and sneeze hygiene.
- Ensure that students practice good personal hygiene, especially among groups such as athletic teams where water bottle sharing, and other close contact situations are likely.
- Consider sending informational letters to caregivers when a case of viral meningitis occurs (sample available from local health or state health departments).

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of viral meningitis if the number of cases is more than what is normally experienced in your school or occurs with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Viral Meningitis
- Indiana Department of Health (IDOH):
  - Viral Meningitis

BED BUGS

CLINICAL DESCRIPTION:

Bed bugs are reddish brown, flat insects that are about ¼ inch long when fully grown. Unlike lice and scabies mites, they **do not** live on the human body. They hide in cracks and crevices near sleeping areas, especially mattresses, box springs and headboards. Bed bugs usually feed on the blood of humans during the night-time hours and then return to their hiding places. Some people may experience itching, pain and/or swelling of the skin where a bed bug bite occurs (such as the arms, face or back) within a day or two after a bite. Although the bites can cause considerable discomfort and loss of sleep, bed bugs **do not** transmit disease after feeding on multiple hosts.

INCUBATION PERIOD:

Bed bugs go through five immature or nymphal stages before becoming adults. A blood meal is required for a nymph to molt and progress to the next stage. Under ideal circumstances, development from egg to adult takes around one month. In a school environment, there are not suitable feeding hosts present at night, so development of an infestation in a school is unlikely.

MODE OF TRANSMISSION:

Bed bugs are renowned hitchhikers. Bed bugs are spread through the acquisition of infested secondhand furniture or by hiding on items used during travel, such as suitcases, outerwear and other belongings. They can occasionally be brought into schools via a student's book bag, clothing or other personal items from an existing infestation in a home. Though the risk is low, bed bugs could be transferred to another student's belongings if they are stored in close proximity.

PERIOD OF COMMUNICABILITY:

Transmission of bed bugs could occur at any time if present.

EXCLUSION/REPORTING:

It is not generally suggested that a student be excluded from school if a bed bug is found on their person or belongings. Parents or guardians should be notified to alert them of potential infestation. Educational materials should also be provided. Bed bugs are not listed as a reportable communicable disease under Rule 410 IAC 1-2.5 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

If it is determined that a student has brought a bed bug into school, several steps may be taken to avoid spreading the infestation to others. If a home infestation is identified, the student's belongings should be stored separately until the home situation is remedied. Upon arrival at school, the student could be sensitively and discreetly examined each day by the school nurse for the presence of bed bugs on their belongings. In the home environment, items routinely transported from home to school could be stored in plastic bins at both locations to avoid picking up bugs. Routine pest control programs for roaches, ants and other common household pests do not protect against bed bugs. Widespread treatment of a school specifically for bed bugs is generally not advised or effective. Consult a reputable pest control company if there is a concern.

OUTBREAKS:

An infestation of bed bugs in a school is unlikely, but inspection by a reputable pest control company can be performed if desired.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Bed Bugs
- Indiana Department of Health (IDOH):
  - Bed Bugs
  - Bed Bugs Quick Facts
- Michigan Department of Community Health:
  - Bed Bugs in Schools
- University of Kentucky Department of Entomology:
  - Bed Bugs
- Purdue University:
  - Insects and Ticks: Bed Bugs

COMMON COLDS

CLINICAL DESCRIPTION:

The common cold can be caused by several different viruses, including rhinoviruses, enteroviruses, adenoviruses, parainfluenza viruses, and seasonal coronaviruses. Seasonal coronaviruses should not be confused with SARS-CoV-2, the virus that causes Coronavirus Disease 2019 (COVID-19) | COVID-19 | CDC. Symptoms of a cold usually come on gradually. Cold symptoms most commonly include sneezing, a runny or stuffy nose, sore throat, and cough. Occasionally, cold symptoms can be more intense and include fatigue, weakness, slight aches/pains, mild to moderate chest discomfort and headache. Colds generally do not

result in serious health problems. For more information on the common cold, see the following links: Cold Versus Flu | Influenza (Flu) | CDC and Manage Common Cold | Common Cold | CDC.

MONONUCLEOSIS: EPSTEIN-BARR VIRUS

CLINICAL DESCRIPTION:

Mononucleosis is a disease caused by the Epstein-Barr virus (EBV), also known as human herpes virus 4, is one of the most common human viruses in the world. Symptoms can include fever, rash, exudative pharyngitis, swollen glands, extreme fatigue, headache and body aches. The spleen and liver may be swollen, and in some cases the spleen may be enlarged.

Participation in contact sports should be avoided until a full recovery is achieved to avoid spleen injury. Complications may include aseptic meningitis, encephalitis or Guillain-Barre syndrome. Fatigue lasting a few weeks may follow the infection. After you recover from an EBV infection, the virus becomes latent (inactive) in your body.

INCUBATION PERIOD:

Four to six weeks following exposure.

MODE OF TRANSMISSION:

Mononucleosis is spread by close personal contact with the saliva of an infected person. It can also spread through blood and semen during sexual contact, blood transfusions, and organ transplantations.

PERIOD OF COMMUNICABILITY:

The period of communicability is indeterminate. A person may spread the virus through the exchange of saliva for many months after infection. Since the virus becomes latent and can reactivate, people can carry and spread the virus through saliva and bodily fluids intermittently for life.

EXCLUSION/REPORTING:

Single cases of EBV and mononucleosis are not reportable to IDOH. People with infectious mononucleosis may be able to spread the infection to others for a period of weeks. However, no special precautions or isolation procedures are recommended since the virus is also found frequently in the saliva of healthy people. Corporation policies regarding exclusion for fever, etc. should be followed for those infected with EBV and mononucleosis. Follow physician recommendations for contact sports participation.

PREVENTION/CARE:

- Encourage good personal/hand/cough hygiene.
- Avoid exposure to saliva.
- There is no specific treatment for mononucleosis.
- Some interventions to assist in relief of symptoms include:
  - Getting plenty of bed rest
  - Drinking lots of water and fruit juices to relieve fever and prevent dehydration
  - Gargling with salt water to relieve sore throat

- Considering over-the-counter pain relievers. Do not give aspirin to children under the age of 16 years.
- Avoiding strenuous activities and contact sports because of the risk of splenic rupture, especially within the first three weeks after symptom onset.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of mononucleosis if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.).

For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Epstein-Barr Virus (EBV)
- Mayo Clinic:
  - Mononucleosis
- Photographs of disease/condition:
  - Mononucleosis Bing Photos
  - Mononucleosis

PINWORMS

CLINICAL DESCRIPTION:

Pinworm infection is caused by *Enterobius vermicularis,* a thin white roundworm that lives in the colon and rectum of infected individuals. Pinworm infection is the most common worm infection in the United States. Symptoms of a pinworm infection include perianal itching and disturbed sleep; some individuals may be asymptomatic. Diagnosis is made by applying transparent adhesive tape to the perianal area and examining the tape microscopically for eggs.

INCUBATION PERIOD:

The incubation period from ingestion of an egg until an adult gravid female migrates to the perianal region is one to two months or longer.

MODE OF TRANSMISSION:

Pinworms are transmitted directly by the fecal-oral route and indirectly through clothing, bedding, food or other articles (including toilet seats) contaminated with pinworm eggs.

PERIOD OF COMMUNICABILITY:

As long as gravid females discharge eggs on perianal skin. Eggs remain infective in an indoor environment for about two weeks.

EXCLUSION/ATTENDANCE:

There are no specific recommendations on the exclusion of children with pinworm infection from school.

PREVENTION/CARE:

- Encourage frequent handwashing, particularly after using the restroom and before and after food preparation; discourage nail biting and scratching of the anal area
- OTC medication is available for those older than age 2, and treatment is given in two doses: initially and then repeated in two weeks. The medication does not reliably kill pinworm eggs; therefore, the second dose is needed to prevent reinfection by adult worms that hatch from eggs not killed by the first treatment.
- Change bed linens and underwear of infected person daily for several days after treatment, avoiding aerial dispersal of eggs. Wash and dry discarded linen on the hot cycle to kill eggs. Clean and vacuum sleeping and living areas daily for several days after treatment. Households with more than one infected member are recommended to all be treated at the same time.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of pinworms if the number of cases exceeds what is normally experienced in your school or occurs with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - About Pinworm Infection

TUBERCULOSIS

CLINICAL DESCRIPTION:

Tuberculosis (TB) is a disease caused by the bacterium *Mycobacterium tuberculosis*. Although TB usually infects the lungs (pulmonary), the disease can also affect other body parts (extrapulmonary). Without proper treatment, TB can be fatal.
Symptoms of pulmonary TB disease include:

- A bad cough that lasts three weeks or longer
- Coughing up blood (hemoptysis)
- Night sweats
- Fever

- Chest pain
- Anorexia and/or weight loss
- Weakness or fatigue
- Chills

People with latent TB infection (LTBI) have TB bacteria in their bodies; however, because the bacteria are not active, these individuals do not feel sick and cannot spread TB to others. People with LTBI have no symptoms of TB disease but usually have positive tuberculin skin test (TST) or interferon gamma release assay (IGRA) and a normal chest radiograph. They need treatment for LTBI to prevent developing TB disease.

INCUBATION PERIOD:

Two to 10 weeks from infection to develop primary lesion or significant TST reaction or positive IGRA. Progression to TB disease is greatest in the first two years after infection.

MODE OF TRANSMISSION:

People with pulmonary TB disease can release TB bacteria into the air when they cough, sneeze, speak or sing. These bacteria can stay in the air for several hours. People who breathe air that contains TB bacteria can become infected if bacteria reaches their lungs. Transmission from children younger than 10 years is unusual.

PERIOD OF COMMUNICABILITY:

A person can spread TB from an assigned date of three months prior to symptom onset or a positive lab report. An individual is considered no longer infectious after: Patient is started on a multi-drug regimen; have had molecular drug susceptibility testing (DST) reassuring that resistance is not a concern or treatment regimen has been adjusted accordingly; have completed a minimum of five-days of multi-drug regimen directly observed therapy (DOT); are medically evaluated; and are clinically improving; All confirmed cases of multiple drug-resistant tuberculosis (resistant to isoniazid and rifampin) must be isolated until: molecular DST results are available; multi-drug treatment according to DST results; 14-days of directly observed therapy (DOT); medically evaluated and clinically improving; adherence to DOT. Contact the local health department for further information regarding infectivity.

EXCLUSION/REPORTING:

RIPE susceptible pulmonary tuberculosis disease cases and suspects who are not coughing, are clinically improving, and are known to be on adequate multi-drug TB treatment for five days are defined as noninfectious. All other pulmonary TB disease cases (multi-drug resistant (MDR) and suspects must be isolated until no longer infectious. Infectious people are excluded from school and exposure must be determined. For information on laws and rules regarding tuberculosis, please see the Communicable Disease Reporting Rule 410 IAC 1-2.5-75 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf or contact your state or local health department.

PREVENTION/CARE:

- Avoid close contact or spending prolonged time with known TB disease patients while they are infectious
- Treatment of LTBI reduces the risk that TB infection will progress to TB disease. Immunocompromised people, especially individuals living with HIV and children younger than 5 years old are at high risk of

developing TB disease once infected. Every effort should be made to begin appropriate and complete appropriate treatment for LTBI.

- Directly observed therapy is required for cases of TB disease

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of tuberculosis if the number of cases exceeds what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting**.**

OTHER RESOURCES

- Centers for Disease Control and Prevention (CDC):
  - Tuberculosis (TB)
- Indiana Department of Health (IDOH):
  - Tuberculosis
- Global Tuberculosis Institute:
  - Tuberculosis Handbook for School Nurses
- World Health Organization (WHO):
  - Health Topics – Tuberculosis
- Rutgers Health New Jersey Medical School:
  - Global TB Institute
- Curry International Tuberculosis Center
  - Pediatric Tuberculosis

SEXUALLY TRANSMITTED INFECTIONS

CHLAMYDIA, GONORRHEA, HUMAN PAPILLOMAVIRUS (HPV), HERPES SIMPLEX VIRUS 2, SYPHILIS, and TRICHOMONIASIS

CLINICAL DESCRIPTION

This section is included to inform school staff. It is not expected that school personnel will be directly involved with diagnosis or reporting of sexually transmitted infections (STIs) to the state health department because these infections are not transmitted through casual contact. STIs are diagnosed by licensed medical providers, and case investigations are conducted by local health departments or specially trained IDOH staff. Exclusion from school activities is not warranted for any STI because these infections cannot be passed through casual contact.

Sexually transmitted infections are transmitted by sexual activity such as vaginal, oral or anal sex. Not all STIs are required to be reported to state health departments, so data is limited regarding the number of people affected. The STIs that are of the greatest concern to school-age individuals include chlamydia, gonorrhea,

Human Papillomavirus (HPV), and herpes. Most of these diseases occur commonly in people between the ages of 15 and 24 years, and new herpes infections are most common among people aged 14-49. STIs often have no symptoms, so routine screening for sexually active individuals is important to reduce the spread of disease and prevent serious health problems. STIs that primarily affect an older population include HIV, syphilis, and trichomoniasis. Consider child sexual abuse when an STI is present in a student who is not sexually active. Call your local child protective services agency whenever abuse or neglect is suspected. The hotline is staffed 24 hours a day, seven days a week, 365 days a year, at 1-800-800-5556.

In Indiana, as in most other states, minors have the legal right to consent to their own testing and treatment for STIs and HIV. Confidentiality provisions are attached to this consent so that disclosure of testing information is prohibited to anyone without specific written consent of the minor. (IC 16-36-1-3(d)).

Control of spread involves an interview of the patient and referral of sexual contacts for medical examination and treatment. This is conducted by specially trained personnel statewide. School personnel may assist with STI prevention and control by 1) referring any student concerned they may be infected with an STI to a licensed healthcare provider for testing and treatment; and 2) cooperating with the local health agency or IDOH staff conducting a case investigation. Public health law allows for disclosure of confidential information to public health authorities for the purpose of case investigation. (45 CFR 164.512(b)) and https://www.hhs.gov/hipaa/for-professionals/privacy/guidance/disclosures-public-health-activities/index.html).

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Sexually Transmitted Infections (STIs)
  - STI Treatment Guidelines
- Indiana Department of Health (IDOH):
  - STI Surveillance
  - STI Prevention
- Planned Parenthood:
  - Clinics in Indiana
- American Public Health Association:
  - Control of Communicable Disease Manual, David L. Heymann, MD, Editor, 21st Edition, American Public Health Association, Publisher, 2022.

CHLAMYDIA

CLINICAL DESCRIPTION:

Chlamydia is caused by the bacteria *Chlamydia trachomatis* and is the most commonly reported STI and one of the most commonly reported diseases of any type in the United States and in Indiana. Nationally, almost two-thirds of new chlamydia infections occur among young people aged 15-24 years. Chlamydia is known as a "silent" infection because most infected people are asymptomatic and lack abnormal physical exam findings. Even when chlamydia causes no symptoms, it can damage a person's reproductive system. Females may experience abnormal vaginal discharge or a burning sensation when urinating. Some males may experience discharge from their penis, a burning sensation when urinating or pain and swelling in

one or both testicles (although this is less common). Those infected with rectal chlamydia may experience rectal pain, discharge, or bleeding.

INCUBATION PERIOD:

The incubation period of chlamydia is unclear. Given the relatively slow replication cycle of the organism, symptoms may not appear until several weeks after exposure in people who develop symptoms.

MODE OF TRANSMISSION:

Chlamydia is transmitted through sexual contact with the penis, vagina, mouth, or rectum.

PERIOD OF COMMUNICABILITY:

The period of communicability is not defined; however, a person can spread the infection for as long as they are untreated. It is believed this period may extend to months in an untreated individual.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for chlamydia. Reporting to IDOH is accomplished by laboratories and healthcare providers diagnosing the infection.

PREVENTION/TREATMENT:

The only way to avoid STIs is to not have vaginal, anal or oral sex. There are ways for a person who is sexually active to reduce their risk of acquiring chlamydia, such as being in a mutually monogamous relationship, being with a partner who has been tested and has negative test results, and/or using latex condoms the correct way every time they have sex.

Chlamydia can be cured with antibiotics. It is important that a person takes all the medication the doctor prescribes to cure the infection. When taken properly, it will stop the infection and could decrease the person's chances of having complications later. In women, a common complication is pelvic inflammatory disease (PID), an often-painful infection of the reproductive organs. Spread of the bacteria to the uterus or fallopian tubes can cause permanent damage that can lead to chronic pelvic pain, infertility, and ectopic pregnancy (which can be fatal).

OUTBREAKS:

It is not anticipated that a school would ever identify an outbreak of an STI since these would be reported by licensed healthcare providers. According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of STIs if the number of cases exceeds what is normally experienced in your school or occurs with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - About Chlamydia
    - Chlamydial Infections Treatment Guidelines

GONORRHEA

CLINICAL DESCRIPTION:

Gonorrhea is caused by the bacteria *Neisseria gonorrhoeae* and is the second most commonly reported STI and one of the most commonly reported diseases of any type in the United States and in Indiana. Gonorrhea is most common among young people ages 15-24 years old. Gonorrhea genital infections differ somewhat in presentation in males and females. Males who have symptoms may experience a burning sensation when urinating; a white, yellow, or green discharge from the penis; and painful or swollen testicles (although this is less common). In males, pain during urination and purulent (pus-like) discharge from the urethra usually occur two to eight days after exposure. Up to 20% of males have no symptoms. Most infected females are asymptomatic; however, females who have symptoms may experience a painful or burning sensation while urinating, increased vaginal discharge and/or vaginal bleeding between periods. Untreated gonorrhea infections can spread to the pelvic areas and even to the joints, heart, brain, and other organs in both males and females. Coexisting chlamydial infection and potential PID should be a concern, along with pharyngeal (throat) and anorectal infections.

INCUBATION PERIOD:

One to 30 days, usually two to seven days.

MODE OF TRANSMISSION:

Gonorrhea is transmitted through sexual contact with the penis, vagina, mouth or rectum.

PERIOD FOR COMMUNICABILITY:

The period of communicability is not defined; however, a person can spread the infection for as long as they are infected.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for gonorrhea. Reporting to IDOH is accomplished by laboratories and healthcare providers diagnosing the infection.

PREVENTION/TREATMENT:

The only way to avoid STIs is to not have vaginal, anal or oral sex. There are ways for a person who is sexually active to reduce their risk of acquiring gonorrhea, such as being in a mutually monogamous relationship, being with a partner who has been tested and has negative test results, and/or using latex condoms the correct way every time they have sex.

Gonorrhea can be cured with antibiotics. It is important that a person takes all the medication the doctor prescribes to cure the infection. When taken properly, it will stop the infection and could decrease the person's chances of having complications later.

In women, a common complication is pelvic inflammatory disease (PID), an often-painful infection of the reproductive organs. Spread of the bacteria to the uterus or fallopian tubes can cause permanent damage that can lead to chronic pelvic pain, infertility, and ectopic pregnancy (which can be fatal).

In men, gonorrhea may be complicated by epididymitis. In rare cases, this can lead to infertility.

If left untreated, gonorrhea can also spread to the blood and cause disseminated gonococcal infection (DGI). DGI is usually characterized by arthritis, tenosynovitis, and/or dermatitis. This condition can be life threatening.

OUTBREAKS:

It is not anticipated that a school would ever identify an outbreak of an STI since these would be reported by licensed healthcare providers. According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of STIs if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Gonorrhea
  - Gonococcal Infections Treatment Guidelines

HUMAN PAPILLOMAVIRUS (HPV)

CLINICAL DESCRIPTION:

Most human papillomavirus (HPV) infections are asymptomatic and result in no clinical disease. However, HPV can produce benign warts of the skin and mucus membranes and are associated with anogenital cancers. Non-genital warts include common skin warts, plantar warts, and flat warts. In addition, HPV is the most common sexually transmitted infection in the United States. Although the incidence of infection is high, most infections resolve spontaneously. A small proportion of infected people become persistently infected.

More than 100 types of HPV have been identified. Most HPV types infect the skin and cause common warts. However, HPV is found in 99% of cervical cancers and has been increasingly found in oral cancers, anal cancers, and penile cancers in men. Two types of HPV account for about 70% of cervical cancer. In addition, HPV infection is also associated with cancer of the vulva, vagina, penis, and anus, as well as cancer of the oral cavity. HPV is the leading cause of cervical cancer amongst women and a prominent cause of oropharyngeal cancers amongst men.

INCUBATION PERIOD:

The incubation period is unknown but is estimated to range from three months to several years.

MODE OF TRANSMISSION:

HPV is transmitted by direct contact, usually sexual, with an infected person. Transmission can occur while an infected individual is asymptomatic. Transmission occurs most frequently with sexual intercourse but can occur

following nonpenetrative sexual activity. Non-genital warts are acquired through contact with HPV in areas experiencing minor trauma to the skin.

PERIOD OF COMMUNICABILITY:

The period of communicability is unknown. The virus is most likely communicable during the acute infection and during persistent infection.

EXCLUSION/REPORTING:

HPV is not a reportable condition. There are no specific recommendations on the exclusion of children with HPV from school. State law (IC 20-34-4-3) requires schools to provide information to parents of sixth grade students about HPV. The letter to parents can be found at https://www.in.gov/health/files/6th-Grade-Immunization-Letter-English.pdf. Additional documents can be found on the CHIRP Document Center at http://CHIRP.in.gov/main.jsp.

PREVENTION/CARE:

Safe and effective vaccines are available to prevent some of the most common types of HPV. While not a requirement for school entry, students should receive the recommended doses of the HPV vaccines. It is recommended that all children 11-12 years of age begin the two- or three-dose series of 9-valent HPV vaccine. The vaccine is licensed for use in in males and females aged 9-45 years of age.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region, or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of HPV if the number of cases is more than what is normally experienced in your school or occurs with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Human Papillomavirus (HPV)
  - HPV Vaccination

HERPES SIMPLEX VIRUS 2

CLINICAL DESCRIPTION:

Genital herpes is an STI caused by two types of viruses—herpes simplex virus type 1 (HSV-1) and herpes simplex virus type 2 (HSV-2). While HSV-1, most commonly known as *oral* herpes, is commonly spread non-sexually, it and HSV-2 can be sexually transmitted and affect the genital area. Both strands are usually inactive, or "silent," and cause no symptoms. Some infected individuals will experience "outbreaks" of blisters and ulcers that are itchy and painful. Genital herpes is a recurrent, lifelong, viral infection but is asymptomatic or not recognized in at least two-thirds of those infected. A national study from 2015 to 2017 indicates prevalence of HSV-1 was 47.8% and prevalence of HSV-2 was 11.9%. Lesions are most infectious if fluid-filled vesicles

(blisters) are present, and infection can be severe in the newborn. Genital lesions pose no risk to others unless there is direct contact with infected lesions. It is not acquired from nonsexual sources, such as toilet seats.

INCUBATION PERIOD:

Two to fourteen days, with an average of four days.

MODE OF TRANSMISSION:

HSV-2 is transmitted by direct contact with infected skin and secretions during periods of asymptomatic or symptomatic viral shedding. Sores need not be present but will facilitate transmission if present. Transmission to the newborn occurs most commonly at delivery.

PERIOD OF COMMUNICABILITY:

There is a lifelong potential for spread of infection. Skin lesions are infectious until they are healed. The virus can be shed from the site of infection at any time; sores need not be present. Intermittent or suppressive therapy with specific antivirals may alleviate outbreaks and viral shedding and has been shown to reduce transmission.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for HSV-2. Herpes is not a reportable condition in the United States.

PREVENTION/TREATMENT:

The only way to avoid STIs is to not have vaginal, anal or oral sex. There are ways for a person who is sexually active to reduce their risk of acquiring herpes, such as being in a mutually monogamous relationship, being with a partner who has been tested and has negative test results and/or using latex condoms the correct way every time they have sex. However, condoms have limited effectiveness in HSV-2 prevention since viral shedding is possible and may transmit to a partner even in the absence of an outbreak and because herpes blisters often appear on skin not covered by the condom. There is no treatment that can cure herpes, but antiviral medications can shorten and prevent outbreaks while the person is taking their medication.

OUTBREAKS:

There will be no evidence to support an outbreak of this infection since reporting is not required.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Genital Herpes
  - Genital Herpes Treatment Guidelines

SYPHILIS

CLINICAL DESCRIPTION:

Syphilis is an STI caused by the bacterium *Treponema pallidum*. Syphilis is known as "the great imitator" since symptoms can be mistaken for other illnesses and can go away without treatment. In the United States, syphilis primarily impacts men who have sex with men (MSM). However, in recent years, the rate of

primary and secondary syphilis has been mostly increasing among MSM as well as heterosexual men and women. People infected with syphilis have two to five times greater risk of acquiring HIV.

Some examples of signs and symptoms of syphilis are:

- Chancre (firm, round, painless sore) at site of infection; many go unnoticed
- Skin rash, rough red or brown spots on palms of hands and bottoms of feet (may occur elsewhere)
- Mucous membrane lesions (sores in mouth, vagina, anus)
- Fever
- Sore throat
- Patchy hair loss
- Headaches
- Weight loss
- Fatigue
- Syphilis may also be asymptomatic

INCUBATION PERIOD:

Anywhere between 10 days and three months, usually around 21 days.

MODE OF TRANSMISSION:

Syphilis can be transmitted through vaginal, oral or anal sex when there is direct skin-to-skin contact with a syphilis sore or secondary symptom. If left untreated, syphilis can be spread perinatally from mother to child.

PERIOD OF COMMUNICABILITY:

One year if left untreated.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for syphilis. Reporting to IDOH is accomplished by laboratories and healthcare providers diagnosing the infection.

PREVENTION/TREATMENT:

The only way to avoid STIs is to not have vaginal, anal or oral sex. There are ways for a person who is sexually active to reduce their risk of acquiring syphilis such as being in a mutually monogamous relationship, being with a partner who has been tested and has negative test results, and/or using latex condoms the correct way every time they have sex. Syphilis can be cured with antibiotics.

OUTBREAKS:

It is not anticipated that a school would ever identify an outbreak of an STI since these would be reported by licensed healthcare providers. According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of STIs if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Syphilis
  - Syphilis Treatment Guidelines
- Indiana Department of Health (IDOH):
  - Congenital and Adult Syphilis Toolkit

TRICHOMONIASIS

CLINICAL DESCRIPTION:

Trichomoniasis ("Trich") is caused by infection with a protozoan parasite called *Trichomonas vaginalis*. The infection is more common in women than in men, and older women are more likely than younger women to have been infected with trichomoniasis. Although symptoms of the disease vary, most people who have the parasite cannot tell they are infected.

If symptoms are present for women, they may experience the following:

- Itching, burning, redness, or soreness of the genitals
- Discomfort with urination
- A change in their vaginal discharge (i.e., thin discharge or increased volume) that can be clear, white, yellowish, or greenish with an unusual "fishy" smell

Men may also experience the following:

- Itching or irritation inside the penis
- Burning after urination or ejaculation
- Discharge from the penis

INCUBATION PERIOD:

Four to 20 days, average of seven days.

MODE OF TRANSMISSION:

Trichomoniasis is transmitted through vaginal, anal or oral sex, but most commonly penile-vaginal sexual contact.

PERIOD OF COMMUNICABILITY:

The period of communicability is not defined; however, a person can spread the infection for as long as they are untreated.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for Trichomoniasis. Trichomoniasis is not a reportable condition in the United States.

PREVENTION/TREATMENT:

The only way to avoid STIs is to not have vaginal, anal or oral sex. There are ways for a person who is sexually active to reduce their risk of acquiring Trichomoniasis such as: being in a mutually monogamous relationship, being with a partner who has been tested and has negative test results and/or using latex condoms correctly every time they have sex. Trichomoniasis can be cured with antibiotics.

OUTBREAKS:

It is not anticipated that a school would ever identify an outbreak of an STI since these would be reported by licensed healthcare providers. According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of STIs if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Trichomoniasis
  - Trichomoniasis Treatment Guidelines

MPOX

CLINICAL DESCRIPTION:

Mpox, formerly known as monkeypox, is a viral infection that spreads through close contact with an infected person, animal, or contaminated materials. It can cause a rash, swollen lymph nodes, and other flu-like symptoms, such as fever, headache, and fatigue. Mpox can be severe in some populations, including people with weakened immune systems, children, and pregnant women. Currently, there is no treatment approved scientifically for mpox infections.

Some examples of signs and symptoms of mpox are:

- Rash (may be located on hands, feet, chest, face, or mouth or near the genitals, including penis, testicles, labia, vagina, and anus)
- Fever
- Chills
- Swollen lymph nodes
- Exhaustion
- Muscle aches and backache
- Headache
- Respiratory symptoms (e.g., sore throat, nasal congestion, or cough)

INCUBATION PERIOD:

Anywhere between three to 17 days. During this time, a person does not have symptoms and may feel fine.

MODE OF TRANSMISSION:

Mpox can be transmitted through close contact (including intimate or sexual contact) with a person with mpox, contact with contaminated materials used by someone with mpox, or direct contact with live or dead infected wild animals in some parts of Western and Central Africa, where mpox occurs regularly.

PERIOD OF COMMUNICABILITY:

From the time symptoms start until the rash has completely healed, which includes all scabs falling off and a new layer of skin forming.

EXCLUSION/REPORTING:

There are no specific exclusion provisions in Indiana communicable disease laws or rules for mpox. Reporting to IDOH is accomplished by laboratories and healthcare providers diagnosing the infection.

PREVENTION/TREATMENT:

The JYNNEOS vaccine is recommended for prevention of mpox. Getting both doses, four weeks apart, provides the best protection. If an individual is unvaccinated or unable to get vaccinated, they can lower their risk of acquiring mpox by avoiding close, skin-to-skin contact with people, animals, and objects that carry the virus. Washing hands often with soap and water, or using an alcohol-based hand sanitizer, is one of the best ways to protect someone from getting sick. Currently, there is no treatment approved scientifically for mpox infections.

OUTBREAKS:

It is not anticipated that a school would ever identify an outbreak of mpox since these would be reported by licensed healthcare providers. According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of mpox if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). In the case of an mpox outbreak, those exposed should isolate themselves, avoid close contact with others, and wash hands frequently. Additionally, those exposed should closely monitor symptoms and consider vaccination, ideally within four days of exposure. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - Monkeypox
    - Clinical Treatment of Monkeypox
    - Monkeypox Vaccination

WEST NILE VIRUS AND OTHER ARBOVIRAL DISEASES

CLINICAL DESCRIPTION:

Arboviruses are viruses that are transmitted by mosquitoes and other arthropods. Arboviruses found in the United States include West Nile virus (WNV), Saint Louis encephalitis virus (SLEV), Eastern equine encephalitis virus (EEEV), Western equine encephalitis virus (WEEV), Powassan virus (POWV), La Crosse virus (LACV) and other California serogroup viruses. Chikungunya virus (CHIKV) and dengue virus (DENV) are not currently endemic in the contiguous United States, but cases are occasionally seen in international travelers.

WNV is the most commonly reported arbovirus in Indiana and the United States. Most WNV infections are asymptomatic. Approximately 20% of infected people will develop a systemic febrile illness called West Nile fever, which is characterized by abrupt onset of fever, headache, myalgia, maculopapular rash and/or gastrointestinal symptoms. Less than 1% of infected people will develop neuroinvasive disease, such as aseptic meningitis, encephalitis, acute flaccid paralysis or other neuropathies. There is no specific medication available to treat WNV disease.

LACV is a rare cause of encephalitis that disproportionately affects children younger than 16 years. Most people infected with LACV do not develop any symptoms, however signs and symptoms of LACV disease usually appear within 5 – 15 days of a bite from an infected mosquito. Symptoms can include fever, headache, nausea, vomiting and tiredness. Less than 1% of LACV disease cases are fatal. Some people who recover will experience severe ongoing complications. There is no specific medication available to treat LACV disease.

INCUBATION PERIOD:

The incubation period is usually two to 14 days from the bite of an infected mosquito.

MODE OF TRANSMISSION:

WNV is primarily transmitted to humans through the bites of infected mosquitoes. The virus is rarely transmitted from person-to-person by blood transfusion, organ transplantation, and mother to baby, during pregnancy, delivery, or breastfeeding. WNV is not spread through casual contact from person-to-person.

EXCLUSION/ATTENDANCE:

For information on laws and rules regarding arboviral disease, see the Communicable Disease Reporting Rule (410 IAC 1-2.5) at https://www.in.gov/health/idepd/communicable-disease-reporting/. There are no specific recommendations on the exclusion of children or staff with WNV from school or other domestic arboviral infections. Children and staff with suspected arbovirus infections should avoid mosquito exposure while symptomatic. Any suspect case of arboviral disease (WNV, EEEV, SLEV, LACV, CHIKV or DENV) must be immediately reported to the local health department where the student or staff member resides and the Indiana Department of Health.

PREVENTION/CARE:

- Avoid exposure to mosquitoes during hours of biting or use mosquito repellents
- Destroy larvae, kill mosquitoes and eliminate areas for mosquito breeding

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak means cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of WNV or other arboviral infection if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting. Any suspect case of arboviral infection (WNV, EEEV, SLEV, LACV, CHIKV or DENV) must be immediately reported to the local health department and the Indiana Department of Health.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - West Nile Virus
- Indiana Department of Health (IDOH):
  - West Nile Virus

COVID-19

CLINICAL DESCRIPTION:

SARS-CoV-2 is a novel coronavirus that causes COVID-19, a contagious respiratory disease that spreads rapidly. COVID-19 can present with no symptoms (asymptomatic) in some individuals, while causing mild to severe illness and even death in others.

Symptoms vary and this list is not inclusive, but common symptoms of illness include:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea
- Conjunctivitis

INCUBATION PERIOD:

The incubation period ranges from two to 14 days.

MODE OF TRANSMISSION

The principal mode by which people are infected with COVID-19 is through exposure to respiratory fluids carrying infectious viruses. Respiratory droplets are produced when an infected person coughs, sneezes, breathes, sings, or talks. Exposure may occur:

- Between people who are in close contact with one another
- Through inhalation of very fine respiratory droplets and aerosol particles
- Contact with respiratory droplets and particles on exposed mucous membranes in the mouth, nose, or eye by direct splashes and sprays
- Touching mucous membranes with hands that have been soiled either directly by virus-containing respiratory fluids or indirectly by touching surfaces with virus on them
- Under certain circumstances (such as when people are enclosed spaces with poor ventilation) COVID-19 may be spread by airborne transmission
- COVID-19 spreads less commonly through contact with contaminated surfaces

PERIOD OF COMMUNICABILITY:

Infected individuals are contagious starting about 48 hours before symptom onset or a positive test if the individual is asymptomatic.

EXCLUSION:

Students or staff who are symptomatic for COVID-19 and have a positive test result are recommended to remain at their residence until symptoms resolve.

When a person can return to school depends on the nature of the illness. In general, a child returning to school should be well enough to participate in school (e.g., can adequately manage improving cough and congestion on own, not overly fatigued), and care of the returning child should not interfere with the school staff's ability to teach or care for other students. When Students or Staff are Sick | CDC

PREVENTION STRATEGIES:

CDC core prevention strategies include:

- Staying up to date with COVID-19 vaccines
    - Although vaccinated people sometimes get infected with the virus that causes COVID-19, staying up to date on COVID-19 vaccines significantly lowers the risk of getting very sick, being hospitalized, or dying from COVID-19.
- Practicing good hygiene (practices that improve cleanliness)
- Taking steps for cleaner air
- Documentation of immunization should be available in the Children and Hoosier Immunization Registry Program (CHIRP) for all students and adults who are fully vaccinated and boosted.

In addition, there are other prevention strategies that you can choose to further protect yourself and others.

- Wearing a mask and putting distance between yourself and others can help lower the risk of COVID-19 transmission.
- Testing for COVID-19 can help you decide what to do next, like getting treatment to reduce your risk of severe illness and taking steps to lower your chances of spreading COVID-19 to others.

Using these prevention strategies can be especially helpful when:

- Respiratory viruses, such as COVID-19, flu, and RSV, are causing a lot of illness in your community
- You or those around you have risk factors for severe illness
- You or those around you were recently exposed to a respiratory virus, are sick, or are recovering
    - Follow How to Protect Yourself and Others | COVID-19 | CDC if you test positive, especially how to isolate and when you can complete your isolation.
- Treatment
    - Treatment options are available and time sensitive. Contact your healthcare provider as soon as possible to discuss treatment options.
    - Contact your healthcare provider if symptoms worsen or patient has difficulty breathing

OUTBREAKS/REPORTING:

According to the IDOH Communicable Disease Reporting Rule (410 IAC 1-2.5-54), an outbreak is defined as the number of cases or percentage of disease occurring in a community, region or population that exceeds what is normally expected. In a school setting, this may be overall cases in a school or excessive cases within a classroom or activity group. During an outbreak, schools in collaboration with their local health department (LHD) may determine mitigation strategies to control spread of illness.

All communicable disease outbreaks shall be reported immediately to the local health department (LHD) and investigated through the standard communicable disease reporting process. Schools should assist their LHD with exposure notification when there is a cluster of positive COVID-19 cases or cluster of any other communicable illness in school. Schools should notify their LHD and IDOE whenever absenteeism from any for

any communicable illness reaches (20% or greater) or anytime schools are concerned about the level or unusual occurrence of any disease (even if the school hasn't reached 20 percent student absenteeism).

For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

See Appendix D: Reporting of Excessive Absenteeism, for guidelines on reporting school absenteeism greater than or equal to 20% to the local health department (LHD) and to the IDOE School Attendance Officer. Reporting to the IDOE School Attendance Officer is done by completing this link: https://form.jotform.com/43019024274952.

For a list of LHDs: https://www.in.gov/health/lhd/local-health-department-map/.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - COVID-19

DIPHTHERIA

CLINICAL DESCRIPTION:

Diphtheria is an acute bacterial infection of the respiratory tract, skin, or other mucus membranes, caused by toxin-producing strains of *Corynebacterium diphtheriae*. Symptoms of respiratory diphtheria may begin slowly and can include weakness, mild fever, sore throat, and swollen glands in the neck. The bacteria make a toxin that kills healthy tissues in the respiratory system. Within two to three days, this dead tissue forms a thick, gray coating that can build up in the throat or nose, making it difficult to breathe and swallow. Respiratory diphtheria is a serious infection, and 5-10% of cases die from the disease.
The bacteria can also infect the skin, causing open sores or ulcers. However, diphtheria skin infections rarely result in severe disease. Other *Corynebacterium* species bacteria (known as diphtheroids) can cause similar but less severe illness. These infections are not reportable but do highlight the necessity for rapid and appropriate lab testing (culture).

INCUBATION PERIOD:

The incubation period ranges from one to 10 days and is usually two to five days on average.

MODE OF TRANSMISSION:

Diphtheria is spread from person to person, usually through respiratory droplets, such as from coughing or sneezing. People can also get sick from touching infected open sores or ulcers.

PERIOD OF COMMUNICABILITY:

An untreated patient can spread diphtheria for two to six weeks. Effective antibiotic therapy typically terminates shedding after 48 hours.

EXCLUSION/REPORTING:

Whenever diphtheria is strongly suspected or proven, the local health department should be notified immediately. Individuals infected with diphtheria will be considered contagious until two cultures taken 24 hours apart are both negative and they have completed a recommended course of antibiotics. Close contacts should be observed for seven days for signs and symptoms of disease, cultured for *C. diphtheriae* and treated with oral antibiotics for prophylaxis. Contacts of diphtheria cases who are food handlers, daycare workers, or healthcare workers are excluded from work until laboratory testing indicates they are not carriers. For information on laws and rules regarding diphtheria, see the Communicable Disease Reporting Rule 410 IAC 1-2.5- 95 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

Safe and effective vaccines are available to prevent diphtheria. Children and staff should receive the recommended doses of DTaP, Td or Tdap vaccines to build and boost immunity against diphtheria infections. Indiana school immunization requirements in English and Spanish can be found at https://www.in.gov/health/immunization/parents-and-patients/#school-vaccines-requirements

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or particular population at a rate in excess of that which is normally expected. For diphtheria, one case constitutes an outbreak. Any case or suspected case is to be immediately reported to the local health department and/or the Indiana Department of Health. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Diphtheria
- Indiana Department of Health (IDOH):
  - Diphtheria

HUMAN PAPILLOMAVIRUS (HPV)

CLINICAL DESCRIPTION:

Most human papillomavirus (HPV) infections are asymptomatic and result in no clinical disease. However, HPV can produce benign warts of the skin and mucus membranes and are associated with anogenital cancers. Non-genital warts include common skin warts, plantar warts and flat warts. In addition, HPV is the most common sexually transmitted infection in the United States. Although the incidence of infection is high, most infections (9 out of 10) resolve spontaneously. A small proportion of infected people become persistently infected. More than 100 types of HPV have been identified. Most HPV types infect the skin and cause common warts. However, HPV is found in more than 90% of cervical cancers and has been increasingly found in oral cancers anal cancers and penile cancers in men. In addition, HPV infection is also associated with cancer of the vulva,

vagina, penis and anus, as well as cancer of the oral cavity. HPV is the leading cause of cervical cancer amongst women and a prominent cause of oropharyngeal cancers among men.

INCUBATION PERIOD:

The incubation period is unknown but is estimated to range from two weeks to eight months.

MODE OF TRANSMISSION:

HPV is transmitted by direct contact, usually sexual, with an infected person. Transmission can occur while an infected individual is asymptomatic. Transmission occurs most frequently with sexual intercourse but can occur following nonpenetrative sexual activity. Non-genital warts are acquired through contact with HPV in areas experiencing minor trauma to the skin.

PERIOD OF COMMUNICABILITY:

The period of communicability is unknown. The virus is most likely communicable during acute infection and during persistent infection.

EXCLUSION/REPORTING:

HPV is not a reportable condition. There are no specific recommendations on the exclusion of children with HPV from school. State law (IC 20-34-4-3) requires schools to provide information to parents of sixth grade students about HPV. The letter to parents can be found at https://www.in.gov/health/files/6th-Grade-Immunization-Letter-English.pdf. Additional documents can be found on the CHIRP Document Center at http://CHIRP.in.gov/main.jsp.

PREVENTION/CARE:

Safe and effective vaccines are available to prevent some of the most common types of HPV. HPV vaccination has the potential to prevent more than 90% of cancers caused by HPV. While not a requirement for school entry, students should receive the recommended doses of the HPV vaccines. It is recommended that all children 11-12 years of age begin the two- or three-dose series of 9-valent HPV vaccine. The vaccine is licensed for use in in males and females aged 9-45 years of age.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of HPV if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
    - Human Papillomavirus (HPV)
    - HPV Vaccination

INFLUENZA

CLINICAL DESCRIPTION:

Influenza (flu) is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and sometimes the lungs. Flu can cause mild to severe illness, and in some instances, may lead to death. Influenza usually comes on suddenly and symptoms can include fever or feeling feverish, chills, cough, sore throat, muscle aches or body aches, headaches, and tiredness. Although rare, vomiting, diarrhea, and nausea may occur in children but should not be confused with symptoms related to stomach or gastrointestinal illnesses. It is also important to note that not everyone with flu will have a fever.

INCUBATION PERIOD:

The incubation period is usually one (1) to four (4) days, with an average of two (2) days.

MODE OF TRANSMISSION:

Influenza viruses are spread mainly by tiny droplets made when people with flu cough, sneeze, or talk. These droplets can land in the mouth, nose, or eyes of people nearby. Less often, a person may become infected by touching a surface or object contaminated with influenza virus and then touching their eyes, mouth, or nose.

PERIOD OF COMMUNICABILITY:

A person can spread influenza viruses one (1) day before symptoms develop and up to five (5) days after becoming sick. People with flu are most contagious in the first three (3) to four (4) days after their symptoms begin.

PREVENTION/CARE:

The best protection against influenza infection is an annual flu **vaccination** before flu season starts, ideally by the end of October. Each year the vaccine contains the types of flu viruses predicted to cause illness in the coming flu season. Therefore, it is important to get vaccinated each year. The vaccine takes approximately 14 days for the full protective effect or immunity to occur. Flu vaccination is recommended for anyone age 6 months and older.

Cover: Teach students and staff to cough or sneeze into their elbow or upper sleeve or use a tissue when coughing or sneezing. Immediately discard the used tissue in the wastebasket.

Clean: Encourage frequent handwashing, particularly after coughing or sneezing, with soap and water. An alcohol-based hand cleaner will also work if soap and water are not available.

Contain: Encourage ill students and staff members not to attend school or social activities. Routinely clean and disinfect surfaces and objects according to your internal cleaning procedures.

EXCLUSION:

Exclusion of the student should be based on the condition of the child and if there is a school policy that warrants exclusion for symptoms of influenza. There is no state law that mandates school exclusion. During an influenza epidemic, the school superintendent and health officials may need to update the exclusion policy and reporting criteria. For information on the Communicable Reporting Rule and Laws, see Rule 410 IAC 1-2.5.

OUTBREAKS:

According to the Communicable Disease Reporting Rule Final_Rule_LSA_.pdf, an outbreak is defined as cases of disease occurring in a defined community, region, or particular population that exceeds what is normally expected. A baseline absenteeism rate should be established by the school. If the absenteeism rate of those exhibiting influenza-like illness (ILI) is found to be more than what is normally expected, the outbreak should be reported to the local health department.

For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

REPORTING SCHOOL ABSENTEEISM:

Unusual occurrence of any disease is to be reported immediately to the local health department. An unusual occurrence of influenza could be an unusual presentation (i.e., symptoms not consistent with typical flu illness) or the detection of influenza outside of normal influenza season. Typical influenza seasons occur from October through May, or MMWR weeks 40–20; however, influenza can and does circulate year-round. See Appendix D, "Reporting of Excessive Absenteeism," for guidelines on reporting school absenteeism greater than or equal to 20% to your local health department and to the IDOE School Attendance Officer. Reporting to the IDOE School Attendance Officer can be completed electronically via the reporting form for absenteeism over 20%.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Influenza (Flu)
  - When and How to Clean and Disinfect a Facility
  - Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools
  - Flu Resource Center
  - About Handwashing
- Indiana Department of Health (IDOH):
  - Influenza

MEASLES (RUBEOLA)

CLINICAL DESCRIPTION:

Measles is an extremely contagious viral respiratory illness. Early symptoms include high fever (usually over 101˚ degrees F), cough, runny nose (coryza) and conjunctivitis. Two to three days after symptoms begin, small white spots (Koplik spots) may appear in some individuals. About three to five days after symptoms begin, a maculopapular rash appears, usually beginning on the face/hairline and spreading downward over the entire body. Measles may cause serious complications, including ear infection, pneumonia and encephalitis. In some cases, measles may be fatal.

INCUBATION PERIOD:

The incubation period from exposure to prodromal symptoms is approximately 11-12 days. The incubation period from exposure to rash onset is usually about 14 days, ranging from seven to 21 days.

MODE OF TRANSMISSION:

Measles is transmitted by direct contact with airborne respiratory droplets. These droplets can remain infective for up to two hours in the air after an infectious person leaves an area.

PERIOD OF COMMUNICABILITY:

A person can spread measles four days prior to the appearance of the rash through four days following the appearance of the rash.

EXCLUSION AND REPORTING:

Whenever measles is strongly suspected or confirmed, the local health department should be notified **immediately**. Infected people are excluded from school and contact with other people outside the household for 4 days after appearance of the rash (with day of rash onset counted as day 0). According to the Communicable Disease Reporting Rule (410 IAC 1-2.5), students and staff who have not presented proof of immunity against measles are excluded until acceptable proof of immunity is presented, or in the case of medical or religious exemptions, until 21 days after the onset of the last reported measles case. Previously unvaccinated children who are vaccinated more than 72 hours after exposure are excluded until 21 days after last date of exposure. For information on laws and rules regarding measles, see the Communicable Disease Reporting Rule 410 IAC 1-2.5-118 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Vaccinate with measles-mumps-rubella (MMR) vaccine at 12-15 months of age and again at 4-6 years of age. Indiana school immunization requirements in English and Spanish can be found at https://www.in.gov/health/audiences/school-representatives/school-administrators-and-nurses/#School_Immunization_Requirements Check immunization records for all students and staff to ensure they have received age-appropriate measles-containing vaccine. To prevent transmission, identify nonimmune students (medical or religious exemptions) for possible exclusion.
- Inform staff and students when a case of measles has been identified. Exposed pregnant women or immunocompromised individuals should be tested for measles immunity, if unknown, and should consult their healthcare provider.
- Exposed persons without evidence of immunity to measles should consult their healthcare provider about receiving post-exposure prophylaxis (MMR within 72 hours of exposure or immunoglobulin [IG] within six days of exposure).

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. If an outbreak is suspected, contact your local health department. **For measles, one case constitutes an outbreak**. Any case or suspected case is to be **immediately** reported to the local health department and/or IDOH.

In a school with a measles outbreak, all students and all school personnel born in or after 1957 who cannot provide documentation that they have had two doses of a measles-containing vaccine on or after their first birthday or cannot provide other evidence of measles immunity (such as serologic testing) should be vaccinated. Persons who cannot readily provide documentation of measles immunity should be vaccinated or excluded from the school or other institution.

People receiving second doses, as well as previously unvaccinated people receiving their first dose as part of the outbreak control program, may be readmitted to school immediately, provided all without documentation of immunity have been excluded and vaccination occurred within 72 hours of exposure. People receiving their first dose for whom two doses are recommended must receive a second dose spaced 28 days apart from the first dose to continue to not be excluded should the outbreak persist. Those exempt from or who refuse measles vaccination should be excluded from the school, childcare or other institution until 21 days after the onset of rash in the last case of measles. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Measles
  - Measles Vaccination
  - Pink Book | Chapter 13: Measles
- Indiana Department of Health (IDOH):
  - Measles

MENINGOCOCCAL DISEASE (MENINGOCOCCAL MENINGITIS OR MENINGOCOCCEMIA)

CLINICAL DESCRIPTION:

Meningococcal meningitis is an acute inflammation of the lining of the brain and spinal cord caused by *Neisseria meningitidis* (meningococcus) bacteria. Symptoms include stiff neck, high fever, headache, nausea, vomiting and possibly a petechial or purpuric rash. Meningococcemia is a life-threatening bloodstream infection caused by *N. meningitidis*. Both meningococcal meningitis and meningococcemia are considered medical emergencies. Though meningococcal disease is commonly referred to as "bacterial meningitis," it is important to remember that many bacteria can cause meningitis, making appropriate testing critical to case management.

INCUBATION PERIOD:

The incubation period (the time between exposure to disease and development of symptoms) is short, ranging from one to 10 days, most commonly three to four days.

MODE OF TRANSMISSION:

Not everyone exposed to meningococcal bacteria will develop disease. Transmission, when it does occur, is usually person-to-person by close contact with respiratory droplets from the nose and throat of infected people. Saliva exchange is the most common method of transmission. Transmission is highest among household contacts. About 5% to 10% of the general population has asymptomatic carriage of meningococcal bacteria at any given time.

PERIOD OF COMMUNICABILITY:

A person who is infected with *N. meningitidis* or a carrier can transmit the bacteria until bacteria are no longer present in discharges from the nose and mouth. An infected person is no longer contagious after 24 hours following the initiation of appropriate antibiotic therapy.

EXCLUSION/REPORTING:

Patients with invasive meningococcal disease should be isolated until twenty-four (24) hours of effective antimicrobial therapy has been completed. Almost all cases of meningococcal diseases are hospitalized and treated with antibiotics. **All cases and suspect cases must be immediately reported to the local health department upon first suspicion of disease without waiting for final lab results.** High-risk close contacts of cases should be given prophylactic antibiotics to prevent possible infections; the local health department should be consulted to determine who should receive prophylaxis. Asymptomatic contacts do not need to be excluded from school. For information on laws and rules regarding meningococcal disease, see the Communicable Disease Reporting Rule, 410 IAC 1-2.5-119, at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Immediately contact a caregiver if the student develops classic meningeal symptoms (fever, severe headache and stiff neck) and provide education concerning urgency of receiving medical evaluation.
- Prophylactic antibiotic treatment is needed for high-risk close contacts and family members and should be started within 24 hours of identification of a confirmed diagnosis of meningococcal disease.
- Prophylactic antibiotic treatment is not recommended for school contacts in most circumstances—consult local or state health authorities for guidance regarding who should receive prophylaxis.
- Consider sending a letter to parents as determined to be necessary. Letter templates are available from IDOH upon request.
- All children should be vaccinated with meningococcal conjugate vaccine (MCV4) at entry to sixth grade (11-12 years of age). School Immunization Requirements for Indiana can be found at https://www.in.gov/health/immunization/parents-and-patients/.
- The CDC recommends that all teens also receive a booster dose of MCV4 at age 16 years. For those who receive the first dose at age 13-15 years, a one-time booster dose should be administered, preferably at age 16-18 years, before the peak in increased risk. Adolescents who receive their first dose of MCV4 at or after age 16 years do not need a booster dose. Guidance can be found at https://www.cdc.gov/meningococcal/vaccines/index.html.
- Adolescents may also receive a dose of serogroup B meningococcal vaccine, preferably at age 16 - 18 years. Certain adolescents and young adults should receive serogroup B vaccine if they have a complement component deficiency, are taking a complement inhibitor (e.g., Soliris or Ultomiris), have a damaged or removed spleen or are at risk as part of an outbreak population.

- Schools are required to notify parents each year about meningococcal disease and the availability of meningococcal vaccine. See IC 20-30-5-18 at https://iga.in.gov/laws/2023/ic/titles/20#20-30-5-18.
- In 2017, the Indiana legislature passed a bill that will add meningococcal vaccination to the required immunizations for incoming college students. This law became effective July 1, 2018. See House Enrolled Act No. 1069 at https://iga.in.gov/legislative/2017/bills/house/1069.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. **An outbreak of meningococcal disease occurs when multiple cases of the same serogroup occur in a short period of time. Meningococcal disease outbreaks are rare; only about two to three of every 100 cases of meningococcal disease in the United States are related to outbreaks.** If an outbreak or single case of meningococcal disease is suspected, notify your local health department immediately. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Meningitis
  - Meningococcal Disease
  - Meningococcal Vaccination
  - Prevention and Control of Meningococcal Disease – Recommendations of the Advisory Committee on Immunization Practices (ACIP)
  - Pink Book | Chapter 14: Meningococcal Disease
- Indiana Department of Health (IDOH):
  - Meningococcal Disease

MUMPS

CLINICAL DESCRIPTION:

Mumps is a highly contagious viral illness. The main manifestation of a mumps infection is painful inflammation of the parotid or other salivary glands that lie just above the back angle of the jaw and below the ear. Involvement can be unilateral (one side of neck) or bilateral (both side of the neck). Infected people often have fever, headache and mild respiratory symptoms. Some males may have testicular pain and swelling. Symptoms usually resolve after seven to 10 days. Some people who are infected with mumps don't show clinical signs of salivary gland swelling; they may be asymptomatic or the illness may manifest primarily as a respiratory tract infection. Vaccinated individuals may have mild or atypical symptoms.

INCUBATION PERIOD:

The incubation period ranges from 12 to 25 days, averaging 16-18 days.

MODE OF TRANSMISSION:

Transmission is by droplet spread and by direct contact with saliva from an infected person.

PERIOD OF COMMUNICABILITY:

A person can spread mumps two days prior to the onset of parotid swelling through five days after the onset of swelling.

EXCLUSION/REPORTING:

Whenever mumps is strongly suspected or confirmed, the local health department should be notified within one working day. According to the Indiana Communicable Disease Reporting Rule, infected people are excluded from school and contact with people outside the household for five days after onset of swelling. This would include infected people with negative laboratory results without another etiology identified. During outbreaks, exposed individuals without evidence of immunity are excluded from schools, daycares, workplaces and other public gatherings from days nine to 25 after the date of last exposure to prevent spread to other individuals. For information on laws and rules regarding mumps, see the Communicable Disease Reporting Rule 410 IAC 1-2.5-120 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

Vaccinate with mumps vaccine at 12-15 months of age and again at 4-6 years of age. Indiana school immunization requirements in English and Spanish can be found at https://www.in.gov/health/immunization/parents-and-patients/.

If a case is suspected:

- Call a caregiver of the suspected case to ensure the child has been evaluated by a healthcare provider. Upon doctor diagnosis or laboratory confirmation, check immunization records for all students and staff to ensure they have received two doses of a mumps-containing vaccine. To prevent transmission, identify non-immune students (medical or religious exemptions) for possible exclusion. No exclusion is recommended for non-immune contacts until an outbreak (three cases linked in place and time, ideally with at least one of the cases being lab-confirmed) is declared.
- Consult with the local or state health department to report suspected cases of mumps.

Mumps during the first trimester of pregnancy may be associated with an increased rate of spontaneous abortion. Exposed pregnant women should be tested for mumps immunity, if unknown, and should contact their healthcare provider.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. For mumps, three epidemiologically linked cases constitute an outbreak. At least one case should be laboratory-confirmed or linked to a laboratory-confirmed case. If an outbreak is suspected, contact your local health department and/or IDOH. Any case or suspected case must be promptly reported to the local health department and/or IDOH.

To assist with control of mumps outbreaks in schools, students and staff without evidence of immunity (birth in the U.S. before 1957, documentation of age-appropriate vaccination, lab evidence of prior infection or lab evidence of immunity) should be excluded from days nine to 25 after last date of exposure. Excluded students can be readmitted immediately after they are vaccinated. Students who have a history of one dose of MMR vaccination should receive their second vaccine dose and be allowed to remain in school. In some cases, a third dose of MMR vaccine may be recommended for outbreak control. Students who have been exempted from mumps vaccination for medical, religious or other reasons should be excluded until the 26th day after last exposure. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Mumps
  - Mumps Vaccination
  - Pink Book | Chapter 15: Mumps
- Indiana Department of Health (IDOH):
  - Mumps (Infectious Parotitis)

PERTUSSIS (WHOOPING COUGH)

CLINICAL DESCRIPTION:

Pertussis is a respiratory infection caused by *Bordetella pertussis* bacteria. The disease typically begins with mild upper respiratory symptoms similar to the common cold. This stage lasts one to two weeks. In the next stage, patients may develop rapid, violent, and uncontrolled coughing fits (paroxysmal cough). Some people may experience vomiting or exhaustion following paroxysms. In young children, coughs may be followed by a "whooping" sound as the child inhales. "Whooping" does not occur in all children or adults. Some people, particularly infants, may struggle to breathe or experience apnea or cyanosis. The paroxysmal stage lasts one to six weeks, followed by a recovery phase of gradually diminishing coughing that can last from weeks to months. Vaccinated or partially vaccinated persons generally have less severe symptoms. A related bacterium, *Bordetella parapertussis*, is not reportable but can cause similar but less infectious and milder illness, making appropriate laboratory testing of suspected cases critical.

INCUBATION PERIOD:

The incubation period ranges from four to 21 days but averages seven to 10 days.

MODE OF TRANSMISSION:

Transmission occurs primarily through contact with infectious respiratory secretions. Droplet contact and close person-to-person contact are the modes of transmission.

PERIOD OF COMMUNICABILITY:

Pertussis is communicable from the time of symptom onset through three weeks after the onset of paroxysmal cough. When treated with an appropriate antibiotic, the period of communicability ends after completion of five full days of antibiotic therapy; however, symptoms may remain even after the antibiotic regimen has been completed.

EXCLUSION/REPORTING:

Whenever pertussis is strongly suspected or confirmed, notify the local health department within one working day. People with pertussis are excluded from school and contact with those outside the household until they have completed at least five days of effective treatment (azithromycin, erythromycin, clarithromycin or trimethoprim/sulfamethoxazole). Those with pertussis who do not receive treatment are excluded from schools, daycare centers and public gatherings for 21 days after cough onset. No exclusion of unimmunized or under-immunized contacts is recommended for pertussis, even during outbreaks. For information on laws and rules regarding pertussis, see the Communicable Disease Reporting Rule 410 IAC 1-2.5-95 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Safe and effective vaccines are available to prevent pertussis. Students and staff should receive the recommended doses of DTaP or Tdap vaccines to build and boost immunity against pertussis infections. Indiana school immunization requirements can be found at: https://www.in.gov/health/files/2024-25-School-Immunization-Requirements.pdf
- Pregnant women are recommended to receive a dose of Tdap vaccine during the final trimester of every pregnancy.
- Hand hygiene and respiratory hygiene (covering coughs and sneezes and promptly disposing used tissues) should be reviewed and practiced.
- Appropriate antibiotics can reduce the communicability of disease among individuals with pertussis.
- Household contacts and some high-risk close contacts should receive antibiotic post-exposure prophylaxis per CDC guidance found here: https://www.cdc.gov/pertussis/php/postexposure-prophylaxis/?CDC_AAref_Val=https://www.cdc.gov/pertussis/pep.html
- Classroom-wide prophylaxis is not usually recommended, and prophylaxis is not generally recommended for close contacts who are not among high-risk groups defined by the CDC. Inform high-risk students and staff who would have had direct, face-to-face contact or prolonged close contact (e.g., within 3 feet) with a case when a case of pertussis has been identified. Consult IDOH and/or your local health department for assistance with identifying and notifying close contacts.
- Letters or other broad notifications of the occurrence of pertussis cases within the school may be considered on a case-by-case basis at the discretion of the local health department and are usually recommended when multiple cases have occurred. Consult your local health department and/or IDOH regarding any planned communications.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. If an outbreak is suspected, contact your local health department. No additional exclusions are recommended once an outbreak is declared. Any case or suspected case must be reported within one

working day to the local health department and/or IDOH. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Whooping Cough (Pertussis)
  - Guidelines for Postexposure Antimicrobial Prophylaxis
  - Pink Book | Chapter 16: Pertussis
- Indiana Department of Health (IDOH):
  - Pertussis (Whooping Cough)

INVASIVE PNEUMOCOCCAL DISEASE

CLINICAL DESCRIPTION:

Pneumococcal infections are caused by *Streptococcus pneumoniae* bacteria. These infections can present as pneumonia, meningitis, bacteremia, as well as sinus and ear infections. Symptoms can include chills, fever, headache, earache, pain in the chest and cough. Only cases of invasive pneumococcal disease are reportable. Invasive means the bacteria was isolated from blood, cerebrospinal fluid, joint fluid or other normally sterile sites. Urine, sputum, broncho-alveolar lavage, eye/nose/throat, etc. are not considered sterile specimen sites.

INCUBATION PERIOD:

The incubation period varies by infection type but can be as little as one to three days.

MODE OF TRANSMISSION:

Transmission occurs primarily through contact with nose or throat secretions from an infected person. It is not spread by casual contact or by simply breathing the air around an infected person.

PERIOD OF COMMUNICABILITY:

A person can spread the bacteria as long as the organism is in the respiratory tract or until 24 hours after the initiation of antibiotic therapy.

EXCLUSION/REPORTING:

There are no specific exclusion provisions found in Indiana communicable disease laws or rules for pneumococcal disease. For information on laws and rules regarding pneumococcal disease, see the Communicable Disease Rule 410 IAC 1-2.5-134 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf

PREVENTION/CARE:

- Vaccinate all children with the 13-valent vaccine (PCV13) or 15-valent vaccine (PCV15) at two, four and six months with a booster at 12-15 months according to the routine childhood vaccination schedule.

- Adults (e.g., staff) ages 65 and or older who have not previously received pneumococcal conjugate vaccine should receive one dose of PCV20 or one does of PCV15 followed by one dose of PPSV23 one year later.
- Additional doses of pneumococcal vaccine may be recommended for children and adults with certain medical conditions. Detailed vaccination recommendations are available at https://www.cdc.gov/vaccines/vpd/pneumo/hcp/recommendations.html
- Enforce handwashing, cough/sneezing hygiene and disposal of used tissues.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of pneumococcal disease if the number of cases is more than what is normally experienced in your school or occurs with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Pneumococcal Disease
  - Pneumococcal Vaccination
- Indiana Department of Health (IDOH):
  - Pneumococcal Infections

RUBELLA (GERMAN MEASLES)

CLINICAL DESCRIPTION:

Rubella is a mild rash illness caused by the rubella virus. Rubella is characterized by a mild maculopapular rash that typically begins on the face and spreads down the entire body, lasting an average of three days. It may occasionally be itchy and may be more prominent after a hot shower or bath. Other symptoms can include low-grade fever, joint pain (in adolescents and adults) and enlarged and tender lymph nodes at the back of the neck; however, children often experience no other symptoms than the rash. About 25% to 50% of rubella infections are asymptomatic. Rubella is the cause of significant congenital defects in infants whose mothers are exposed during pregnancy.

INCUBATION PERIOD:

The incubation period can be anywhere from 12-23 days, though it is usually 14 days on average.

MODE OF TRANSMISSION:

Transmission occurs through direct, or droplet contact with infectious nasopharyngeal secretions.

PERIOD OF COMMUNICABILITY:

An infected person is contagious from seven days prior to the appearance of the rash through seven days after the rash appears.

EXCLUSION/REPORTING:

Whenever rubella is strongly suspected or confirmed, notify the local health department immediately. Infected people are excluded from school and contact with other individuals outside the household for seven days after the onset of rash. Students and staff who have not presented proof of immunity against rubella are excluded until acceptable proof of immunity is presented, or in the case of medical or religious exemptions, until 23 days after the onset of the last reported rubella case. Unvaccinated people who receive a first or second dose of MMR vaccine as part of the outbreak control may be immediately readmitted to school if all persons without documentation of immunity have been excluded. For information on laws and rules regarding rubella, see the Communicable Disease Reporting Rule 410 IAC 1-2.5-129 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Vaccinate with rubella vaccine at 12-15 months of age and again at four to six years of age. Indiana school immunization requirements can be found at: https://www.in.gov/health/files/2024-25-School-Immunization-Requirements.pdf
- If given as a single antigen vaccine, only one dose of rubella is required
- Check immunization records for all students and staff to ensure they have received one or two doses of a rubella-containing vaccine. To prevent transmission, identify non-immune students (medical or religious exemptions) for possible exclusion.
- Whenever possible, ask students and staff you see about travel history and keep a list of students who may attend your school(s) as part of an exchange or international program. Most cases in the United States are imported or associated with travel to countries where rubella is common.
- Inform high-risk people within the school when a case of rubella has been identified. Exposed pregnant women and immunocompromised individuals should be tested for rubella immunity, if unknown, and should consult their healthcare provider.
- Call the caregiver of a suspect case to ensure the child has been evaluated by a healthcare provider

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. For rubella, one case constitutes an outbreak. If an outbreak is suspected, contact your local health department. Any case or suspected case must be immediately reported to the local health department and/or IDOH.

All women of childbearing age who are contacts of a person with a suspected or confirmed case should have their pregnancy status determined. If a pregnant woman is infected with rubella, immediate medical consultation is necessary. If a pregnant woman lacks laboratory evidence of rubella immunity, precautions should be taken to prevent any type of exposure to those infected with rubella. For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Rubella
  - Pink Book | Chapter 20: Rubella
- Indiana Department of Health (IDOH):
  - Rubella

TETANUS

CLINICAL DESCRIPTION:

Tetanus is a bacterial illness caused by *Clostridium tetani*. The bacteria typically enter the body through a wound and produce a poison (toxin) that causes headache, fever, muscle stiffness and painful muscle contractions. Another name for tetanus is "lockjaw" because it often causes a person's neck and jaw muscles to lock, making it hard to open the mouth or swallow. Complications of tetanus can include broken bones (from the force of muscle contractions), pneumonia and other bacterial infections, breathing difficulty, pulmonary embolism, and in rare cases, death.

INCUBATION PERIOD:

The incubation period is normally about eight days, with a range of one to 21 days.

MODE OF TRANSMISSION:

Transmission occurs primarily through contact with soil containing *C. tetani* bacteria. These bacteria are naturally occurring in soil and are generally introduced to the body through open wounds or cuts on the feet or hands during outdoor activities.

PERIOD OF COMMUNICABILITY:

Tetanus is not communicable from person to person. As tetanus bacteria are naturally occurring in soil, an individual may be infected during any period of contact with broken skin or mucous membranes with contaminated soil.

EXCLUSION/REPORTING:

Whenever tetanus is strongly suspected or confirmed, notify the local health department within one working day. There are no specific exclusion provisions found in Indiana communicable disease laws or rules for tetanus; however, the environmental exposure source should be identified if possible. For information on laws and rules regarding tetanus, see the Communicable Disease Rule 410 IAC 1-2.5 Sec. 138 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Safe and effective vaccines are available to prevent tetanus. Students and staff should receive the recommended doses of DTaP or Tdap vaccines to build and boost immunity against tetanus infections. Indiana school immunization requirements can be found at: https://www.in.gov/health/files/2024-25-School-Immunization-Requirements.pdf

- It is recommended that pregnant women receive a dose of Tdap vaccine during the final trimester of each pregnancy.
- Note that because *C. tetani* bacteria are naturally present in the environment, laboratory testing may provide false positive results. Even with a positive culture available, this diagnosis is primarily based on the clinical presentation.

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a community, region or population at a rate more than that which is normally expected. The local health department should be notified of suspected and/or documented cases of tetanus if the number of cases is more than what is normally experienced in your school or occur with a common connection (same class, sports team, etc.). For additional information and recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - https://www.cdc.gov/pinkbook/hcp/table-of-contents/chapter-21-tetanus.html
  - https://www.cdc.gov/tetanus/index.html
- Indiana Department of Health:
  - https://www.in.gov/health/idepd/diseases-and-conditions-resource-page/tetanus/

VARICELLA (CHICKENPOX)

CLINICAL DESCRIPTION:

Varicella (chickenpox) is a viral illness that is very contagious and is caused by the varicella zoster virus. Early symptoms can include fever and fatigue, which begin about 10 - 21 days after exposure. These symptoms are followed by the appearance of flat, red spots which progress to an itchy rash with fluid-filled vesicles characteristic of the disease. Lesions appear in crops over the course of several days, and lesions will be present in several stages of development. As varicella vaccine coverage increases, most cases are now breakthrough cases, which are often less severe (less than 50 lesions and may not progress to the vesicular stage). Varicella can cause serious complications including pneumonia, encephalitis, secondary bacterial infections, and even death.

INCUBATION PERIOD:

The incubation period is usually 14-16 days but can be anywhere between 10 and 21 days.

MODE OF TRANSMISSION:

Transmission occurs primarily through contact with infectious respiratory secretions and aerosolized lesion fluid. Direct contact with open vesicles can also transmit infection. Persons with shingles (herpes zoster), which is a reactivation of the varicella zoster virus, can spread the virus to nonimmune persons through direct contact with lesions, which could cause primary varicella infection in these individuals (i.e., chicken pox, not shingles).

PERIOD OF COMMUNICABILITY:

A person can spread the varicella zoster virus one to two days before the onset of the rash until all the lesions have crusted over, typically four to seven days. People who do not develop vesicles are considered contagious until no new lesions have appeared over a 24-hour period.

EXCLUSION/REPORTING:

Whenever varicella is strongly suspected or confirmed, notify the local health department within one working day. Infected people are to be excluded from schools and daycare centers, public gatherings and contact with susceptible people until vesicles crust over, or, in cases of mild disease without vesicles, until no new lesions appear within a 24-hour period. During an outbreak, susceptible exposed contacts of infected cases should be excluded from school and daycare centers, work settings or other public gatherings until adequate proof of immunity can be provided or until 21 days after rash onset of the last identified case. Adequate proof of immunity for students and staff includes birth in the U.S. before 1980, documentation of age-appropriate varicella vaccine, provider-verified history of varicella disease, laboratory confirmation of immunity or laboratory confirmation of disease. Birth before 1980 is not sufficient proof of immunity for healthcare workers, immunocompromised individuals or pregnant women. Appropriate laboratory testing should be completed for all suspected "breakthrough" cases of varicella and all suspected varicella-related hospitalizations. For more information, please see the Communicable Disease Reporting Rule 410 IAC 1-2.5-145 at https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf.

PREVENTION/CARE:

- Vaccinate with a single dose of live, attenuated varicella vaccine at 12-15 months of age and revaccinate with a second dose at 4-6 years of age. Indiana school immunization requirements in English and Spanish can be found at https://www.in.gov/health/immunization/school-resources/#Immunizations.
- Review immunization records or history of disease of all students and staff to identify susceptible individuals or those who have received only one dose of varicella vaccine
- Varicella vaccine can be administered within five days of an exposure to prevent or modify the severity of disease
- Promptly report all suspected individual cases and outbreaks to the local health department. Laboratory testing is strongly recommended during outbreak situations.
- Notify high-risk individuals of exposure. Pregnant women and immunocompromised individuals should be advised to follow up with their healthcare provider.
- Consider sending a letter to parents as necessary if cases are identified in the school. Sample letters are available from IDOH upon request. (See Appendix A for more information.)

OUTBREAKS:

According to the Communicable Disease Reporting Rule (410 IAC 1-2.5-54), the definition of an outbreak is cases of disease occurring in a defined community, region or population at a rate more than that which is normally expected. An outbreak of varicella is defined as five or more cases that are epidemiologically linked in those younger than 13 years of age or three or more epidemiologically linked cases in people 13 years of age and older. Cases must reside in at least two separate households for the varicella outbreak definition to be met. Any case or suspected case of varicella is to be reported within one working day to the local health department and/or the IDOH, and suspected outbreaks should be reported immediately. For additional information and

recommendations regarding the preparation for and the management of an outbreak situation in a school setting, see Appendix A: Managing an Infectious Disease Outbreak in a School Setting.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - About Chickenpox
  - Chickenpox Vaccination
  - Pink Book | Chapter 22: Varicella
- Indiana Department of Health (IDOH):
  - Chickenpox (Varicella)

Communicable Disease Summary Tables

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Aseptic (Viral) Meningitis Refer to page 45	Fever, headache, stiff neck, photophobia, vomiting and fatigue	Varies depending on virus. For enteroviral meningitis, three to six days	Person-to-person by respiratory droplets and direct contact with nose and throat discharges	Varies depending on virus	Patients are generally too sick to attend school and can return when recovered. Other exclusion criteria may apply depending on the virus involved.	Handwashing, cough/sneeze hygiene and avoiding direct contact with nasal and throat discharges
Bed Bugs Refer to page 46	Presence of bed bug nymphs or adults on student, on student belongings or in the classroom	Approximately one month to develop from egg to adult; school environment is not an ideal environment for this development due to lack of hosts at night	Traveling on student belongings or occasionally clothing	May be transferred at any time if present	Exclusion of students is generally not recommended; non-reportable condition	Parent education, separation of student belongings from others, visual inspection of student and belongings upon arrival to school until home situation is remedied

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Campylobacteriosis  Refer to page 33	Diarrhea (sometimes bloody), stomach cramps, fever, nausea and vomiting	Two to five days	Foodborne, drinking untreated water and by contact with animals	While symptomatic	Exclude while symptomatic	Handwashing and food safety
Clostridioides difficile Infections: CDI (C. difficile) Refer to page 34	Watery diarrhea, fever, abdominal tenderness, nausea, loss of appetite	Unknown	Fecal-oral	Weeks or months	Duration of *C. difficile* diarrhea	Meticulous hand hygiene (soap and water) after using the bathroom and before eating and disinfection of surfaces with sporicidal cleaner
Conjunctivitis (Pink Eye) Refer to page 16	Redness of eye involving tearing, irritation, swelling and discharge	Bacterial: one to three days Viral: 12 hours - three days	Contact with discharge from conjunctivae or upper respiratory tract of infected persons; fingers and inanimate objects can also be sources of transmission	Possibly up to 14 days but depending on cause	Exclusion recommended until examination by physician and then approved for readmission	Use precautions in handling eye discharge and handwashing; avoid touching/rubbing the eyes and face

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Cryptosporidiosis  Refer to page 35	Watery diarrhea, stomach cramps, dehydration, nausea, vomiting and weight loss	Seven days (range of one to 12 days)	Fecal-oral	While shedding, up to several months	Exclude while symptomatic	Handwashing and water precautions

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Diphtheria  Refer to page 67	Respiratory diphtheria can present with mild fever, sore throat, weakness, swollen glands in neck, and a gray membrane on the throat. Diphtheria can also cause open sores and skin lesions	One to 10 days, usually two to five days	Contact with respiratory droplets or direct contact with open skin lesions and sores	Two to six weeks (without treatment) People are usually no longer contagious after completing 48 hours of antibiotic therapy	***Index Case***: Excluded until two cultures 24 hours apart are negative. ***Contacts*:** Observe, culture and treat	Vaccinations up-to-date for DTaP or Tdap
Erythema Infectiosum (Fifth Disease) Refer to page 17	Illness is typically mild. Initial symptoms may include fever, headache, runny nose, red "slapped cheek" rash on the face with "lacy" rash on trunk and limbs	Normally four to 14 days, but up to 21 days	Contact with infectious upper respiratory secretions	Most contagious when cold-like symptoms are present before rash onset	Not recommended unless child has fever	Handwashing, cough/sneeze hygiene, regular disinfection of surfaces, and proper disposal of used items
***E. coli* infection** (shiga-toxin producing and Hemolytic uremic syndrome [HUS])  Refer to page 37	Bloody or non-bloody diarrhea, stomach cramps, low-grade fever, nausea, weight loss and vomiting	Three to four days (range of two to 10 days)	Fecal-oral or foodborne	While shedding, up to three weeks	Exclude until 24 hours after symptoms end	Handwashing and food safety

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Giardiasis  Refer to page 38	Diarrhea, gas; greasy, foul-smelling stools that tend to float; bloating, stomach cramps or pain, upset stomach, nausea and dehydration	Seven to 10 days (range of three to 25 days)	Fecal-oral	While shedding, up to several months	Exclude until 24 hours after symptoms end	Handwashing and water precautions
Hand, Foot and Mouth Disease (Vesicular Stomatitis with exanthema) Refer to page 18	Fever, malaise, sore throat and red blister spots that turn into ulcers in the mouth; a rash with red spots can develop on the palms of hands, soles of the feet, knees, elbows, buttocks or genital area	Three to five days	Fecal-oral or direct contact with infectious respiratory secretions	People with HFMD are usually most contagious during the first week they are sick; sometimes people can spread the virus to others for days or weeks after symptoms resolve or if they have no symptoms at all	Consider exclusion for children who are febrile, those with oral blisters who drool or have lesions on hands that are weeping, and children who do not feel well enough to participate in classroom activities	Handwashing and avoiding direct contact with nasal and throat discharges; using cough/sneeze hygiene; cleaning and disinfection of frequently touched surfaces
Hepatitis A  Refer to page 39	Diarrhea, nausea, vomiting, upset stomach, fatigue, stomach cramps, fever, dark urine, pale, clay-colored stool, loss of appetite, joint pain and jaundice	28-30 days (range of 15 - 50 days)	Fecal-oral, person-to-person or by eating contaminated food or drink	14 days before and seven days after the onset of jaundice, or if jaundice does not occur, seven days before and 14 days after symptom onset	Exclude until after the defined infectious period	Hepatitis A vaccine and handwashing

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Hepatitis B  Refer to page 10	Malaise, fever anorexia, nausea, vomiting, abdominal pain, dark urine, clay-colored stools, joint pain and jaundice	60-90 days (range 60-150 days) after exposure	Direct contact with infected person's blood or body fluids	One to two months before and after the onset of symptoms	None	Hepatitis B vaccination and universal precautions used when there is contact with blood and other body fluids containing blood, semen or vaginal secretions
Hepatitis C  Refer to page 12	Nausea, vomiting, weight loss, anorexia, fever, fatigue, dark urine, pale stool, joint pain and jaundice	Two weeks to six months	Direct contact with infected person's blood or bodily fluids	At least one week before onset of symptoms and for the rest of their lifetime	None	Universal precautions used when there is contact with blood and other body fluids containing blood, semen or vaginal secretions
HIV/AIDS  Human immunodeficiency virus acquired immunodeficiency syndrome Refer to page 13	Initially viral flu-like symptoms; many years later (up to 10 years) swollen lymph nodes, fatigue, fever, chills, rash, night sweats, muscle aches, sore throat, unexplained weight loss, mouth ulcers and other co-infections	Variable, one week to 10 years or longer	Transmission of HIV-infected blood, semen, vaginal secretions or breast milk to an uninfected person's broken skin or mucous membranes in enough quantity to allow for the replication of the virus	Shortly after acquisition of the virus and for the rest of their life	School children with HIV must be allowed to attend school and may only be excluded if the provision is found in IC16-41-9-3 (i.e., a disease that is transmissible through normal school contacts or poses a substantial threat to health and safety of school community)	Education beginning in elementary school, supportive faculty, universal precautions used when there is contact with blood and other body fluids containing blood, semen or vaginal secretions

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Human Papillomavirus (HPV) Refer to page 56 and 68	Most infections are asymptomatic; may develop warts (genital and/or non-genital); cancer may develop decades later	Unknown, but estimated to be three months to several years	Direct contact, usually sexual, with infected person	Unknown, but thought to be communicable during acute and persistent infection	None	Vaccination (two vaccines are licensed); Gardasil is licensed for people ages 9 - 26 years; since late 2016, only Gardasil-9 (9vHPV) is distributed in the U.S., safe sex practices
Impetigo Refer to page 20	Skin lesions (red, itchy sores that break open and leak a clear fluid or pus for a few days then form a honey-colored crust); infection can occur anywhere on the body, but is most common around the nose, mouth or extremities	One to three days for streptococcal infection and four to 10 days for staphylococcal infection	Direct contact with secretions from lesions	Until 24 hours after starting topical or oral antibiotic therapy or in untreated cases, as long as lesions are draining	People diagnosed with impetigo can return to work, school or daycare if they are 24 hours into the course of their antibiotic treatment and keep all sores on exposed skin covered	Wash your hands and perform appropriate personal hygiene, cover draining lesions and wear disposable gloves when applying treatment to infected skin

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Influenza Refer to page 70	Fever greater than 100 degrees F, chills, headache, tiredness, cough, sore throat, runny or stuffy nose and muscle aches; nausea, vomiting and diarrhea also can occur more commonly in children	One (1) to four (4) days	Person-to-person by direct contact with infected secretions or via large or small droplet aerosols	One (1) day prior to symptoms through Five (5) days from clinical onset	Exclusion of the student should be based on the condition of the child and if there is a school policy that warrants exclusion for symptoms of influenza	Immunizations are available for most students and adults unless contraindicated; use good cough/sneeze etiquette and hand hygiene practices, discard tissues immediately and use hand sanitizer or soap/water to wash hands
Measles  Refer to page 71	Fever, runny nose, cough, conjunctivitis, maculopapular rash starting three to five days after symptom onset usually beginning on the face near the hairline and spreading across the entire body	Average of 11–12 days from exposure to prodromal symptoms and 14 days to rash onset (range: seven to 21 days)	Airborne respiratory droplets	Four days before rash onset through four days after rash onset	***Index Case*:** Excluded through four days after rash onset ***Contacts:*** Contacts who are not immunized are excluded until proof of immunity is shown, or if exempted, 21 days after last reported case	**Vaccine Available:** Two doses of measles-containing vaccine (MMR) are recommended for school-aged children and adults

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Meningococcal Disease  Refer to page 73	**Meningitis:** Fever, severe headache, stiff neck, nausea, vomiting, photophobia, confusion **Meningococcemia:** Fever; fatigue; vomiting; diarrhea; cold hands and feet; severe aches and pains; rapid breathing; petechial or purpuric rash	One to 10 days, commonly three to four days	Direct contact with saliva or respiratory droplets	Until completion of 24 hours of appropriate antibiotic therapy	None	**Vaccine Available:** ACIP recommends routine vaccination of persons with quadrivalent meningococcal conjugate vaccine at age 11 or 12 years, with a booster dose at age 16 years; it is recommended that adolescents also receive meningococcal B vaccine at ages 16-18 years
Mononucleosis (Epstein-Barr Virus) Refer to page 48	Fever, exudative pharyngitis and swollen glands	Four to six weeks	Direct contact with bodily fluids; especially saliva of infected person	Indeterminate, could be many months after infection and when reactivates	None	Good personal hygiene and avoiding saliva-sharing activities

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Methicillin Resistant *Staphylococcus aureus* (MRSA) Refer to page 21	Skin infection: abscesses, boils and rashes	Variable and indefinite	Direct contact with infected person or inanimate object	Wound drainage very infectious	Yes, if recommended by HCP or if drainage cannot be covered or contained with a dry covering	Handwashing, open areas covered, avoid contact with others' drainage, do not share personal hygiene items
Mumps R Refer to page 75	Swelling and pain of the parotid gland, fever, and mild upper respiratory symptoms	16-18 days (range of 12-25 days)	Direct contact with saliva or respiratory droplets	Two days before through five days after the onset of parotitis	***Index case:*** Exclude for five days following the onset of parotitis ***Contacts***: No exclusions for contacts in non-outbreak situations; in outbreaks, exclude susceptible contacts until proof of immunity is provided or from the ninth to the 25th day after exposure	**Vaccine Available:** Two doses of mumps-containing vaccine, (MMR) are recommended for school-aged children and adults; use cough/sneeze hygiene

Disease/ Condition	**Signs/ Symptoms**	**Incubation Period**	**Mode of Transmission**	**Period of Communicability**	**Exclusion/ Attendance**	**Prevention**
***Norovirus* infection** Refer to page 41	Diarrhea (sometimes watery), stomach cramps, nausea, vomiting, muscle aches and fatigue	24-48 hours (range of 12-72 hours)	Fecal-oral	While shedding, up to 72 hours after symptoms cease	Exclude until 24 hours after symptoms end	Hand washing
Pediculosis (Lice) Refer to page 24	Main symptom is itching of scalp; lice (or eggs) can be identified by close examination of scalp	Eggs hatch in a week with resultant lice able to multiply within eight to 10 days; adult louse lives 20-30 days	Direct contact with person who has live infestation or sharing personal belongings that are harboring lice (i.e., hats, scarves)	As long as live lice are present or eggs in hair are within ¼ inch of scalp	Exclusion of students is not generally recommended; non-reportable condition	Inform parents of infestations and proper control measures for home elimination
Disease/ Condition	**Signs/ Symptoms**	**Incubation Period**	**Mode of Transmission**	**Period of Communicability**	**Exclusion/ Attendance**	**Prevention**

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Pertussis (Whooping Cough)  Refer to page 76	Initial cold-like symptoms, leading to a progressive cough that violent coughing fits, may be followed by a "whoop," exhaustion, and post-tussive vomiting. Some patients may experience apnea or cyanosis.	Seven to 10 days (range of four to 21 days)	Direct contact with infectious respiratory secretions	From onset of symptoms through five days of appropriate antibiotic therapy If not on antibiotics, 21 days from the onset of the cough	**Symptomatic Index case:** Exclude for five days while receiving appropriate antibiotic therapy or through 21 days after cough onset if not treated. **Symptomatic Contacts of a Confirmed Case:** Exclude for five days while receiving antibiotic therapy Asymptomatic Direct Contacts: Do not exclude asymptomatic contacts; high-risk contacts should receive prophylaxis per CDC guidance	**Vaccine Available:** Age-appropriate vaccination: DTaP, Tdap Antibiotic prophylaxis for high-risk close contacts per CDC guidance

***Norovirus* infection** Refer to page 41	Diarrhea (sometimes watery), stomach cramps, nausea, vomiting, muscle aches and fatigue	24-48 hours (range of 12-72 hours)	Fecal-oral	While shedding, up to 72 hours after symptoms cease	Exclude until 24 hours after symptoms end	Handwashing
Pinworms Refer to page 49	Perianal itching and disturbed sleep	One to two months or longer	Fecal-oral route and indirectly through clothing, bedding, food or other articles (including toilet seats) contaminated with parasite eggs	As long as gravid females discharge eggs on perianal skin; eggs remain infective in an indoor environment for about two weeks	Nonapplicable	Handwashing
Invasive Pneumococcal Disease  Refer to page 79	Fever, chills, cough, pain in the chest and disorientation	Normally one to three days	Direct contact with the nose and throat secretions of an infected person	Until after 24 hours of antibiotic therapy	Nonapplicable	**Vaccine Available:** Age-appropriate vaccination Proper hand washing; use cough/sneeze hygiene and tissue disposal
Disease/ Condition	**Signs/ Symptoms**	**Incubation Period**	**Mode of Transmission**	**Period of Communicability**	**Exclusion/ Attendance**	**Prevention**

Ringworm Refer to page 26	Small red bump or papule that spreads outward, taking on the appearance of a red scaly outer ring with a clear center	Depends on type: *Tinea capitis:* 10 - 14 days *Tinea corporis* and *cruris:* four to 10 days *Tinea pedis* – unknown	Direct contact with human or animal sources; less commonly by inanimate objects	As long as lesions are present or viable fungus are present on contaminated objects and surfaces	Generally, students can attend school with ringworm infections as long as infected areas are covered	Varies depending on type; certain activities should be restricted; clean and drain shower areas frequently
Rubella (German Measles)  Refer to page 80	Mild rash illness, possibly with low-grade fever, lymphadenopathy, and joint pain or arthritis (teens and adults). May cause miscarriage or congenital defects in infants whose mothers are infected during pregnancy	14 days (range of 12-23 days)	Direct or droplet contact with nose and throat secretions of an infected person	seven days before appearance of the rash through seven days after rash onset	***Index Case*:** Excluded for seven days after the onset of the rash ***Susceptible Contacts***: Students and staff without proof of immunity shall be excluded until proof is provided or if exempted until 23 days after last reported case	**Vaccine Available:** Two doses of rubella-containing vaccine (MMR) are recommended for school-aged children and adults
Disease/ Condition	**Signs/ Symptoms**	**Incubation Period**	**Mode of Transmission**	**Period of Communicability**	**Exclusion/ Attendance**	**Prevention**

Scabies Refer to page 27	Itching and blister-like sores in the burrows of the skin	Two to six weeks	Direct contact with an infested person's skin, clothing or linens	From infection until eggs/mites are destroyed by treatment	Exclude until the day after treatment	Inform parents of infestations and proper control measures for home elimination; prophylactic treatment of home contacts
Salmonellosis  Refer to page 42	Diarrhea (sometimes bloody), nausea, vomiting, stomach cramps and fever	12-36 hours (range of six to 72 hours)	Fecal-oral and foodborne	While symptomatic	Exclude while symptomatic	Handwashing and food safety
Shigellosis  Refer to page 43	Diarrhea (sometimes bloody), sudden stomach cramps, nausea, vomiting and fever	24-72 hours (range of 12 hours - five days)	Fecal-oral	While shedding, up to several weeks	Exclude until: 1) 48 hours after effective antimicrobial therapy with susceptibility testing or 2) One negative stool collected 24 hours after finishing microbial therapy	Handwashing

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Shingles (Herpes Zoster) Refer to page 28	Rash that develops vesicular lesions appearing along nerve pathways	Not applicable	Transmission can occur through direct contact with the rash resulting in a case of varicella	Until lesions are crusted	***Index Case:*** Exclude only if the site of infection cannot be covered ***Susceptible Contacts:*** Do not exclude	Two doses of age-appropriate varicella vaccine Two doses of Shingrix vaccine for adults ages 50 and older
Streptococcal Sore Throat and Scarlet Fever Refer to page 29	Fever, exudative tonsillitis or pharyngitis and tender cervical lymph nodes; in cases of scarlet fever, a fine-red rash that feels like sandpaper occurs	Usually two to five days, rarely longer	Large respiratory droplets or direct contact with an infected person or carrier	A person who is untreated can spread the disease for several weeks, but an individual is considered no longer infectious after the competition of 24 hours of an appropriate antibiotic therapy	Exclude until the infected person no longer has a fever and has been on antibiotics for at least 12-24 hours	Encourage good personal hygiene, effective hand washing, and covering coughs/sneezes.

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Tick-borne Infections  Refer to page 31	Varies by specific disease, but includes fever, rash, muscle aches, fatigue, headache, depression and anorexia	**Lyme:** two to 31 days, usually seven to 10 days **Rocky Mtn. Spotted Fever:** three to 14 days **Ehrlichiosis**: varies, generally seven to 14 days	Transmitted from ticks to humans	Not applicable	None	Appropriate removal of tick
Tuberculosis  Refer to page 50	Cough that lasts longer than three weeks, hemoptysis, night sweats, fever, chest pain, weight loss, fatigue, chills and loss of appetite	Two to 10 weeks for positive TST or IGRA; progression to TB disease is greatest in the first two years	Airborne	Three months prior to onset of symptoms or a positive lab report	Yes, until no longer considered infectious	Avoid close contact with an infectious person; treatment for LTBI; use good hand, cough/sneeze hygiene

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
Varicella (Chickenpox)  Refer to page 83	Rash illness that progresses into itchy, fluid-filled blisters; "break-through" cases may appear as macular and papular lesions (small flat or raised red bumps). Other symptoms may include fever, tiredness, loss of appetite, and headache	Average of 14-16 days, range of 10-21 days	Contact with infectious respiratory secretions, airborne droplets or fluid from vesicles	Two days before rash onset until all lesions have crusted or until no new lesions appear in a 24-hour period (in mild cases without vesicular lesions)	***Index Case***: Exclude until the vesicles crust over or, if no vesicles are present, until no new lesions have appeared in a 24-hour period ***Susceptible Contacts***: During an outbreak (note definition of outbreak: ≥5 linked cases in age <13 years old or ≥3 linked cases in age ≥13 years old), exclude exposed contacts until proof of immunity is provided or for exempted persons, 21 days after the rash onset of the last case	**Vaccine Available:** Two doses of age-appropriate varicella vaccine; vaccine is effective in preventing disease within five days of exposure; varicella-zoster immune globulin given ideally within 96 hours (up to 10 days) after exposure may lessen severity of disease in high-risk contacts who cannot receive varicella vaccine

Disease/ Condition	Signs/ Symptoms	Incubation Period	Mode of Transmission	Period of Communicability	Exclusion/ Attendance	Prevention
West Nile Virus (WNV)  Refer to page 63	Abrupt onset of fever, headache, myalgia, weakness and often abdominal pain, nausea or vomiting; most cases are asymptomatic	Usually three to 15 days	Primarily through the bite of infected mosquitoes; WNV may be transmitted person to person through transfusion or transplant	Humans are not infectious to other humans except through blood/organ donation	Not applicable	Avoid exposure to mosquitoes during hours of biting (from dusk to dawn) or use repellants; destroy larvae, kill mosquitoes and eliminate areas of standing water available for mosquito breeding

Rash Illnesses: Description And Information Tables

Illness	Rash Description	Other Symptoms	Agent	Period of Communicability	Exclusion/ Attendance
Chickenpox (Varicella) 	Rash typically begins on face and trunk and progresses to extremities; lesions progress from flat to raised to fluid-filled vesicles before crusting; several stages are present at the same time; vesicles are very itchy; breakthrough cases may have a mild flat and raised rash that may be itchy	Low-grade fever, loss of appetite, tiredness, headache	Varicella zoster virus	Two days before rash onset until all lesions have crusted or until no new lesions appear in a 24-hour period (in mild cases without vesicular lesions)	Exclude until the vesicles crust over or, if no vesicles are present, until no new lesions have appeared in a 24-hour period. ***Susceptible Contacts***: During an outbreak (note definition of outbreak: ≥5 linked cases in age <13 years old or ≥3 linked cases in age ≥13 years old), exclude exposed contacts until proof of immunity is provided or for exempted persons 21 days after the rash onset of the last case.
Parvovirus B19 (Fifth Disease)	Begins on the face and is bright red with a slapped cheek appearance can progress to the trunk, extremities and feet in a lace-like pattern; may be itchy; intensity of the rash varies and usually goes away in seven to 10 days, but can come and go for several weeks	Low-grade fever, malaise, headache, runny nose, and joint pain	Human parvovirus (B-19)	Contagious when they have a fever or cold-like symptoms before the onset of the rash; most likely not to be contagious after the rash appears	Recommend exclusion if fever is present, individual is usually no longer contagious after appearance of rash; pregnant women with illness or exposure need to seek medical advice, parvovirus B-19 can be passed from the mother to her baby

Illness	Rash Description	Other Symptoms	Agent	Period of Communicability	Exclusion/ Attendance
Hand, Foot and Mouth Disease	Rash begins as small red spots that blister and become ulcers on the tongue, gums and inside of cheeks and progresses to a rash that is located on the palms of hands and soles of feet and appear on the buttocks and genitalia; flat and raised red spots that may form blisters; rash usually is not itchy – oral lesions can be very painful	Low-grade fever, sore throat and malaise prior to onset of rash	Enteroviruses	Generally, people with HFMD are most contagious during the first week of illness, but may be able to spread the virus several weeks after symptoms resolve	No specific requirements regarding the exclusion of children with HFMD from school, but CDC recommends that individuals with HFMD stay home while ill; may consider exclusion for children who are febrile, those with oral blisters who drool or have lesions on hands that are weeping, and children who do not feel well enough to participate in classroom activities
Measles 	Rash begins at hairline and ears and progresses to trunk, arms and legs; begins as flat, red spots possibly with small, raised bumps; may become confluent; slight itch (if any)	High fever, malaise, cough, coryza (runny nose), conjunctivitis and Koplik spots	Measles virus	Four days before through four days after rash onset	**Index Case:** Exclude from school and contact with individuals outside home for four days after appearance of rash **Contacts:** Contacts with no proof of immunity or exempted are excluded until proof of immunity is shown or until 21 days after onset of last measles case

Illness	Rash Description	Other Symptoms	Agent	Period of Communicability	Exclusion/ Attendance
Pityriasis rosea	Rash begins as an initial (herald) patch in ½ of cases that is salmon-pink, scaly and enlarges in size to about 0.5" that is on the trunk or upper extremities; within 21 days, secondary lesions spread over the trunk and extremities; secondary lesions are red and scaly; rash is usually itchy	None	Inflammatory skin disease	Not a communicable condition; treated with anti-pruritic therapy	Do not exclude
Rubella 	Rash begins on face and progresses to trunk and extremities; flat and raised pink, discrete, rash that may be absent and often fades or turns red without desquamation; most evident after hot shower; slight to no itch	Low-grade fever, joint pain (adolescents and adults) and enlarged and tender lymph nodes at the back of the neck	Rubella virus	Seven days prior to the onset of rash through seven days after the rash appears	**Index Case:** Exclude from school and contacts from outside the home for seven days after the onset of rash **Susceptible Contacts:** Students and staff without proof of immunity are excluded until 23 days after the onset of last case; pregnant women with illness/exposure need to seek PCP advice
Scabies	Rash is manifested as crusts, vesicles, pustules, blisters or tiny papules that are usually very itchy; most common in webs of fingers, hands, wrists, armpits, groin and elbows	Scratching of rash can become infected with *Streptococcal* or *Staphylococcal* bacteria	*Sarcoptes scabiei*	From time of infection until one day after treatment	Exclude from school until one day after treatment

Illness	Rash Description	Other Symptoms	Agent	Period of Communicability	Exclusion/ Attendance
Group A Strep Infection (Scarlet Fever)	Generalized red, sandpaper-like rash that may blanch under pressure	High fever, sore throat and nausea; tongue is covered with white "fur" before peeling and developing into strawberry tongue; diagnosis is made with positive throat cultures for strep	Group A *Streptococcus*	Onset of symptoms until 24 hours after treatment with an appropriate antibiotic therapy	Exclude until patient no longer has a fever and has taken antibiotics for at least 24 hours
Shingles	Vesicular rash that develops on one side of the face or body. The rash consists of blisters that typically scab over in seven to 10 days and fully clear up within two to four weeks.	Pain, itching or tingling in the area where the rash develops (prior to the appearance of rash), chills, headache and nausea	Varicella-zoster virus	Transmission of varicella-zoster virus can occur through direct contact with the rash or fluid from shingles lesions; susceptible persons who come in direct contact with lesions would acquire chickenpox, not shingles; a person can no longer spread the varicella-zoster virus once the rash lesions crust	Do not exclude if the rash can be covered. If the rash cannot be covered, exclude until lesions crust.

APPENDIX A

MANAGING AN INFECTIOUS DISEASE OUTBREAK IN A SCHOOL SETTING

INTRODUCTION:

A disease outbreak is defined by the World Health Organization as "the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season." An outbreak of a disease may occur in a restricted area (e.g., a single school or household), or it may extend over a larger area such as multiple schools, a community or even the entire nation. It may last for a few days or weeks, or for several years.

The surveillance of disease is the discipline of continuously gathering, analyzing and interpreting information and data about diseases and conditions. School nurses play a vital public health role by providing ongoing surveillance of those diseases and conditions that are seen daily in the school setting, looking for any situation that is outside of the normally expected level of disease in their population. Discovering occurrences or increases in disease and reporting these findings to the local health department are the first important steps toward identifying an outbreak and controlling the further spread of that disease.

PREPARATION FOR AN OUTBREAK:

Poor hygiene practices and close contact of individuals throughout the school day are factors that put schools at greater risk for an outbreak of an infectious disease. As infections may occur and spread rapidly, it is important that school personnel be prepared to put processes and policies into place quickly to mitigate the spread of disease, to communicate with staff, parents and their communities in a timely manner, to continue to provide instruction and services to their student population, and, above all, to keep their students safe.

The following are suggested points to consider and steps to take at the beginning of each school year in preparation for a possible infectious disease outbreak:

IMMUNIZATIONS/PROOF OF IMMUNITY:

1. During an outbreak, school staff members are included in the group of individuals that would be excluded from school and school-related activities until the disease-specific immunity requirements have been met. To avoid the possibility that they may be excluded, request that all school staff contact their healthcare provider to verify their immunization or disease history or to request appropriate laboratory testing to determine immunity status. Acceptable methods of immunity documentation do not include self-reports of childhood illness. Vaccine records, titer results, and clinically documented history of disease are common methods of acceptable proof of immunity. Other considerations when it comes to immunization status include:
    - Although there is always the potential for needing the immunization status information for several other vaccine-preventable diseases, the most frequent diseases where immunity status would be necessary in a school setting are **measles**, **mumps, and varicella**.
    - Procedures/policies should be developed to determine:

- Whether immunization records will be maintained at the school or if staff members will be responsible to maintain them. Consider maintaining records for staff members after consulting with corporation counsel.
- Where and how records will be stored in the school to comply with HIPAA and FERPA regulations. Staff immunization records can also be entered into CHIRP to facilitate access and to address long-term storage needs as long as staff permission has been obtained.

2. Review student immunization records and identify those students who are not in compliance with the immunization requirements for school entry for that school year.
    - Notify the parents of these identified students, informing them that should an outbreak of a vaccine-preventable disease occur in the school, it is likely that their student will be excluded from school until it is determined, per the disease-specific protocol, it is safe for them to return to school.

3. Review student immunization records and identify those students who have a religious or medical exemption on file.
    - Notify the parents of these identified students, informing them that should an outbreak of a vaccine-preventable disease occur in the school, it is likely that their student will be excluded from school until it is determined, per the disease-specific protocol, it is safe for them to return to school.

EDUCATION:

In an outbreak situation, it is likely that students and/or staff will be required to be excluded from attending school and school-related activities (in some cases for an extended length of time), or a school may be required to offer virtual instruction to students, or a school may be required to close as part of the efforts to control the spread of the disease. It is recommended that consideration be given to establishing an alternative educational plan that could be used to provide continued educational services to those students who are impacted by exclusion--whether that be a select number of students or the entire student body. This same consideration should be given for the situation where staff may be excluded as well. For information and assistance as it relates to developing an alternative educational plan, contact the Indiana Department of Education, student health services specialist at (317) 232-0541.

NEAR OUTBREAK STATUS:

Each disease has an individual threshold number of cases that must occur to determine that an outbreak scenario exists. It is the responsibility of the local health department, not the school nurse, to determine if circumstances represent an outbreak or a situation that is nearing the outbreak threshold. The local health department should be notified immediately if a situation is noted where the number of cases of an illness exceeds what is normally experienced in your school and/or the individuals affected with the illness have a common connection (same class, sports team, same food etc.); or if you are notified that a student has been diagnosed with a reportable disease listed in the *Communicable Disease Reporting Rule for Physician, Hospitals and Laboratories (410 IAC 1-2.5-54)* (addressed in Appendix B). Go to http://www.in.gov/isdh/files/Final_Rule_LSA_.pdf.

Guidance and instruction for next steps in addressing an infectious disease outbreak in the school should come from the staff at the local health department. The subject matter experts for each disease who work in the IDOH Infectious Disease Epidemiology and Prevention Division are also available for consultation at 317-233-7125 and can serve as a resource for information. At this stage, **close communication with the local health department is very important** and will contribute to the successful and least disruptive resolution to an infectious disease outbreak.

If the local health department has determined the school is nearing outbreak status, follow these steps:

IMMUNIZATIONS/PROOF OF IMMUNITY:

- If they have not been addressed, implement the immunization/immunity-related steps listed above in the "Preparation" section.
    - For a scenario that involves a communicable disease where it is applicable (e.g., Varicella), notify any teachers, students and staff who may be pregnant or immunocompromised of the presence of the disease in the building and refer them to their physician for guidance regarding immunizations and/or exclusion.
- Determine the number of students and staff who will be impacted by the outbreak (for a vaccine-preventable disease outbreak it would be those individuals (students and staff) whose immunization records are not complete and those individuals who have religious or medical exemptions on file) and develop a tracking system to be used throughout the outbreak. More information regarding possible content of the tracking system is located below. Communicate this information to the local health department.
    - Staff who do not have proof of immunity may be asked to provide titers to avoid exclusion from work or quarantine. This is common in many vaccine-preventable disease outbreaks, but comes up most often with measle outbreak exposures. Titers are a measurement of antibodies in the blood that can indicate sufficient immune response to a pathogen. Thus, blood draws are necessary for titers and will often be coordinated through the individual's primary care physician.

COMMUNICATIONS:

- Timely and accurate communication with staff, families and the greater community is a critical component of the response and recovery phases of an infectious disease outbreak. During a crisis, communication with parents, staff, families, students and the media is important, and each group may require different, yet consistent, messages:
    - It is recommended that an evaluation of the school's or corporation's communication plan take place at this phase.
    - The U.S. Department of Education Emergency Response and Crisis Management Technical Assistance Center recommends that schools consider the following: (1) identifying the appropriate spokesperson to communicate with the media, ensuring consistent and accurate messaging, (2) establishing media briefing schedules, (3) developing procedures for writing and approving news releases and (4) developing messages with consistent content for dissemination by the various agencies. ("Lessons Learned from School Crisis and Emergencies", U.S. Department of Education; ERIC - ED494843 - Lessons Learned from School Crises and Emergencies. Volume 1, Issue 1, Fall 2006, US Department of Education, 2006

OUTBREAK STATUS MET:

When the threshold of disease cases has been met for the infectious disease in question, the local health officer or the IDOH will declare that there is an outbreak. Once an outbreak has been declared, close and frequent communication with the local health department is especially important.

After the outbreak threshold has been met, the local health officer and local health department staff will likely contact the IDOH for consultation. Frequently, a conference call with the IDOH Surveillance and Investigation Division staff and other key individuals will be conducted to discuss the details of the situation and determine next steps. Key individuals who should be a part of this conference call may include: (1) the school nurse; (2) building principal; (3) corporation superintendent; (4) corporation-level communication staff; (5) local health department personnel and the local health officer; (6) IDOE School Health Services representative; and (7) IDOH epidemiology team and other representatives as needed. During this call, information regarding any required exclusions or other protocols for disease management will be discussed.

The details and protocols that need to be followed in an outbreak situation are disease specific, but for the school staff they may include assisting the local health department or IDOH in: (1) conducting surveys of student and/or staff behavior (e.g., what foods they ate, where they traveled, etc.); (2) arranging for and assisting in conducting immunization clinics in a school facility; (3) assisting in specimen collection; (4) assisting in and facilitating communication with students and their families, especially those involved directly in the outbreak.

When the local health department has determined that a school has reached outbreak status, the local health officer and/or local health department or IDOH will provide instructions for next steps. Some of those steps may include:

IMMUNIZATIONS:

- If the steps listed above in the immunization section of "Preparation" have not been implemented, it is necessary to do so at this time.
- Using the tracking system established earlier, document the students and staff involved in the outbreak and include the necessary information requested by the local health department. For vaccine-preventable disease outbreaks, this information will likely include: (1) student name and contact information; (2) date of birth; (3) dates of immunizations received related to the infectious disease of the outbreak; (4) relationship to the index case (e.g., family member, when and how was exposed to index case, etc.).
- Encourage those students and staff who may be pregnant or immunocompromised to contact their healthcare provider for instructions regarding immunization or exclusion options. Depending on the infectious disease involved, these individuals may be required to be excluded from school for the length of time specific to the outbreak protocol for the disease.
- As appropriate for the disease outbreak, the local health department and/or IDOH staff will advise and instruct school staff regarding those individuals who must be excluded from school and for how long.
    - For vaccine-preventable diseases, those students with religious or medical exemptions on file will be excluded from school for their protection for the prescribed length of time. Follow the direction of the local health department and IDOH staff in the exclusion of these students.

- If recommended by local health department and/or IDOH staff, an immunization clinic may be needed to vaccinate students, staff and possibly community members who are or will be impacted by the outbreak.
    - The local health department staff, with the assistance of the IDOH Immunization Division, will provide all direction, instructions, staff and supplies required to conduct the clinic.
    - School personnel play a vital role in the success of the clinic. Items and tasks that are frequently the responsibility of school staff include:
        - Assisting in the determination of the location for the clinic or clinics and securing the space(s), which may be a school building or other corporation-owned facility
        - As necessary, arranging for bus transportation of students and staff to attend the clinic if those impacted are a part of more than one location
        - Assisting in the security of the building and the flow of patient traffic through the facility during the clinic
        - Assisting in identifying and notifying the students and their parents about the clinic
        - Assisting in the distribution and collection of permission slips, immunization records or other requested paperwork required by the local health department

COMMUNICATIONS:

- As stated earlier, timely and accurate communication with staff, families and the greater community is a critical part of the successful management of an infectious disease outbreak. Implementing the corporation's communication plan at this point will ensure success.
- **It is strongly encouraged that school personnel work closely with local health department and IDOH staff to determine what kind of communication with students, staff and families is necessary.** The local health department staff has the expertise and access to other resources to provide the most current medical advice available regarding communicable diseases. They and the IDOH staff can assist in drafting communications for parents and the greater community.
- Frequently the question is raised by schools whether communication with parents and the community (e.g., letter, email, mass telephone message) regarding the outbreak of an infectious disease in the school is necessary. Considering that every infectious disease has specific modes of transmission and degrees of communicability and that every school corporation and community has its own history and expectations, the following points should be considered in the decision-making process:
    - Transmission of the disease (e.g. airborne, saliva, fecal/oral, etc.): This will contribute to the possible number of those impacted or potentially exposed.
    - Degree of communicability (i.e., how easily disease is spread): This will contribute to the possible number of those impacted or potentially exposed (e.g., measles which is very easily and quickly spread to those who are near the infected individual vs. meningitis which is spread only to close contacts and those who have shared saliva [i.e., drinking after one another, kissing, etc.]).
    - Is it reasonable that between the local health department and the school that all those who are at risk can be targeted, contacted and directed toward care?
        - Example 1: A case of meningitis where five students have been identified as being the only individuals who are at risk and all five students have been contacted and directed toward the appropriate care. This is a scenario where those who are at risk have been identified, contacted and directed toward care. No other students or staff were determined to be at risk of acquiring the disease; therefore, sending communication to the entire school would not be needed or recommended.

- Example 2: A case of measles in a student who was considered contagious just before and during a school holiday break. Those students and staff who were exposed to the student while they were in class have been identified and directed to receive the appropriate care. However, an unknown number of students, staff and members from other schools within the corporation or members of the community may be at risk for exposure because of vacation, extracurricular activity or bus activity of the student. This is a scenario in which those who are known to be at risk are identified, contacted and directed toward care. However, because of the unknown number of individuals who might have been exposed, sending communication to the entire school and possibly corporation or community may be advised.

EDUCATION:

As appropriate, implement the alternative education plan that was previously developed.
Through strong, collaborative relationships, schools and local health departments can successfully manage an infectious disease outbreak, ensuring that the health and safety of the students, staff and community is maintained with minimal disruption to the educational process.

RESOURCES:

- Indiana Department of Health (IDOH):
  - Local Health Department Map and Contacts
  - Meningococcal Disease Information

APPENDIX B

COMMUNICABLE DISEASE REPORTING RULE

The *Communicable Disease Reporting Rule for Physician, Hospitals and Laboratories (410 IAC 1-2.5-54)* https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf establishes reporting requirements, disease intervention measures, general and specific control measures, monitoring and preventive procedures for communicable diseases in Indiana. The rule provides reporting instructions for physicians, hospital administrators (or their designee) and laboratories for diseases or laboratory results. It also incorporates (by reference) various documents that provide case definitions and guidance on measures to prevent further spread of the diseases.

Those diseases listed in this rule must meet one or more of the following six criteria: 1) a nationally reportable disease, 2) a vaccine-preventable disease, 3) an emerging infectious disease, 4) an organism with significant emerging drug resistance, 5) a disease with high bioterrorism potential and/or 6) a disease that requires a public health response based on severity and ease of transmission.

The rule requires physicians, hospitals and laboratories to report findings specific to each of the listed reportable diseases to the local health department in the county where the individual resides and to the IDOH.

SCHOOL OBLIGATION FOR REPORTING:

The balance between following federal laws concerning the sharing of student information and the health and safety of students and staff can be a difficult and sometimes confusing issue. The *Family Educational Rights and Privacy Act (FERPA)* is a federal law that protects the privacy of student education records in schools and gives parents certain rights with respect to their children's records until they reach the age of 18 or attend a school beyond the high school level. As a general rule, access to student information without parent permission is limited to a specific group of school officials and those with a "legitimate educational interest" in the student. Recent new guidance found in the *Guide for Developing High-Quality School Emergency Operations Plans* (2013), from the U.S. Departments of Education, Health and Human Services, Homeland Security, Department of Justice, the Federal Bureau of Investigation and the Federal Emergency Management Agency, provides schools with information pertaining to the development of school safety plans and the implications for schools regarding the sharing of student personal information in emergency situations.

According to the guide, school officials have an obligation to balance safety and student privacy interests. To assist in accomplishing that balance, *FERPA* contains exceptions to the general consent requirement, including the "health or safety emergency exception". The guide goes on to share the following information about the "health or safety emergency exception" requirement:

> *"FERPA* generally requires written consent before disclosing personally identifiable information (PII) from a student's education records to individuals other than his or her parents. However, the *FERPA* regulations permit school officials to disclose PII from education records without consent to appropriate parties only when there is an **actual, impending,** or **imminent** emergency, such as an articulable and significant threat. Information may be disclosed only to protect the health or safety of students or other individuals. In applying the health and safety exception, note that:

Schools have discretion to determine what constitutes a health or safety emergency. "Appropriate parties" typically include law enforcement officials, first responders, public health officials, trained medical personnel and parents. This *FERPA* exception is temporally limited to the period of the emergency and does not allow for a blanket release of PHI. It does not allow disclosures to address emergencies that *might* occur, such as would be the case in emergency preparedness activities.

It is also stated in the guide that "the U.S. Department of Education would not find a school in violation of *FERPA* for disclosing *FERPA*-protected information under the health or safety exception as long as the school had rational basis, based on the information available at the time, for making its determination that there was an articulable and significant threat to the health or safety of the student or other individuals."

The information noted above should be considered by school officials when determining when and how student information is shared with the local health department (LHD) and/or IDOH.

Although schools are not legally required to report cases of the identified diseases or conditions listed in the Communicable Disease Rule, because occasionally a report by a school to the LHD will be the first notification of a reportable illness, it is strongly recommended that if school officials become aware of a case of a disease or condition, that information should be reported as soon as possible to the local health department. The sharing of aggregate data and information with the LHD and/or IDOH concerning disease information in a school is permitted without parent written permission and as stated in the guidance above, following the declaration of an outbreak (i.e., a health emergency), written parent permission would no longer be necessary before the sharing of student information can take place. Additionally, as is also noted above, schools have the discretion to determine what constitutes a health or safety emergency and thus the steps necessary for the sharing of student information.

Although many of the diseases and/or conditions that are frequently found in the school setting are not found on the list of reportable diseases, it is recommended that if the number of cases seen of those diseases in the school exceeds what is typically found, it is good public health practice to notify the local health department of this situation as well.

RESOURCES:

- Readiness and Emergency Management for Schools:
  - The Guide for Developing High-Quality School Emergency Operations Plans
  - Resources Supporting the Guide for Developing High-Quality School Emergency Operations Plans
- Indiana Department of Health (IDOH):
  - The Indiana Communicable Disease Reporting Rule for Physicians, Hospitals, and Laboratories (410 IAC 1-2.5-54), 2016

APPENDIX C

Resources

The *Communicable Disease Reference Guide for Schools: 2025 Edition* is based on the best scientific, public health and medical information available, much of which came from the sources listed below. Additional resources and websites that may prove to be useful are also provided below:

RESOURCES:

- *Control of Communicable Diseases Manual*. 20th Edition. David Heymann, editor, American Public Health Association, Washington, D.C. 2014.
- *Epidemiology and Prevention of Vaccine-Preventable Diseases*. 14th Edition. Centers for Disease Control and Prevention, 2021.
- *Red Book*. 32nd Edition. 2021 Report of the Committee on Infectious Diseases, American Academy of Pediatrics.

WEBSITES:

- Advisory Committee on Immunization Practices (ACIP)
- American Academy of Pediatrics (AAP)
- Occupational Safety and Health Administration (OSHA)
- Center for Disease Control and Prevention (CDC):
    - Bloodborne Infectious Disease Risk Factors
    - CDC Index to Specific Disease Information
    - Photographs of Diseases/Conditions
- Food and Drug Administration (FDA)
- Immunize.org
- Indiana Department of Health (IDOH):
    - Immunization Information
- Handwashing Resources:
    - About Handwashing
    - Hand Hygiene in Schools and Early Care and Education Settings
- Medline
- National Association of School Nurses (NASN)
- Mayo Clinic
- *The Epidemiology and Prevention of Vaccine-Preventable Diseases*, 14th Edition (2021). This book is available online here.

LEGAL REQUIREMENTS:

In addition to the Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories (410 IAC 1-2.5, https://www.in.gov/health/idepd/files/Final_Rule_LSA_.pdf) described in the manual, there are other legal resources schools should consult when appropriate.

- Child and Teen Immunizations
- Children – Vaccines and Immunization Information

- Older Children and Teens – Vaccine and Immunizations Information
- Catch-up Immunization Schedule for Children and Adolescents
- Child and Adolescent Immunization Schedule by Age

APPENDIX D

REPORTING EXCESSIVE ABSENTEEISM

In 2004 the "Counterterrorism Symptom and Health Syndrome Data Collection" (IC 16-19-10-8) law was enacted to better monitor and track symptoms and health syndromes from outbreaks or suspected outbreaks of diseases or other health conditions that may endanger public health. As a result of this law, the IDOE developed and enacted 512 IAC 1-2-1, "Threshold of Student Absences for Reporting Purposes to Local Health Departments" (a.k.a. 20% Absenteeism Rule) as a means to give guidance to schools on their responsibilities for reporting excessive absenteeism to support this effort. See also IC 20-33-2 for more information on attendance laws. This rule (512 IAC 1) requires school corporations and accredited nonpublic schools to:

- Develop, in consultation with the school nurse, a local attendance system for reporting symptoms and health syndromes from outbreaks or suspected outbreaks of diseases or other health conditions.
- **Report to the local health department the percentage of student absences when the percentage of student absences from a school is equal to or greater than 20% of the enrolled students** (exceptions: days immediately before or after school vacation days or scheduled instructional day that is canceled due to any weather-related emergency unless otherwise determined by the superintendent).
    - **Report to the IDOE State Attendance Officer the percentage of student absences when the percentage of student absences from a school is equal to or greater than 20% of the enrolled students.** The Reporting Form to be completed when making a report to the IDOE State Attendance Officer can be found at Reporting Form for Absenteeism over 20% (jotform.com).

Note: The report should be made based on a 20% rate of absenteeism for a school rather than a school corporation. The LHD and/or IDOH staff investigate each case of a reportable illness as designated by the Communicable Disease Reporting Rule referenced earlier in this document. The local health department staff can aid school personnel on nonreportable communicable diseases as well. They will assist school staff with implementing exclusion requirements and control measures as they become necessary. The input of school nurses toward the successful monitoring of disease activity in the community and school environment is a very valuable part of the public health process.

LOCAL HEALTH DEPARTMENT CONTACT INFORMATION:

Contact information for all local health departments in the state of Indiana can be found on the IDOH website at https://www.in.gov/health/lhd/local-health-department-map/.

STATE ATTENDANCE OFFICER CONTACT INFORMATION:

Contact information for the IDOE State Attendance Officer can be found on the IDOE Office of Student Services website at https://www.in.gov/doe/students/school-safety-and-wellness/state-attendance-officer/

APPENDIX E

LIVE ANIMALS IN SCHOOLS

Animals can provide valuable and enriching educational experiences in a classroom setting. However, due to the risk of injuries, allergies or zoonotic diseases, schools must take appropriate steps to ensure a safe environment for animals, students and staff. If a school chooses to have animals in the classroom, whether temporarily as a learning experience or for a longer term as a class pet, there are certain considerations that should be made and steps taken to minimize risks of injury or illness.

TYPES OF ANIMALS NOT SUITABLE FOR A CLASSROOM SETTING:

Classroom pets should be limited to domestic animals that are bred in captivity. The following animals are **NOT** suitable for a school setting:

- Inherently dangerous animals, such as wild felines (e.g., lions, tigers, cougars, bobcats, ocelots, servals and others), wild canines (e.g., foxes, coyotes, wolves and others) and other wild carnivores.
- For settings with children under 5 years of age: reptiles, amphibians, poultry, rodents and ferrets.
- Nonhuman primates (i.e., monkeys and apes).
- Wild animals that are more likely to spread rabies, including bats, raccoons, foxes and skunks
- Stray animals and aggressive or unpredictable animals.
- Venomous or toxin-producing spiders, insects and reptiles. Frogs, snakes, lizards and other amphibians also may be venomous.

GENERAL RECOMMENDATIONS FOR ANIMALS IN CLASSROOMS:

- Notify parents of the plan to have an animal in the classroom. Inquire about special considerations that may be needed for children who have allergies, asthma or special behavioral needs or are immuno-compromised. If any parent confirms this is an issue, consider alternative options for having the animal in the classroom that year.
- Plan on where animals will be kept in the classroom. Keep animals in cages or designated, localized areas as much as possible:
    - Do not let animals roam or come into contact with wild animals.
    - Display animals in enclosed cages with appropriate restraints.
    - Locate sensitive students as far away from animals and habitats as possible.
    - Locate animals away from ventilation vents to avoid circulating allergens throughout the room or building.
    - Keep animals away from upholstered furniture, carpets and stuffed toys.
- Do not allow food or drink in animal areas and do not allow animals in areas where food or drink are stored, prepared or consumed. Animal cages, enclosures, food and water dishes and toys should not be cleaned in sinks or other areas that are used to store, prepare, serve or consume food and drinks for human consumption.
- Ensure adult supervision whenever children are in contact with animals, especially with children younger than 5 years of age.
- Wash hands right after contact with animals, animal habitats or feed. Educate children about harmful germs that can spread from animals to people and the importance of proper handwashing technique
- Clean and disinfect all areas where animals and animal products have been present.

- Ensure that proper habitat, feed and regular veterinary care are provided for the animals. Have a plan for animal care during weekends, holidays and longer breaks when school is not in session.

DEVELOPING A WRITTEN SCHOOL POLICY FOR ANIMALS IN CLASSROOMS:

410 IAC 33-4-7 states the following:
(a) Furred, feathered, or reptilian animals shall only be allowed in classrooms for educational purposes.
(b) Fish in aquariums are exempt from the educational requirement in subsection (a); however, they must be of a reasonable size and quantity.
(c) Service animals are also exempt from the educational requirement in subsection (a).
(d) Schools allowing animals in the classroom shall have a written policy addressing the following:

(1) Which types of animals are allowed
(2) When animals are allowed in classrooms for educational purposes
(3) The duration of an animal's stay in a classroom
(4) Housekeeping requirements
(5) How issues with students or staff allergic to the animal will be addressed

This policy shall be available for the [State Department of Health] or its agent's review.

ANIMAL BITES AND REPORTING:

If an animal bite occurs, wash the wound with warm water and soap immediately. Seek additional medical care if deemed necessary by the school nurse. Under 410 IAC 1-2.5-80, animal bites by domestic or wild mammals are reportable within 24 hours to the health department by anyone with knowledge of the bite, including school staff. It should be noted that while bites and scratches from non-mammals (reptiles, amphibians, birds, etc.) are not reportable in Indiana, they should still be reported to the school nurse and the student's parents or guardians. Animal bites to people must be reported to the health department in the county where the bite victim lives. Link to report an animal bite: https://www.in.gov/rabies/report-an-animal-bite/.

FOR MORE INFORMATION:

For information on human health concerns, call the Indiana Department of Health at 317-233-7125.
For information on animal health concerns, call the Indiana State Board of Animal Health at 317-544-2400.

OTHER RESOURCES:

- Centers for Disease Control and Prevention (CDC):
  - Resources for Schools and Daycares
  - Guidelines for Animals in School Settings
- National Association of State Public Health Veterinarians:
  - Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2017
- The Center for Food Security and Public Health:
  - Pets in the Classroom
- National Science Teaching Association:
  - Responsible Use of Live Animals and Dissection in the Science Classroom