

CHAPTER TEN – COMMUNICABLE DISEASE CONTROL

Notifiable Conditions in New Mexico

Here's the link to [Notifiable Conditions in New Mexico](#)

Public Health Emergency Hotline: (505) 827- 0006

Infectious diseases occur frequently in the school setting. Factors that affect the risk of disease in schools include age of students, immunity of the group, number of students, the degree of close contact between children and providers, and the hygienic habits of students and staff.

Medical events with community wide consequences occur hundreds of times each year in New Mexico, some in the school setting. Cost effective care can take on a whole new meaning when a single case of certain diseases translates into many cases, with scores of contacts needing screening, protection and surveillance. In such cases, there are substantial resources available twenty-four hours a day, seven days a week through the Epidemiology and Response Division (ERD) of New Mexico Department of Health. ERD provides expert consultation through a telephone hotline linked to health professionals experienced in management and control of outbreaks as well as laboratory assistance in making diagnoses and obtaining vaccines and/or prophylactic medications.

This system is not merely a convenience; it is required by New Mexico statute and administrative code. As a part of this system, physician offices, laboratories, and other health care agencies are required to report suspected or actual cases of notifiable diseases to the Epidemiology and Response Division.

Under the same statutes and rules, the Office of Epidemiology is required to identify and control outbreaks of these diseases and to report this information to the Centers for Disease Control and Prevention as a part of national data collection. Reports from health care providers to the Epidemiology and Response Division are forwarded to the CDC as New Mexico data.

To report a notifiable disease, receive expert consultation and support during a potential outbreak or to speak with an epidemiologist, call (505) 827-0006.

Procedures for Control of Communicable Diseases

Classroom Cleanliness

Definition: Maintaining cleanliness to prevent the transmission of communicable diseases in the classroom.

Guidelines:

- Adequate hand washing facilities should be available to students and staff. This includes a sink, hot and cold running water, liquid soap, and disposable paper towels. Separate storage areas for clean clothing and linens apart from soiled clothing and linens should be provided.

- All soiled disposable items should be held in waste receptacles lined with plastic bags which should be discarded by staff twice daily. These plastic bags should never be reused! Contaminated items, including disposable diapers, discarded in an uncovered waste receptacle should be placed in a separate small plastic bag before being discarded.
- Approved bactericidal solutions should be used to clean toys, tables, chairs and other environmental surfaces. A solution of 1:9 bleach may be used (one part household bleach to nine parts water), but it must be mixed fresh weekly if stored in opaque container or daily if in clear container to maintain efficacy. All disinfectants should be properly labeled and stored safely out of reach of students.
- Only washable toys should be available in the classroom.
- All equipment, toys, tables, chairs, mats, therapy equipment, etc., used by students who drool or mouth them should be washed with appropriate disinfectant at the end of each day or before use by another student. The use of non-washable furniture and equipment in the classroom is Strongly Discouraged.
- Wheelchairs and trays must be washed with soap and water after feeding. If students eat in the classroom, all soiled tables and chairs should be cleaned.
- Physical or occupational therapists should be contacted before cleaning orthopedic equipment such as braces, splints, etc. to be sure disinfectant choice is appropriate.
- The sink area should be cleaned with disinfectant at the end of each day. NEVER scrape food into sink or rinse soiled dishes in sink. Food should be returned to the school cafeteria or scraped into plastic bags and discarded into a waste receptacle. All eating utensils and equipment should be washed in a dishwasher. They should be collected in a suitable container that can also be washed and taken to the kitchen as soon as possible. Clean dishes should be transported back to the classroom in a container that has also been washed.
- Adaptive feeding equipment and other non-disposable dishes should be kept in a clean storage area.
- Students' personal grooming items should be kept in separate containers.
- Soiled rugs or carpet should be cleaned immediately and not be used until the area is dry. Students who are unable to control body fluids should NEVER be placed directly on a carpet/rug but should be placed on a washable mat or blanket. Diapering should
- NEVER be done on carpet or a rug.
- Changing tables, portable potties and toilet seats should be nonporous and be cleaned with approved disinfectant after each use. Portable potties should be emptied into the toilet and disinfected after each use.
- All toilets, potties (both seats and bowls), sinks, diaper changing tables and floor around changing mat should be disinfected daily. Tile areas of classroom floor should be wet mopped with disinfectant daily in classrooms where students eat and when floor becomes soiled with body fluids. Routine carpet care/shampooing should be provided as needed but not less than twice a year.

Laundering Clothes

Definition: When necessary, laundering clothes in a way to prevent the transmission of communicable diseases in the classroom.

Guidelines:

- Garments heavily soiled with stool should be handled carefully by wearing gloves, and placing garments in a plastic bag for disposal. If stool can easily be removed using toilet paper, the garment may be laundered as described below. Lightly soiled clothing (stained with no solids attached) may be washed as described below.
- Wash clothing in a washing machine, preferably with hot water (temperature $\geq 165^{\circ}\text{F}$).
- Use household detergents for washing clothing.
- Household bleach can be used in the rinse water.
- Dry clothes in a hot dryer (temperature $\geq 171^{\circ}\text{F}$).
- There is no need to disinfect the tubs of washers or tumblers of dryers if cycles are run until they are completed.
- Hands should be washed with soap and water or cleaned with alcohol hand gel after handling soiled linens.

Note: These guidelines apply primarily to laundering clothing and articles soiled with stool. All the common pathogens causing diarrheal illness are effectively treated by using the above methods.

Classroom Cooking

Definition: Preparing food for teaching students skills, reinforcing learning or meeting other educational goals.

Guidelines:

- Before use in classroom cooking, tables and work areas should be cleaned with an approved disinfectant such as a fresh solution of 1 part chlorine bleach to 10 parts water. (If an opaque container is used, the solution needs to be changed weekly; if a clear container is used, the solution must be changed daily to maintain efficacy.)
- Students and instructional personnel should wash hands with soap and water before and after handling food. This process must be repeated any time a student leaves the activity or puts hands to mouth, nose or perineal area.
- Students who have symptoms of illness, or who drool excessively should be excluded from the cooking activity.
- It is recommended that disposable scoops, spoons, tongs and gloves for handling food be used as often as possible and that disposable dishes and dinnerware be used for serving food.
- Students should not be allowed to use fingers to taste food from the preparation bowls.
- Leftovers should be properly stored or disposed and not left out in the classroom or in the trash can overnight. Food should not be disposed of nor should dishes be rinsed in a classroom sink, unless the sink is equipped with a garbage disposal.
- Any non-disposable dishes, pans, utensils and adaptive equipment should be washed in a dishwasher or in the school cafeteria or kitchen.
- Tables and work surfaces used in any cooking activity should be cleaned as in step one above. All individuals participating in the cooking activity should wash hands as in step two.

Diapering

Definition: Changing diapers in such a way so that potential for communicable disease transmission is decreased.

Guidelines:

- Students who are not toilet trained should be checked at least every 2-3 hours and changed when soiled.
- Assemble the following equipment.
- Wet disposable towelettes
- Dry disposable towels/pads
- Disposable diapers
- Covered waste receptacle lined with plastic bag
- Small plastic bag for disposing of diapers if they contain feces or blood
- Disposable gloves
- Washable changing table
- Disinfectant for cleaning changing table
- Place student on changing table with a nonporous surface in bathroom or other appropriate setting. Diapers should NEVER be changed in the classroom. A STUDENT SHOULD NEVER BE LEFT UNATTENDED ON THE CHANGING TABLE.

- Place disposable pad, towel, or paper under student’s buttocks. Remove clothing or lift as necessary to assure all clothing is above the area of the navel.
- Use disposable gloves per universal precautions.
- Remove diaper and discard directly into waste receptacle or plastic bag. NEVER place a soiled diaper on the floor, carpet or furniture.
- Wash perineal area with disposable towelette. In girls, wash from top to bottom and discard towel after each stroke to prevent organisms from entering the vaginal or bladder area. Dispose of towelette with diaper. Place clean diaper on student.
- Remove dry towel from under student. Remove disposable gloves. Discard into waste receptacle.
- Wash student’s hands before returning him/her to class.
- Wash changing table with disinfectant.
- Wash hands per hand washing procedure described in this section.

Handwashing

Purpose: Handwashing is the single most effective technique in preventing transmission of infectious diseases due to individuals carrying or incubating disease without symptoms.

Guidelines: Access to adequate hand washing facilities is necessary, including a sink, hot and cold running water, liquid soap and disposable towels. Poster in Resource Section: **When to Wash Hands – English, When to Wash Hands - Spanish**

- Hands should be washed with soap:
 - Before eating and drinking
 - Before handling dining equipment or utensils
 - Before and after handling any food
 - Before and after assisting in toileting, diapering or feeding
 - After contact with body fluids or blood
- It is recommended that rings and bracelets be removed before hand washing, because microorganisms can become lodged in jewelry settings.
- Recommended procedures for hand washing include the following.
 - Wet hands with warm, running water and apply liquid soap. Warm water helps to get the organisms, dirt and debris into suspension and running water carries them away. Bar soap in a dish provides a place for bacteria to grow.
 - Wash, using a circular motion and friction, for 10 to 30 seconds. Include front and back of hands, between fingers, around nails and wrist area.
 - Hold hands so that water drains from wrist area to finger tips and rinse well under warm, running water.
 - Dry hands well with paper towels. Turn off water faucet with towel and then discard towel in wastebasket.
 - Apply lotion as desired to prevent chapping, because chapped skin breaks open easily, permitting bacteria to enter the system.

Bloodborne Pathogen Exposure List

Definition: Potential for exposure to communicable disease through contact with contaminated/infectious blood/body fluids.

Guidelines:

- The Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.1030 Bloodborne Pathogens requires employers to identify the risk to employees of exposure to bloodborne pathogens in the

work place. Those regulations apply to all employees who potentially might come into contact with blood or infectious materials in the scope of job duties.

- Each school district should identify a person responsible for writing and implementing an occupational exposure plan. Risk management and nursing staff may be involved in the development of an exposure plan.

Chapter 17 of this Manual contains the OSHA reference guidelines, a sample school exposure plan and training material. Federal requirements can be accessed through the OSHA Occupational Safety and Health Administration, [Bloodborne Pathogens and Needlestick Prevention](#).

Toileting

Definition: Training, monitoring and/or assisting a student with toilet needs when the student is unable to do this independently, decreasing the risk of spreading diseases through fecal oral contamination.

Guidelines:

- Assemble all equipment
 - Suitable sized and adapted toilet/portable potty
 - Toilet tissue or disposable towelettes
 - Covered, plastic lined waste receptacle
 - Disinfectant
 - Disposable gloves
 - Disposable plastic bag
 - Clean diaper if necessary
 - Remove diaper or lower underpants and assist student onto toilet seat or potty. Soiled diaper should be discarded in covered waste receptacle. It is inadvisable to give the student toys during toileting or to allow the student to remain longer than 10 minutes on the toilet/potty. **THE STUDENT SHOULD NEVER BE LEFT UNATTENDED IN THE BATHROOM.**
 - After toileting needs, have been met, the student should be taught to wipe him/herself with tissue from front to back and discard tissue in toilet. If the perineal/rectal area is still unclean after the student's effort, the gloved supervising adult should complete cleaning with a disposable towelette.
 - Student should be re-diapered and clothing should be appropriately arranged.
 - Disinfecting/rinsing of the potty/toilet seat should be performed as appropriate.
 - Hand washing by both the student and supervising adult is the most effective method to remove any fecal contamination before the student is returned to class.

Communicable Disease Information Sheets

See index for CDC website for [Diseases and Conditions](#) and [Manual for Investigation and Control of Communicable Disease in New Mexico](#).

Introduction

The fact sheets presented here summarize communicable diseases that commonly affect students and school staff. They were designed to be used as educational and informational material for students, staff and parents, particularly when outbreaks occur in the school setting.

Several general methods of disease prevention available to schools are listed below:

- Surveillance- Observation for cases, monitoring the incidence (new cases) and prevalence (total cases) of diseases in the school population are the crux of surveillance.
- Medical Evaluation- Referral of possible cases to a health care professional (the personal physician or other practitioner, clinic or the local Health Office) for diagnosis and treatment usually generates the medical evaluation.
- Reporting to Department of Health- See list reportable conditions; reports can be made to the Epidemiology and Response Division (ERD) hotline at (505) 827-0006. Immediate reporting of highly contagious diseases like measles and shigellosis, serious conditions such as meningitis and outbreaks of gastroenteritis (vomiting or diarrhea) that may be due to a food or waterborne disease are especially important. Please see Notifiable Conditions in New Mexico.
- Contact prophylaxis- Some severe infections are likely to affect close contacts of cases and may be preventable by antibiotic prophylaxis (preventive treatment). Such treatment may be recommended by the Department of Health (DOH) to close contacts within a classroom, athletic team or another school group.
- Fever- Communicable diseases often present with fever. Because of the normal variation in body temperature, there is no single value that is defined as fever. However, according to the American Association of Pediatrics “A fever is a body temperature that is higher than normal. While the average normal body temperature is 98.6°F (37°C), a normal temperature range is between 97.5°F (36.4°C) and 99.5°F (37.5°C). Most pediatricians consider a temperature above 100.4°F (38°C) as a sign of a fever” (American Academy of Pediatrics, [Signs and Symptoms of Fever](#)).
 - Oral temperature above 100.4°F (37.8°C)
 - Axillary (armpit) temperature above 99°F (37.2°C)
 - Ear (tympanic membrane) temperature above 99.5°F (37.5°C) in oral mode
 - Forehead (temporal artery) temperature above 100.4°F (38°C)Axillary, ear and forehead temperature measurements are easier to obtain than oral temperature, but they are less accurate and may need to be confirmed orally.
- Isolation- Isolation refers to the exclusion (e.g. from school) of a person with a communicable disease during the period of communicability.
- Standard Precautions- An infection control practice that considers all persons’ blood and body fluids potentially infectious for some pathogens is known as standard precautions. Thus, it is not necessary to know that a person

is a carrier of a particular disease to protect one's self from exposure. Practices include avoidance of contact with blood, body fluids and excreta; wearing gloves when contact might occur; frequent hand-washing; decontamination of blood, etc. in the environment; and frequent washing and decontamination of counters, sinks, play areas, toys, etc.

- Immunization- Schools are called upon to enforce the immunization statutes and rules regarding routine immunizations. Some vaccine-preventable disease outbreaks occurring in schools have been controlled by school-based immunization programs. Immunization programs in schools also offer protection to older students before they leave the "captive population" of the school.
- Prevention Education- Schools can model, teach and reinforce the simple habits of personal hygiene, environmental cleanliness and food-handling procedures that promote good health and minimize exposure to infectious diseases.

The format used for entry of each specific condition outlined in these guidelines includes the following topics:

Disease/ Condition	Proper and commonly used name of the disease or condition
Agent	Name of the infectious agent and its categorization (viral, bacterial, fungal, parasitic)
Clinical Description	Mechanism by which the disease is produced, typical symptoms and complications
Transmission/ Exposure	<p>Modes of Transmission</p> <ul style="list-style-type: none"> • Direct: Individual to individual, such as exchange of body fluids, exposure to droplets from the nose or mouth or hand-to-hand contact • Indirect: From an inanimate object, such as hard surfaces, tissues or dishes • Routes of Exposure <ul style="list-style-type: none"> Inhalation: Airborne (from a sneeze or cough) • Contact: Actual contact of some kind, such as contact with body fluids through an opening in the skin, mucous membrane, sexual contact or contaminated equipment • Ingestion: Swallowing • Intermediary: A vector-borne transmission, such as flea, mosquito or rodent
Contagious person, Period until after recovery	<p>Period of time that the infectious agent can be passed to another at times beginning before symptoms develop lasting</p> <p>Many infections are subclinical (do not produce symptoms), but the person is still contagious. A carrier state may occur if the agent continues to be present in a contagious form either before or after the illness.</p>

Incubation	Period of time between exposure to an infectious agent and the onset of symptoms
Diagnosis	Method by which the cause or nature of a disease or condition is determined. Clinical diagnosis is determined by physical examination; laboratory diagnosis by lab testing.
Management of Case	Steps to be taken in diagnosis and treatment of the person with the condition, including a requirement for exclusion from school
Management of Of contacts	Steps to be taken in prevention of infection in persons who have been exposed to infection
Immunization	Availability and recommended use of vaccines and impact of immunization in control of the disease
Public Health Action	Requirement for reporting of diseases or conditions to the NM Department of Health and action to be taken by the Department of Health
Prevention Education	Information on behaviors that individuals can adopt to reduce exposure to communicable diseases

School Action Summary of actions by schools to detect and manage communicable diseases in the school community

Animal or Human Bite

Condition, Disease	Bite by a human or animal
Agent	Bacterial agents include <i>Streptococcus</i> , <i>Staphylococcus</i> , <i>Pasteurella</i> , <i>Bartonella</i> (cause of cat-scratch fever); viral agents include herpes simplex, hepatitis B and C, rabies
Clinical Description	An infected bite wound may cause increasing pain and swelling, redness, warmth and discharge of pus or bloody/serous fluid. Herpes simplex infections of these wounds show blisters and ulcers.
Transmission, Exposure	Bacteria or virus present in the mouth or throat of a person or animal inoculated into a bite or scratch contaminated with saliva.

Contagious Period	Bacteria, herpes simplex and other viruses can be carried indefinitely by a healthy person or animal. Rabies virus is present in saliva for a few days before the onset of symptoms.
Incubation	Depends on agent: 1-5 days for bacteria or herpes simplex virus, several weeks for cat scratch fever, weeks or months for hepatitis B, for rabies 4-6 weeks with range of 5 days to one year.
Diagnosis	Cultures or serologic tests are required to determine the specific cause.
Management Of Case	<p>First aid for all bites using standard precautions is very important. Immediately wash the wound with water and antibacterial soap rinse thoroughly with water. Cover wound with a loose sterile dressing. Control bleeding with local pressure over a clean cloth or sterile gauze dressing. Refer to physician for further management.</p> <p>Report all animal bites to the local Animal Control Officer and provide the name, age, home address and phone number of the victim as well as a description and location of the animal. Do not kill the animal unless necessary to protect the safety of human or other domestic animals. If it is necessary to kill the animal, attempt to preserve the head and brain intact for rabies testing.</p> <p>Consider evaluation for tetanus and possible immunization.</p>
Management of Contacts biter of hepatitis B, it is	<p>For human bites, review the health and immunization records of the biter and the victim. If the victim has been immunized against hepatitis B, it is very unlikely that he/she would be infected regardless of the infection status of the biter. If preventive treatment for hepatitis B is needed, it should be given as soon as possible.</p>
Public Health Action and	<p>Report animal bites to the Animal Control Officer as described above. Confine and immunize domestic animals. Also, report handling bats and bat exposures to Animal Control Officer.</p>
Prevention stray Education	<p>Teach children to avoid unfamiliar domestic animals and all wild or stray animals. Children should not feed or handle animals. Ill or injured animals present special hazards.</p>
School Action	<p>-Apply first aid for wounds and possible shock. -Clean and bandage wound and refer victim to physician or emergency facility.</p>

- Report animal bites and stray or injured animals to the Animal Control Officer (as described above).
- Offer prevention education.

Bacterial Enteritis

Condition, Disease, Agent	<i>Salmonella, Shigella, Campylobacter, E. coli O157-H7, Yersinia enterocolitica</i>
Clinical Description	Often acute onset of diarrhea with abdominal pain/cramps, fever, nausea and vomiting, headache and malaise. Stools may be watery or mucoid and may become bloody. Potential complications: dehydration, bacteremia and distant infection, hemolytic uremic syndrome.
Transmission, Exposure	Person to person or animal to person by fecal-oral route and by contaminated food, milk or water. <i>Shigella</i> is carried only by humans. <i>Salmonella</i> is carried by many animals including reptiles and may be transmitted by contaminated eggs, meat and milk. <i>Campylobacter</i> is carried by poultry and domestic animals; <i>E. coli O157</i> and <i>Yersinia enterocolitica</i> by cattle; they may be transmitted by contaminated milk, meat and water or produce contaminated with manure.
Contagious Period	Shortly before onset of symptoms, during the symptomatic illness, and sometimes after the bacterial shedding has stopped as with <i>Salmonella</i> .
Incubation	Depends on agent: <i>Campylobacter</i> - 2-5 days, with range of 1-10 days; <i>E. coli O157-H7</i> - usually 3-4 days, range 1-8 days; <i>Salmonella</i> - 12-36 hours, with range of 6-72 hours; <i>Shigella</i> - 2-4 days, with range of 1-7 days; <i>Yersinia enterocolitica</i> - usually 4-6 days, with range of 1- 14 days.
Diagnosis	Through culture of feces to determine etiology.
Management of Case	Begin hydration with increased intake of plain water or other fluids at the onset of diarrhea. Children with other than mild to moderate watery diarrhea without fever or vomiting should be sent home. Refer for medical evaluation if fever, substantial abdominal pain, inability to maintain hydration are present or stools are bloody or contain pus. Some enteric infections may be treated with prescribed antibiotics. Any person with infectious diarrhea must avoid handling food. Mild diarrhea is not usually a cause for exclusion from school if the student practices good hygiene. Children in diapers or with poor hygiene should be excluded if environmental contamination cannot be avoided. Children may return to school or daycare when symptoms are subsiding and do not interfere significantly with school activities.

Persons with salmonella can return when under treatment or when afebrile and diarrhea has improved so it does not interfere with normal activities; as with other etiologies, mild diarrhea with good hygiene is not a cause for exclusion.

Persons with Salmonella, Shigella and E. coli O157 should not handle food until two stool cultures are negative 24 hours apart for the pathogen. Contact should not resume until diarrhea ceases and two consecutive fecal samples or rectal swabs, collected at least 24 hours apart and at least 48 hours after completion of antibiotic therapy, are negative.

Management
of of Contacts

Symptomatic cases of shigellosis should avoid recreational water until two weeks after diarrhea stops.

Public Health Action

Surveillance for secondary cases. Contacts should practice good personal hygiene, especially hand washing and careful food handling.

Report outbreaks of bacterial enteritis and possible food or waterborne outbreaks to the Department of Health (DOH). The Epidemiology and Response Division will coordinate outbreak investigation and management. Individual cases of *Salmonella*, *Shigella*, *Camphylobacter*, *E.coli O157-H7*, or *Yersinia* should be reported to DOH.

Prevention
after
Education

Prevention requires good personal hygiene, especially hand washing using the toilet and changing diapers, and before preparing food or eating; environmental hygiene includes safe food handling (separating raw and cooked food, washing utensils, counters and cutting boards).

School Action

With acute diarrhea of any cause, prevent dehydration by increasing fluid intake.

Students with fever, vomiting or significant diarrhea should be sent home. Refer persons who have diarrhea with fever, bloody or pus containing stools for medical evaluation.

For E. coli cases in daycare setting, center needs to notify parents in writing of case.

Students may return to school when afebrile and diarrhea has decreased to the extent that they can participate in normal activities.

Report outbreaks of diarrhea to the DOH, especially if there is a suspicion of food or water transmission.

Frequent hand washing should be stressed with students and staff.

Provide prevention education.

Avoid recreational water use by cases until symptoms resolved; for shigellosis symptoms, should be resolved for two weeks before resuming recreational water contact.

Bed Bugs

Disease, Agent
hemipterus

Climicidae family ectoparasites, *Cimex lectularius* and *Cimex*

Clinical Description	Bed bugs include insects from the <i>Climicidae</i> family. They are small (1mm to 7mm), oval, flat reddish-brown ectoparasites that feed on the blood of people and animals. They typically only come out to feed in dim or dark lighting. The bites cause a local hypersensitivity reaction to saliva and typically appear as erythematous, pruritic, maculopapular wheals often noticed on the body after waking up in the morning. However, some reactions may take up to 9 days to present. Lesions are typically 2mm to 2cm in diameter and are often scattered but sometimes occur in a linear pattern as the bugs bite along clothing lines and body folds. The areas most often affected are the face, neck, arms, shoulders and legs. Although secondary infections can also occur at the site of the bite, bed bugs are not known to transmit or spread disease.
Transmission	Bed Bugs are usually spread by traveling in clothing, baggage and other items from an infested area. High risk areas for bed bug infestation include accommodations with rapid turnover like motels/hotels, low income housing, shelters, public transportation and even movie theaters. They hide during the day in crevices of furniture and walls, usually found to be within eight feet of where people sleep. Transmission and infestation are NOT related to personal hygiene or cleanliness of the infested site.
Contagious Period	Bed bugs can live several months without a meal. As the insects do not infest the body, direct person-to-person transmission does not occur.
Incubation	Eggs hatch after 4-12 days and go through 5 nymphal stages before becoming an adult. They need to feed on blood at all stages after they hatch. Females lay about 5 eggs daily as adults. Adults live 6-12 months.
Diagnosis	Bites are not always obvious. The typical response is an allergic reaction after several exposures. Signs of an infestation are bed bugs

in the folds of mattresses, bedding, nearby cracks and crevices, or their exoskeletons after they molt. Rust-colored blood spots from their fecal matter and a sweet musty odor (rotting raspberries) can also be taken as evidence of infestation. Clinicians must rule out bites from other arthropods, and skin conditions such as staphylococcus infections or allergic reaction from other allergens.

Management
Of Case

Treatment for skin lesions is symptomatic and may include the use of antihistamines, topical or oral corticosteroids, topical or oral antibiotics for secondary infections and epinephrine may need to be used for more severe allergic reactions. Lesions that are uncomplicated typically heal in about one week, but more severe reactions may take 2-6 weeks to resolve. The cornerstone is prevention by eradication of the infestation.

The EPA recommends the Integrated Pest Management approach (IPM). First, a careful inspection of bedding, mattresses, luggage, bags, and nearby cracks and crevices should be done to identify the bugs. If bugs are found then a sample should be taken to show an expert if or when needed. Records of the dates and locations(s) where the bugs were found are helpful to track the lifecycle. A wide range of methods for environmental eradication exist (including pesticide and mechanical approaches – such as heat, cold, vacuuming, diatomaceous earth, isolation) although cost/adverse effects/effectiveness may vary. It is also important to clean and de-clutter the areas of infestation in order to decrease sites for the bugs to live, hide, and reproduce. Items that can be washed in the washing machine should be done with hot water. Washing alone does not generally kill bugs, so drying on a high heat setting is recommended. Items that can't go into the washer can be washed with hot soapy water, scrubbing along folds. Other items can be heated to 113°F for one hour or frozen to 0°F for at least 4 days. The EPA's IPM strategy also recommends chemical control. On the EPA website a link is available to help find pesticide products in your area that can be used: <https://www.epa.gov/bedbugs> Note that chemical eradication has been complicated by pesticide resistance. Help can also be sought by a licensed pest control professional in your area.

Management
of Contacts

Education of administration, faculty, staff, students and parents

Public Health
Action

Bug bites and infestation are not reportable conditions.

School Action

If large infestation is suspected, then school administration should be alerted and proper IPM in the school or classroom, as appropriate,

should be recommended to prevent further spread to students, faculty, staff and their families.

Note that bed bug bites in the school is very unlikely, as the insects only emerge and bite at night/in dim light. An infestation of the school may be suspected if multiple affected families with a common feature (e.g., classroom) are identified, as infestation of the classroom and transmission to the home in bags/clothing may be the source of spread.

Provide educational material to families, faculty and staff regarding

- no linkage of infestation to personal hygiene or housing cleanliness,
- recommended inspection and eradication strategies

Chlamydia, Gonorrhea

Disease, Agent	<i>Chlamydia trachomatis</i> (CT, bacteria-like); <i>Neisseria gonorrhoeae</i> (GC, bacteria)
Clinical Description	These infections are described together because there is overlap in the clinical presentation, and dual infections are common. CT and GC infect mucous membranes often resulting in inflammation with burning on urination and urethral or vaginal discharge; infections of other sites may cause sore throat, conjunctivitis, rectal pain and discharge. Complications include pelvic inflammatory disease (PID) in women and epididymitis in men. PID is responsible for an epidemic of tubal infertility and ectopic pregnancy in the US. Disseminated GC with arthritis, tenosynovitis and skin lesions occurs infrequently.
Transmission, Exposure	These infections are described together because there is overlap in the clinical presentation, and dual infections are common. CT and GC infect mucous membranes often resulting in inflammation with burning on urination and urethral or vaginal discharge; infections of other sites may cause sore throat, conjunctivitis, rectal pain and discharge. Complications include pelvic inflammatory disease (PID) in women and epididymitis in men. PID is responsible for an epidemic of tubal infertility and ectopic pregnancy in the US. Disseminated GC with arthritis, tenosynovitis and skin lesions occurs infrequently.
Contagious Period	If untreated, the infected individual may remain contagious indefinitely; after treatment, the contagious period is one to several days.
Incubation	GC is 2-5 days after exposure; CT is 7-14 days.
Diagnosis	Examination may reveal inflammation (tenderness, swelling, pus discharges) of the infected genitals or eyes. Laboratory testing by DNA

probes is highly sensitive and specific. Bacterial culture for GC is recommended.

Management of Case

Suspected cases should be referred for medical evaluation and treatment. Minors may seek care for sexually transmitted disease without parental knowledge or consent. In addition to GC and chlamydia, at risk individuals should be evaluated for other sexually transmitted diseases. School exclusion is not necessary. Gonococcal and genital or rectal chlamydial infections in young children indicate that at least inappropriate sexual contact has occurred; refer children under the age of consent and older children who give a history of sexual assault to Child Protective Services and/or other appropriate authority.

Management for of Contacts

Intimate (sexual) contacts of infected individuals should be evaluated infection and treated.

Public Health Action

Report gonorrhea and chlamydial infections to the DOH/STD Program.

Prevention Education

Postpone sexual activity and limit partners; use condoms. Nonoxynol spermicides have some antimicrobial effect and may enhance the efficacy of condoms.

School Action for STD/STI

School Nurse Role with Sexually Transmitted Diseases (STD or STI):
School Nurses can help address those problems by conveying a simple and nonjudgmental message to those students with whom they interact:

- Delay having sexual intercourse until you are ready. Despite the sexualized cultural climate in which we live, it is important to remind teenagers that not everyone is having sexual intercourse
- If you are going to have sex, use condoms to prevent STD's and reliable contraception such as birth control pills or a long-acting progesterone injection
- Limit number of sexual partners

When indicated, refer students to physician, Department of Health or school-based clinic for diagnosis and treatment.

Support school-based clinics, peer counseling, and education to increase availability and acceptability of health care services to adolescents.

School exclusion not necessary.

Consider the possibility of child or sexual abuse and refer to Child Protective Services as appropriate.

Provide prevention education to include safer sex practices.

Students should be encouraged to talk to their parents about sexual issues that concern them. The ideal situation is for teens to talk to a parent or other adult family member about their sexual feelings, intimate relationships, about becoming sexually active, birth control, and STDs. However, the reality is that many students are unwilling or unable to broach these subjects with their families. Sometimes the student simply needs encouragement to open lines of communication with a parent or relative about these subjects. Sometimes, however, it is the parent who makes it clear that they are unwilling to address these matters with their child. Some students fear parental violence or being banned from the home should their parent or family become aware of their sexual activities. In these situations, the school nurse can be of assistance in referring the student to proper medical or counseling interventions.

The School Nurse can also help students by letting them know that they are legally entitled to receive confidential medical services for family planning and STDs. Many students believe that their parents will be told that they have an STD. This is not true. Students can be referred to a School-Based Health Center (SBHC) or to a local Public Health Office where they may receive free and confidential services for the diagnosis and treatment of a STD, for prevention services such as the provisions of condoms, or for family planning services. It is most helpful for School Nurses to know the public health nurses in their communities in order to facilitate such referrals especially in a crisis or emergency situation.

When questioning a student about sexual activity, it is important that a nurse not assume that the student is heterosexual. It would be best to ask directly whether the student has sexual partners who are males, females or both. This will enable a gay, bisexual or lesbian student to disclose their activities in a more supportive and nonjudgmental context.

Students who present to the school nurse with possible symptoms of a STD should be asked about their risks for STDs and referred to a medical facility which can diagnose and treat these problems. Many STDs have no symptoms or may have only vague and non-specific symptoms, especially in females.

STD SIGNS and SYMPTOMS

Signs and symptoms may occur in areas other than the genitals, depending on the type of sexual exposure.

Male:

- A penile discharge
- Burning with urination
- Any sore, growth or ulcer on the penis or groin area

Female:

- An abnormal vaginal discharge, especially with itching, burning or odor
- A sore, growth or ulcer on the external or internal genitalia
- Pain with intercourse
- Burning on urination
- Abnormal vaginal bleeding
- Lower abdominal pains with or without vomiting, nausea or fever

Either gender:

- Unusual rashes, especially on the palms or soles
- Sore throat
- Rectal discharge and/or discomfort
- Sores, growths or ulcers on the rectal area
- Sore and swollen cervical or inguinal lymph nodes

STD Tests

Tests are available which enable gonorrhea or chlamydia to be diagnosed on a urine specimen. Contact your local Public Health Office to determine availability of these tests. These PCR (polymerase chain reaction) and LCR (lygand chain reaction) tests are extremely accurate and are well accepted by teens since they do not require a potentially embarrassing genital or speculum examination. They can be used to screen students who are sexually active and who have no symptoms; however, any student who has symptoms of a STD should be FULLY examined. These urine tests can be used during sports physicals, in school-wide screening campaigns, for girls who are having pregnancy tests or upon request in partnership with the Department of Health (DOH). All positive tests should be treated according to DOH protocols.

Public Health Services

Almost every county in the state of New Mexico has at least one public health office where people with STDs including HIV may be evaluated or referred for services. Disease Prevention Specialists provide outreach and follow up services through public health offices across the state. A school nurse can be a valuable resource for information about sexuality, contraception, and STD's. Excellent written materials, videos, and posters are available from many sources. Contact your local Public Health Office for obtaining or borrowing these materials.

Conjunctivitis (Pink-eye)

Condition, Disease, Agent *Adenovirus, Enterovirus* and many respiratory viruses; *Hemophilus influenza* and other bacteria

Clinical Description	Infectious conjunctivitis produces a variably red eye with swelling and discharge which may be watery or with mucus or pus and crusting of the eyelids. Discomfort ranges from minimal itching or a grainy sensation to substantial pain, sometimes mild photophobia (light sensitivity) or blurring of vision. In contrast, allergic conjunctivitis is usually accompanied by other signs of allergy (red conjunctiva; swollen, itching eyelids; nasal congestion, watery eye and nasal discharge, sneezing).
Transmission, Exposure	Person-to-person by contact with infected secretions from the eye or respiratory tract either directly or through contact with contaminated objects such as shared towels or eye make-up. Viral conjunctivitis is highly contagious. Bacterial conjunctivitis is somewhat less contagious and antibiotic treatment reduces the period of communicability.
Contagious Period	Bacterial – during course of infection; adenovirus – late in incubation period to 14 days after onset; enterovirus – at least 4 days after onset
Incubation	1-3 days for most bacterial infections; 4-5 days for adenovirus with average of 8 days; 12 hrs to 3 days for enterovirus
Diagnosis	Diagnosis is usually by clinical evaluation. Definitive diagnosis usually requires culture of the eye drainage.
Management treatment. of Case cause.	Refer students with conjunctivitis for medical evaluation and An outbreak of conjunctivitis requires determination of the Specific antibiotic treatment is available for conjunctivitis due to bacterial infection; symptomatic treatment is used for viral disease. Exclusion from school is usually not necessary if a child can practice frequent hand washing. In the case of outbreaks of bacterial conjunctivitis, a patient is considered non-contagious after 24 hours of antibiotic therapy.
Management of Contacts a	During outbreaks, prevention depends on scrupulous personal hygiene therapy. Outbreaks of viral conjunctivitis will usually run their course in relatively closed community such as a school. Bacterial conjunctivitis may require intensive surveillance to detect new cases as early as possible. Proper disinfection of all medical and eye examining equipment is recommended. Ensure prompt hand washing before and after eye treatment, administering eye drops, or cleansing.
Public Health Action	Report school outbreaks of conjunctivitis to the Department of Health.

Prevention Education	Hand-washing and avoidance of touching one's eyes are the most effective defense against eye and respiratory infections. Avoid sharing towels, eye makeup and other items that may be contaminated with infectious discharges. Ensure proper disposal of contaminated materials.
School Action	<ul style="list-style-type: none"> -Refer children with eye irritation or discharge for medical evaluation and treatment. -Report outbreaks to the Department of Health for assistance in management. -School exclusion is usually not necessary for isolated cases but may be necessary for control of outbreaks. Recommend exclusion of children from daycare while disease is active. -Provide prevention education.

Cytomegalies Infection (CMV)

Condition, Disease, Agent *Cytomegalovirus*

Clinical Description	Mononucleosis-like syndrome with fever, malaise, and mild enlargement of lymph nodes is common in older children and adults. Infections range from sub-clinical (usual in young children) to severe systemic infection in the fetus and immune-impaired patients; manifestations may include hepatitis, pneumonia, encephalitis and chorio-retinitis. Complications for babies born after exposure of the virus from intrauterine infection may be normal or may be growth retarded, fail to thrive, have developmental delay, visual and hearing deficits. Severe disease in immune-impaired individuals, including AIDS, may result in blindness or respiratory failure.
Transmission, Exposure	Contact with infected secretions (saliva, urine, genital secretions) or by blood transfusion. Infected infants or children can infect their mothers and other caregivers because of prolonged virus shedding in the urine. CMV infection can be sexually transmitted; genital contact is the mode of transmission for the average young adult who becomes infected.
Contagious Period	Weeks to many months. The virus becomes latent and can reactivate with periodic viral shedding in saliva and urine.
Incubation	3-12 weeks
Diagnosis	Confirmation of infection requires positive culture (urine) and/or serology (IgM antibody).
Management of Case	Most treatment is symptomatic. Treatment of life/sight-threatening infection with antiviral drugs is at least temporarily effective. Exclusion

from school is not necessary.

Management of Contacts or	Avoid contact with urine and saliva. Personnel who care for non-toilet-trained children or who come in contact with saliva or other body fluids secretions should practice careful personal hygiene, especially hand washing. Wash contaminated toys and other objects regularly. Women who are pregnant or trying to become pregnant may wish to consult their physician to determine whether they are susceptible.
Public Health Action	Reporting is not required.
Prevention Education	Hand washing is the best defense, especially after using toilet, changing diapers, assisting student with toileting and contact with saliva.
School Action	Emphasize personal and environmental hygiene and standard precautions. School exclusion is not appropriate. Provide prevention education.

Diarrhea (Acute)

Condition, Disease, Agent	Viral Diseases: Rotavirus, Norwalkvirus, Adenovirus, Coronavirus. Bacterial Agents: <i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> , <i>Vibrio</i> , <i>Yersinia</i> , <i>E. coli O157-H7</i> , <i>Staphylococcus</i> , <i>Bacillus cereus</i> , <i>Clostridium</i> . Parasitic Agents: <i>Giardia</i> , <i>Cryptosporidium</i> , <i>Entamoeba histolytica</i> . Note: See bacterial enteritis section also.
Clinical Description	Gradual to explosive onset of diarrhea with or without fever, nausea, vomiting, abdominal pain, and/or systemic toxicity.
Transmission, Exposure	Person-to-person by fecal/oral route and by contaminated food, water or milk. Environmental contamination may occur especially when changing diapers.
Contagious Period	Generally, patients are contagious while symptomatic; asymptomatic carrier states may occur.
Incubation	Usually 1-3 days for viruses, 2-4 days for bacteria, often weeks for parasites
Diagnosis	Diagnosis requires culture for bacteria and microscopic exam or antigen

testing for parasites.

Management of Case	Begin hydration with increased intake of plain water or other fluids at the onset of diarrhea. Refer for medical evaluation if fever, substantial abdominal pain, inability to maintain hydration is present or stools are bloody or contain pus. Students with diarrhea should be considered for exclusion from school primarily because of hygiene issues. Those in diapers should be considered for exclusion if environmental contamination cannot be avoided. Those excluded may return to school or daycare when under appropriate treatment (if treatment is indicated) and when symptoms do not interfere with routine school activities. Any person with infectious diarrhea should avoid handling food. Those with bacterial diarrhea should avoid handling food until stool cultures are negative for the pathogen. With vibrio infections, need to be excluded until asymptomatic with formed stools.
Management of Contacts	Testing of asymptomatic contacts may be necessary to control outbreaks. Contacts should practice good personal hygiene, especially hand washing and careful food handling.
Public Health Action	Report outbreaks of diarrhea and especially gastroenteritis suggestive of a food, milk or waterborne outbreak to the Department of Health.
Prevention the Education	Prevention requires good personal hygiene (hand washing after using the toilet and changing diapers and before preparing food and eating) and kitchen hygiene (separating raw and cooked food, washing utensils, counters and cutting boards). Community prevention requires a safe water supply and uncontaminated food and milk.
School Action	<ul style="list-style-type: none">-With acute diarrhea of any cause, prevent dehydration by increasing fluid intake.-Students with fever, vomiting or diarrhea that interferes with school activity should be sent home and excluded from school until symptoms do not interfere with routine school activities.-When cleaning up diarrhea, wearing disposable gowns is recommended.-Refer persons who have diarrhea with fever, bloody or pus-containing stools for medical evaluation.-Students may return to school when afebrile and diarrhea has improved to the extent that they can participate in normal activities. (See Bacterial Enteritis section for exceptions).-Report outbreaks of diarrhea to the Department of Health immediately, especially if there is a suspicion of food or water transmission.

- Frequent hand washing should be stressed by all school staff.
- Provide prevention education.

Fifth Disease (Erythema Infectiosum)

Condition, Disease, Agent Human parvovirus B19

Clinical Description	Symptoms are a mild fever in a minimally ill child with flushed cheeks or bright red and slightly edematous "slapped" cheeks. Later in the infection, a lace-like or lattice-like rash may appear on the trunk and extremities accentuated by heat or sunlight. Many children have a history of mild gastroenteritis or upper respiratory infection a week previously. Older children and adults typically have transient arthritis lasting a few days.
Transmission, Exposure	Person-to-person transmission by droplets or contact with respiratory secretions. Subclinical and atypical infections are very common and are contagious.
Contagious Period	Approximately one week before the rash appears; usually not contagious by the time the rash develops. Immune-impaired patients may be contagious for a prolonged period.
Incubation	4 to 20 days
Diagnosis	Clinical diagnosis of typical disease occurring in outbreaks is reliable. The diagnosis can be confirmed by serology (IgM antibody) or PCR.
Management without of Case	There is no specific treatment, but most cases in children resolve without intervention. School exclusion is not beneficial because transmission to other susceptible individuals will have occurred before the infection is recognized.
Management of Contacts	Parents of children with chronic anemia or immune deficiency and pregnant women should be notified of possible exposure. Pregnant women should avoid exposure due to potential fetal risk.
Public Health of Action	Report outbreaks and infections with complications to the Department Health.

Prevention Education	Frequent hand washing will minimize the risk of exposure.
School Action	-School exclusion is not helpful. -Notify parents of children with chronic anemia or immune deficiency and pregnant women when outbreaks occur. -Frequent hand washing should be stressed for all students and school staff.

Genital Warts

Condition, Disease, Agent Human Papillomavirus (HPV)

Clinical Description	Single or massed warty or cauliflower-like growths may be found on external genitals, urethral opening, anus, and inside the vagina. They may cause irritation. Some strains cause neoplasia of the cervix and other genital and non-genital structures.
Transmission, Exposure	Person-to-person genital contact and possibly by contaminated articles.
Contagious Period	May be indefinite but probably at least as long as lesions exist.
Incubation	2-3 months with a range of 1-20 months
Diagnosis	The typical lesion usually confirms diagnosis, but it can be excised and examined histologically. Microscopic examination of cells is an effective method for detecting cellular abnormalities associated with malignancy in women (e.g., cervical cancer screening with Pap.)
Management of Case	Treatment which may be chemical or physical destruction will decrease the amount of wart virus available for transmission. The warts may regress spontaneously within months to years. Avoidance of direct contact with lesions by others prevents transmission. Studies have indicated that the male condom does not prevent infection. School exclusion is not appropriate.
Management of Contacts	Sexual contacts of patients with genital warts should be examined and treated if indicated.
Public Health Action	Not reportable to Department of Health.

Prevention Education	Avoidance of contact with lesions on another person prevents infection. HPV vaccine is effective if initiated before exposure to genotypes covered by vaccine (ideally before initiation of sexual activity).
School Action	-School exclusion is not appropriate. -Provide prevention education as part of sex education curriculum.

Giardiasis, Cryptosporidiosis

Condition, Disease, Agent Giardia lamblia, Cryptosporidium (protozoan parasites)

Agent

Clinical Description	Diarrhea with loss of appetite, nausea, abdominal discomfort and flatulence. Patients may have altered sense of taste or a metallic taste and frequently note headache, malaise and similar non-specific toxic symptoms. The diarrhea is often chronic and/or recurrent and may alternate with constipation; symptoms may last for weeks or months. Individuals may carry the parasite without symptoms (asymptomatic carriers).
Transmission, presence Exposure	Contamination with animal and human feces has resulted in the presence of Giardia cysts in virtually all untreated surface water accounting for cases in campers and hikers who drink untreated water. Transmission by food prepared by infected individuals or those caring for diapered infants with giardiasis has resulted in outbreaks. Person-to-person transmission by caretakers and children in day care institutions has resulted in outbreaks involving substantial proportions of the children at risk. Only a small number of viable cysts (10-100) are required to establish infection, especially in persons with reduced stomach acidity. Contaminated municipal water systems have resulted in community-wide outbreaks.
Contagious Period	Variable; an untreated case may excrete Giardia cysts indefinitely.
Incubation	For giardiasis, 1 to 4 weeks. For cryptosporidiosis, incubation period 7 days, range 1-12 days.
Diagnosis	Identification of parasites by microscopic exam or antigen test (EIA) in the stool or by antigen testing. Repeated examinations may be necessary.
Management of Case	Symptomatic patients should be treated with repeat treatment using same drug if initial therapy fails. Alcohol gels do not kill cryptosporidiosis. No water play or swimming for daycare cases. As long as sanitation is adequate, there is no reason to exclude a student with giardiasis or cryptosporidium after the diarrhea stops.

Management from of Contacts	Symptomatic contacts should have stool examined and be excluded handling food. Personal hygiene habits should be monitored for adequacy.
Public Health Action	Notify the Department of Health of outbreaks. The Epidemiology and Response Division will coordinate outbreak investigation and management. In some cases, stool surveillance within a school may be indicated. Evaluation of the water supply for fecal contamination may be indicated.
Prevention Education	Avoid contact with animals with diarrhea. Animals in the school with diarrhea should be taken to the vet and isolated from children. Wash hand carefully after using the toilet or changing diapers and before preparing food and eating. Avoid ingesting untreated water. Separate diaper changing areas from play or food prep areas.
School Action	<ul style="list-style-type: none"> -Refer suspected cases for diagnosis and treatment. -Report outbreaks to the Department of Health. -School exclusion is usually not necessary unless the student is unable to maintain continence of stool. -Exclude symptomatic contacts from handling food. -Classroom animals with diarrhea should be isolated. -Provide prevention education. -For day care setting, center should notify parents in writing of a case in the daycare.

Haemophilus influenzae Invasive Disease

Condition, Disease, Agent *Haemophilus influenzae*

Clinical Description *Haemophilus influenzae* are gram-negative coccobacilli that cause a broad range of infections. The organism is transmitted person to person by respiratory droplets. The most common manifestations of invasive disease are bacteremia, meningitis, pneumonia epiglottitis, septic arthritis or other musculoskeletal disease. Signs and symptoms may include fever, headache, meningismus, cough, respiratory distress, bone or joint pain or general ill appearance. Non-encapsulated or nontypeable strains of *H. influenzae* usually cause noninvasive infections including otitis media, sinusitis, conjunctivitis, pneumonia, and bronchitis.

Transmission, Exposure	The organism resides in the human upper respiratory tract. Person-to-person transmission occurs through inhalation of respiratory tract droplets or through direct contact with respiratory tract secretions. Pharyngeal colonization is common, especially with non-type b strains. For Type B, widespread use of Hib conjugate vaccine has markedly reduced colonization rates. Colonization rates increase following recent exposure in closed populations (such as family or child care contacts of a person with disease). Colonization can persist for months.
Contagious Period	Period of communicability is undefined as the organism can be transmitted as long as it is present in the nasopharynx. Type B: For patients with invasive Hib disease, the patient is considered noninfectious 24 hours after initiation of appropriate antimicrobial therapy.
Incubation	Incubation period is unknown.
Diagnosis	<i>H. influenzae</i> can be cultured from blood, cerebrospinal fluid (CSF), synovial fluid, sputum, and pleural fluid. A gram stain of infected body fluid can demonstrate the organism and allow a presumptive diagnosis to be made. Because the type b capsular antigen can be detected in body fluids, including urine, blood, and CSF of patients, clinicians often request a rapid antigen detection test for diagnosis of Hib disease.
Management of Case	Patients with invasive <i>H. influenzae</i> must receive antimicrobial therapy. The choice of specific therapy should take into account local antibiotic susceptibility patterns of invasive isolates. Treatment decisions are made by the patient's health care provider; consultation with infectious disease specialists can be beneficial in treating invasive infections.
Management of Contacts	For close contacts of patients with invasive Hib Type b disease, prophylaxis with rifampin is indicated. Consultation with the Epidemiology Response Division of the Department of Health (505 827-0006), is recommended for specifics on who needs prophylactic treatment.
Public Health the Action	Cases of invasive <i>Haemophilus influenzae</i> disease are reportable to the Department of Health.

Prevention Education	Age appropriate vaccination is the primary way to prevent invasive Hib disease. Infants routinely begin the primary immunization series at age 2 months with subsequent vaccines at ages 4 and 6 months. A booster dose is given at ages 12- 15 months. A schedule is available
for	unvaccinated children up to 72 months (6 years) of age. Hib vaccine is not typically given after age 6 years.
School Action	<ul style="list-style-type: none"> -Refer suspected cases for diagnosis and treatment. -Report suspected cases to the Department of Health. -Ensure appropriate immunization of students, especially for those in day care or pre-kindergarten programs. -Encourage good hand washing in school. -Encourage staff and students to cover their mouth and noses when coughing or sneezing and to wash their hands afterwards.

Hand, Foot and Mouth Syndrome

Condition, Disease, Agent Groups A and B Coxsackieviruses

Clinical Description	This illness is characterized by a non-specific rash and tiny blisters in mouth and on fingers, palms of hands, buttocks, and soles of feet. Mouth discomfort may make it difficult to eat or drink.
Transmission, Exposure	Direct contact with respiratory secretions and by fecal-oral route
Contagious Period oral	Respiratory route – less than a week after symptoms appear; fecal route – several weeks after symptoms appear
Incubation	3-6 days
Diagnosis	Usually clinical diagnosis is sufficient; however, coxsackievirus can be identified by culture.
Management at of Case	Ill students unable to perform usual activities at school should not be school, especially if diarrhea is uncontrolled. Hydration should be encouraged in spite of discomfort in the mouth. School staff should be alerted to watch for symptoms in other students. Hand washing and appropriate disposal of contaminated articles are important in disease control in the school setting.
Management	Encouraging good hygiene is the most effective management along

of Contacts with preventive education. Symptomatic contacts should not be handling food for consumption by others.

Public Health Action Not notifiable

Prevention Education Prevention education should include: covering mouth when sneezing and coughing, proper disposal of contaminated articles, good hand washing technique, adequate fluid intake, and good diapering technique.

School Action

- Refer suspected cases for diagnosis and treatment.
- Report outbreaks to the Department of Health (505-827-0006).
- School exclusion is not necessary unless the student is unable to maintain continence of stool.
- Exclude symptomatic contacts and cases from handling food.
- Encourage adequate hydration.
- Provide prevention education.

Hantavirus Pulmonary Syndrome (HPS)

Condition, Disease, Agent RNA virus of Bunyaviridae family

Clinical Description The prodromal illness consists of fever and myalgia with variable respiratory symptoms, abdominal pain, vomiting or diarrhea followed by progressive cough, shortness of breath and dizziness which reflect cardio-respiratory insufficiency. May progress to respiratory failure or shock.

Transmission, Exposure Contact with aerosolized feces and urine of deer mice or saliva is the presumed mode of transmission. Indoor exposures in closed, poorly ventilated homes, vehicles and outbuildings with visible rodent infestations are especially suspect.

Contagious Period No person-to-person infections of the disease has been documented.

Incubation Approximately 2 weeks with range of 1-6 weeks

Diagnosis Clinical diagnosis is made by demonstration of specific IgM antibodies in specialized laboratory testing.

Management of Case There is no specific treatment; supportive care including intensive management of pulmonary edema, severe hypoxemia and hypotension needs occur within the first 48 hours. Patients should be rapidly

transferred to a tertiary care facility. Bed rest and early diagnosis are critical in disease outcome. School exclusion is not a consideration.

Management of Contacts None

Public Health Action Report outbreaks and infections to the Department of Health (505-827-0006).

Prevention Education Exterminate rodents in home and avoid contact with rodents. Store human and animal food in rodent proof containers, and disinfect rodent contaminated areas by spraying a disinfectant such as 10% bleach solution prior to cleaning. Eliminate food sources and limit possible rodent nesting sites. Seal holes and other possible rodent entrances (mice can squeeze through holes the size of a dime). Brooms and vacuums should not be used to clean rodent infested areas. Avoid inhalation of dust in infested areas by wearing approved respirators when cleaning these areas.

School Action -School exclusion is not appropriate.
-Provide prevention education.

Hepatitis A (Acute)

Condition, Disease, Agent Hepatitis A virus

Clinical Description Symptoms include fever, nausea, vomiting, loss of appetite or distaste for certain foods followed in 3-10 days by dark brown urine, pale feces and jaundice (yellow discoloration of eyes, skin and mucous membranes). About 70% of hepatitis A infections in young children are without symptoms or are a gastroenteritis-like illness without jaundice compared to 50% of infections in school-age children and 20% in adults.

Transmission, Exposure Person-to-person by fecal-oral mechanism both direct and indirect. Contaminated food or water may lead to outbreaks. Secondary cases occur in families and other close groups where people share food and drinks. Persons at high risk of transmission in schools are food handlers and staff who do diapering and toileting. Good handwashing is key to preventing transmission.

Contagious Period Latter half of incubation period through first week after onset of jaundice.

Incubation	Usually 5- 50 days with an average of 30 days.
Diagnosis	Exam shows jaundice with liver enlargement and tenderness as with other types of hepatitis. Laboratory testing results in elevated enzymes (SGPT/ALT), and elevated bilirubin reveals mild to severe liver injury. Hepatitis A IgM antibody is usually present at the onset of jaundice.
Management of Case	Refer students with jaundice for medical evaluation. Students in the active phase of illness may be too sick to attend school. Those with a clinical diagnosis of Hepatitis A should be excluded until one week after onset of jaundice or in absence of jaundice for 14 days after appearance of symptoms.
Management of Contacts	Hepatitis A postexposure prophylaxis is not routinely indicated when a single case occurs in an elementary or secondary school, and the source of infection is outside the school or work setting. Hepatitis A vaccine or IG should be administered to persons who have close contact with index patients if an epidemiologic investigation indicates HAV transmission has occurred among students in a school. Hepatitis A vaccine is generally recommended for post-exposure prevention within two weeks after exposure for contacts ages 12 months to 40 years. Immune globulin (IG) within two weeks after exposure is recommended for persons >40 years of age, children aged <12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom vaccine is contraindicated.
Immunization	One dose of Hepatitis A vaccine is required for child care enrollment at 16 months and older in New Mexico and is recommended for all children in high incidence communities. It can be given to children 12 months of age or older. Hepatitis A vaccine may also be recommended to school populations when one or more students have acute Hepatitis A disease.
Public Health Action	Report cases of suspected hepatitis to the Department of Health. Confirmed cases will be investigated and contacts will be given treatment. Promote vaccination of students at increased risk of exposure.
Prevention Education	Hand washing after using the toilet, changing diapers and assisting children with toileting, and before handling food and eating is the most important preventive measure. Keeping toilet and food preparation areas clean and will minimize risk of disease transmission. Use standard

precautions for blood borne pathogens.

- School Action
- Refer jaundiced students for medical evaluation.
 - Report suspected cases to the Department of Health.
 - Consider exclusion of Hepatitis A confirmed cases until one week after onset of jaundice.
 - Encourage use of IG and Hepatitis A vaccine as recommended by the Department of Health. Prophylaxis not recommended after exceeding 2 weeks of exposure.
 - Prophylaxis not necessary with a single case unless behavior defined as “close contact with a confirmed case is documented.”
 - Exclude confirmed cases from food handling.
 - Provide prevention education.
 - Use standard precautions for blood borne pathogens.

Hepatitis B and C (Acute)

Condition, Disease, Agent Hepatitis B virus (HBV) and hepatitis C virus (HCV)

- Clinical Description Symptoms may include anorexia, nausea, malaise, jaundice, arthritis and skin rashes. Complications may include liver failure, chronic hepatitis and eventual cirrhosis or liver cancer.
- Transmission, Exposure Usually by direct and indirect contact with infected blood or body fluids or objects contaminated with blood or genital secretions.
Contact

may be parenteral (injection drug use, accidental needle stick, or transfusion) or by sexual contact (rare); HB can potentially be transmitted by close family contact (e.g., sharing toothbrushes, razors, tweezers, scissors and/or nail-clippers).
- Contagious Period Anytime virus is present in blood, secretions and body fluids containing blood, in genital secretions (semen, vaginal fluid) and for many weeks before onset of symptoms. Chronic carrier states for both viruses are common.
- Incubation HBV is an average of 90 days with a range of 45-160 days. HCV is usually 36-63 days with a range of 14 days to 6 months.
- Diagnosis Serology for acute hepatitis B usually shows hepatitis B surface antigen and IgM antibody to core antigen (IgM anti-HBc). Serology for hepatitis C

is a test for total antibody (anti-HCV).

Management School Of Case	Refer students with suspicion of hepatitis for medical evaluation. exclusion is unnecessary; however, the student may be too ill to participate in school activities.
Management of Contacts Hepatitis	Contacts of Hepatitis B and C should be evaluated for risk of infection. Needle sharing, sexual contact or close family contact with an infected individual is indication for serologic testing and immunization for B.
Immunization	Infants should receive hepatitis B vaccine along with other routine immunizations. As of 2002 it is required for required for school entry in in NM. Any unvaccinated person at increased risk of hepatitis B infection should receive vaccine.
Public Health Action	Report cases to the Department of Health.
Prevention Education	Avoid contact with blood and body fluids; avoid injections, tattoos, etc. with unsterile equipment. Practice safe sex including use of latex condoms. Persons who inject illicit substances (including steroids) should be encouraged to stop or to obtain sterile needles and equipment from local PHO under the Harm Reduction Program (505) 476-3136. Use standard precautions for blood borne pathogens.
School Action	-Refer children with jaundice or other suspicion of hepatitis for medical evaluation. -Monitor immunization status of students. -Report confirmed cases to the Department of Health. School exclusion is not necessary. -Observe standard precautions for blood borne pathogens. Monitor students who are chronic carriers of HBV for behavior that may place others at risk (biting for example). -School staff identified at high-risk for exposure to HBV in the school districts blood borne pathogen exposure plan should receive Hepatitis B vaccine. -Provide prevention education. -Refer sexual contacts of an infected person to the Department of Health for testing and appropriate immunization. -Respect the right to confidentiality of infected persons.

Herpes Simplex-Genital Infection

Condition, Disease, Herpes simplex virus (HSV), type 2

Agent

Clinical Description	Symptoms include vesicles (small blisters) on the skin and/or mucus membranes that rupture quickly leaving painful ulcers and dry crusts (on skin); satellite vesicles form for several days with primary infection. There may be fever and malaise lasting 5 or more days following infection. Recurrent infections are common and usually occur in the same area as the primary lesion. Recurrent genital lesions may be initiated by trauma, emotional stress, menstruation, illness or fever. Recurrent lesions are usually smaller and heal more quickly.
Transmission, Exposure	Direct contact with genital secretions or lesion; indirect contact highly unlikely although virus remains viable on contaminated objects at least for several hours.
Contagious Period	7-50 days following onset of primary infection and typically 3-4 days after onset of recurrent episode; during asymptomatic shedding of the virus.
Incubation	2-12 days for primary infection
Diagnosis	Diagnosis is made on the clinical evaluation of lesions that are initially thin-walled vesicles and/or blisters that ulcerate on moist surfaces or crust on dry skin; laboratory testing includes cultures.
Management of Case	Refer for medical evaluation for apparent primary infection or for frequent or severe recurrences. Genital herpes in a student may be indicative of sexual abuse. Specific treatment: Oral (or in severe cases, intravenous) acyclovir is effective in shortening the duration of the primary and recurrent episodes including viral shedding. Those with frequent recurrences may suppress them with continuous oral acyclovir. Valacyclovir and famciclovir are newer medications that may be used in these cases.
Management of Contacts	Refer contacts for medical evaluation and provide prevention education.
Public Health Action	Not reportable condition
School Action	-Support school-based clinics, peer-counseling, education, and other

measures to increase availability and acceptability of health care services to adolescents.

-Affected students should not be excluded from school.

-If sexual abuse or inappropriate sexual contact is suspected, report to Child Protective Services or other appropriate authority.

-Provide prevention education to include safer sex practices.

Herpes Simplex, Non-Genital Infections

Condition, Disease, Agent Herpes simplex virus (HSV), type 1

Agent

Clinical Description	Symptoms include vesicles (small blisters) on the skin and/or mucous membranes that rupture quickly leaving painful ulcers and dry crusts (on skin), satellite vesicles form for several days with primary infection. There may be fever and malaise lasting 5 or more days. Recurrent infections are common and usually occur in the same area as the primary lesion. "Cold sores" and "fever blisters" may be initiated by trauma, emotional stress, menstruation, illness or fever. Recurrent lesions are usually smaller and heal more quickly. Herpes gladiatorum is a herpetic skin infection (usually HSV-1) usually of the trunk or extremities of wrestlers and other athletes probably resulting from salivary inoculation of minor skin abrasions. HSV-1 may spread to the eye and cause inflammation and ulceration of the cornea. Patients with eczema (rarely other types of dermatitis) may develop widespread herpetic infection of their skin lesions.
Transmission, Exposure	Contact with oral secretions of infected person with or without symptoms; contact with open lesions from which eyes or genitals may become infected.
Contagious Period	7-50 days following onset of primary infection and for typically 3-4 days after onset of a recurrent episode. Patients may have asymptomatic shedding of the virus and may be capable of spreading the infection when they have no symptoms.
Incubation	2-12 days for primary infection
Diagnosis	Diagnosis is made on clinical evaluation of the lesions which are initially thin-walled vesicles and/or blisters that ulcerate on moist surfaces or crust on dry skin; laboratory cultures to confirm diagnosis.

Management of Case Refer for medical evaluation for apparent primary infection or for frequent or severe recurrences. Oral (or in severe cases, intravenous) acyclovir is effective in shortening the duration of primary episode and reduces viral shedding. Those with frequent recurrences may be able to suppress them with continuous oral acyclovir. Valacyclovir and famciclovir are newer medications that may be used in these cases. Topical Carmex and camphor products have been used as OTC treatment.

Management of Contacts Protect students with eczema or severe immune deficiency and newborns from exposure to persons with active herpes infections. Covering lesions with clothing or a loose dressing will curtail most transmission since hand contact with lesions will be minimized. Promoting the avoidance of kissing and sharing drinking utensils with infected persons is important.

Public Health Action Not a reportable condition

School Action

- School exclusion is not necessary.
- Infected students should be taught to frequently disinfect surfaces and objects routinely contaminated with oral secretions.
- Persons in physical contact with students who have active lesions and who cannot control their oral secretions should wash their hands frequently and use standard precaution for blood-borne pathogens.
- Children with primary HSV gingivostomatitis who do not have control of oral secretions should be excluded from child day care or school until symptoms resolve.
- Exclude athletes in contact sports from competition while they have open lesions that cannot be covered.
- Disinfect sports equipment (especially mats) after practice and competition.
- Provide prevention education.

HIV Infection/AIDS (Acquired Immunodeficiency Syndrome)

Condition, Disease Agent Human immunodeficiency virus (HIV)

Clinical Description Initial infection with HIV may be subclinical or may cause an acute mononucleosis-like illness with fever, malaise, sore throat, lymph node enlargement and skin rash. Progressive symptoms may occur years later including fever, weight loss, chronic diarrhea or symptoms of opportunistic infection or cancer that occur when immune function

becomes severely impaired. HIV infects cells of the immune system and causes progressive impairment of immune function. Early combination anti-retroviral treatment has prolonged the symptom-free period, delayed the onset of AIDS and prolonged the lives of HIV infected people.

Transmission, Exposure	Contact with blood or body fluids or genital secretions of an infected person commonly by sharing injection equipment or sexual contact with an infected person. Infants born to an infected mother may be infected at birth or by breast feeding. Infection is <u>not</u> a risk with casual household, school or social contact.
Contagious Period	Early on after infected to indefinitely since infection is chronic. Periods of greatest infectivity are soon after infection with HIV and with advanced HIV/AIDS illness.
Incubation	1-3 months to seroconversion for HIV infection. 1 to many years for development of AIDS.
Diagnosis	HIV infection can be suspected by clinical symptoms and signs, but laboratory confirmation requires testing for HIV antibodies using the Enzyme immunoassay (EIA) and/or Western Blot tests.
Management of Case	Students with HIV infection may be absent from school frequently and may need medication frequently and regularly at school. They may be more susceptible to some infections and may not be completely protected by immunizations. Observing standard precautions with these students is especially important.
Management of Contacts	Casual contacts are not at risk of infection. People at risk are those who have unprotected sexual contact, share needles or syringes for injection of illicit drugs or have blood or body fluid contact with non-intact skin or mucous membranes with someone who is HIV positive. Post-exposure preventive treatment is recommended for any percutaneous exposure to blood from a person with known HIV infection. This anti-retroviral treatment must be given within 72 hours of exposure to be optimally effective. Such contacts should be referred for medical evaluation immediately. Any person at risk of HIV infection should be tested to facilitate early treatment.
Public Health Action	Report cases of HIV infection or AIDS to the Department of Health. Refer

exposures who are uninsured to the DOH/STD Program (505) 476-3136 immediately for post-exposure preventive treatment and testing.

Prevention Education	Avoid contact with blood and body fluids; avoid injections, tattoos, etc. with unsterile equipment. Practice safe sex. Persons who inject illicit substances (including steroids) should be encouraged to stop or to obtain sterile needles and equipment through the Harm Reduction Program at their local PHO. Practice standard precautions.
School Action	<ul style="list-style-type: none">-School exclusion is not appropriate (possible exceptions may occur with opportunistic infections (e.g., TB). Infected students may participate in all school activities compatible with their medical condition.-Practice standard precautions and conform to OSHA regulations.-Monitor students for behavior that may place others at risk (biting for example).-Provide prevention education.-Respect the right to confidentiality of infected persons and provide with as normal a school environment as possible.

Impetigo

Condition, Disease, Agent

Group A *Streptococci* (GAS), *Staphylococcus aureus*

Clinical Description	Flat yellow crusty or weeping lesions seen commonly on face and arms that are usually superficial at first proceeding through vesicular, pustular and encrusted stages. Impetigo can occur as a complication of abrasions, insect bites and chicken pox. Outbreaks can occur in populations with much skin-to- skin contact and a high rate of GAS carriage.
Transmission, Exposure	Direct person-to-person contact of colonized skin or lesion to skin transmission most common; respiratory droplets of asymptomatic persons.
Contagious Period	Variable, at least while lesions are actively weeping and crusting and carrier state exists; not contagious 24 hours after initiation of effective antibiotic.
Incubation	Streptococcal – 7to 10 days; staphylococcal – 4 to 10 days
Diagnosis	Clinical diagnosis is reliable but culture and sensitivity of the base of the

lesion is recommended.

Management of Case	Local skin infection is managed by cleaning the area and applying appropriate topical antimicrobial ointment under primary care provider's direction. Systemic antimicrobial therapy is usually not indicated unless an infection spreads significantly or there is impetigo in multiple family members or school attendees. A student with this disease should not return to school until 24 hours after antibiotic treatment has been started; large weeping lesions should be covered by clothing or a loose dressing.
Management of Contacts	Careful surveillance of contacts and persons living in close contact of (home and school). Improved personal hygiene will minimize the risk of infection of minor wounds. Use standard precautions for blood borne pathogens.
Public Health Action	Outbreaks of impetigo and complications of streptococcal infection should be reported to the Department of Health.
School Action	<ul style="list-style-type: none">-Refer suspected cases for medical evaluation and treatment.-Exclude infected students from school until after 24 hours of antibiotic treatment is completed.-Stress good personal hygiene and avoidance of contact with lesions by unaffected. Monitor students with lesions and cover with clothing or a loose dressing as appropriate.-Provide prevention education.-Use standard precautions for blood borne pathogens.-Properly dispose of wound dressings.

Influenza

Condition, Disease, Agent	Influenza virus (types A and B)
Clinical Description	Acute respiratory infection ("flu") characterized by sudden onset of fever, chills, headache, malaise, myalgias and respiratory symptoms including sore/scratchy throat, nasal congestion and cough, usually initially harsh and dry then becoming productive of sputum if secondary bacterial infection occurs. Abdominal pain, vomiting and diarrhea are not uncommon in children infected with influenza. Infections may be

	subclinical or very mild. Bacterial super-infections are relatively common, including bronchitis, pneumonia, otitis media and sinusitis.
Transmission, Exposure	Direct and indirect contact with respiratory secretions either by large droplets through sneezing and coughing or contact with contaminated surfaces or objects via hand inoculation of the eye and nose. May be transmitted via airborne route also.
Contagious Period	1 day prior to onset of symptoms and up to 5 days after onset. With young children, communicability can be from several days prior to onset and up to 10 days after onset.
Incubation	1-4 days
Diagnosis	Clinical diagnosis is usually reliable when symptoms are typical and influenza is circulating in the community. Viral antigen testing of nasal or throat swab can be used for point of care diagnosis. Cultures for influenza take more time for results but can identify the influenza type which is important for surveillance activities and in developing influenza vaccine. PCR testing is also used. Although not standardized, it offers the opportunity for better sensitivity and specificity.
Management fever of Case	Children and adults with clinical influenza should be sent home until (greater than 100°F) subsides. Fluids are important to maintain hydration. Bed rest, analgesics (other than aspirin) may help symptomatically. The influenza cough may persist for weeks and may require some limitation of activity, especially for those with asthma. Students should not return to school until they are afebrile (less than 100°F) after 24 hours without anti-pyretic and systemic symptoms have subsided (usually 3-7 days).
Management vaccine of Contacts	All individuals 6 months of age or older should receive influenza annually as soon as it is available. Encourage good hand hygiene and appropriate disposal of contaminated articles. Emphasis should be placed on obtaining flu vaccine for those individuals at risk for influenza complications and those who come into contact with persons at increased risk.
Immunization	Influenza vaccine changes each year, so it should be repeated annually.

Public Health Action Notify the Department of Health (505-827-0006) when outbreaks of respiratory disease appear in a school.

School Action

- Exclude students and staff with clinical influenza until afebrile (less than 100°F) after 24 hours without anti-pyretic use and symptoms do not affect participation in routine school activities.
- Report suspected outbreaks of respiratory disease to the Department of Health.
- Emphasize hand washing and respiratory droplet precautions.
- Offer influenza vaccination to students and staff through school health program.
- Consider student absenteeism and staff availability when making decisions regarding school closure when outbreaks occur.
- Provide prevention education.
- In the case of a novel influenza virus with pandemic activity, the Department of Health will provide updated guidance.

Meningitis (Bacterial)

Condition, Disease Agent Neisseria meningitidis (meningococcus), Streptococcus pneumoniae (pneumococcus)

Clinical Description Invasive bacterial disease is manifested by fever, chills, malaise, rash that may be macular/maculopapular/petechial, stiff neck, headache, vomiting, and possibly stupor or loss of consciousness. Potential complications include shock, respiratory failure, seizures, coma and death. Neurologic complications of meningitis include deafness, seizure disorders, acquired learning disabilities or developmental retardation, paralysis (cerebral palsy).

Transmission, Exposure Direct person-to-person transmission through droplet spread or contact with respiratory secretions; may be carried in the throat or nasopharynx by asymptomatic individuals

Contagious Period Healthy carriers are potentially infectious. Patients with bacterial meningitis once started on appropriate antibiotic therapy are generally non-contagious within 24 hours.

Incubation Usually 3-4 days with a range of 2-10 days

Diagnosis Examination of the spinal fluid and culture of blood and spinal fluid are required to confirm the clinical diagnosis and guide therapy.

Management of Case	Bacterial meningitis is a life-threatening illness requiring immediate hospitalization and antibiotic treatment and respiratory isolation for 24 hours after initiating therapy. The infected student may return to school at the advice of a medical provider with any limitations specified by him/her.
Management of Contacts	It is important to start surveillance of contacts of infected person for antibiotic prophylaxis. Secondary cases of <u>meningococcal disease</u> may occur in contacts of any age, so prophylaxis is indicated for face-to-face, household and close social contacts within the previous 7 days; this may include close friends at school. All young contacts in child care should be considered for prophylaxis. Secondary cases of <i>Haemophilus influenza</i> and pneumococcus tend to occur in contacts less than 5 years of age within the family. Secondary cases are uncommon in classroom or school contacts. Surveillance of household contacts for invasive <i>Haemophilus</i> disease should include exposed unimmunized or incompletely immunized children.
Immunization	Infants should receive <i>Haemophilus influenzae</i> (Hib) vaccine according to the recommended schedule. Meningococcal vaccine may be recommended for community or school outbreaks.
Public Health Action Epidemiology	Report cases immediately to the Department of Health; the and Response Division will coordinate contact assessment and implementation for antibiotic prophylaxis and surveillance.
School Action	<ul style="list-style-type: none"> -Refer students with suspected meningitis for emergency medical care. -Report suspected cases to the Department of Health. -Assist the Department of Health in identification and prophylaxis or vaccination of contacts as well as communication with parents and staff. -Provide prevention education. -Exclude infected students until a release to return is provided by the primary care provider and accommodate students with any specified limitations.

Meningitis (Viral or Aseptic)

Condition, Disease, Agent Enteroviruses (ECHO and Coxsackie), other viruses

Clinical Description Symptoms include fever, headache, stiff neck, back pain, vomiting,

malaise, drowsiness, altered consciousness, prostration and possibly rash. Although enteroviral infections can occur year-round, they are most common in summer and early fall. Seizures, coma and neurologic complications can occur. Children with suspected meningitis represent a medical emergency and should be immediately evaluated by a healthcare provider and excluded from childcare until the cause of the meningitis is identified.

Transmission, Exposure	Direct person-to-person infected secretions from throat or nose; fecal-oral contamination for many enteroviruses.
Contagious Period	Weeks to months depending on causative agent; most infectious during stage of illness.
Incubation	Variable depending on virus, 3-6 days for enteroviruses
Diagnosis	Examination of spinal fluid and spinal fluid culture can help to confirm clinical diagnosis.
Management of Case	There is no specific treatment. Supportive treatment is provided as indicated by the specific clinical indications. When the infected student has recovered, he/she may return to school with limitations according to primary care provider's recommendations.
Management school of Contacts	Other cases of enteroviral infection are likely to occur in the same or other group setting, but it is not likely that there will be other cases of meningitis or other serious illness. Contacts with symptoms suggestive of meningitis should be referred for medical evaluation immediately. Good hand washing practices by all should be enforced at school.
Public Health Action	Not required
School Action	-Refer suspected students for medical evaluation. -School exclusion is not necessary unless prescribed by medical provider. -Provide prevention education to include good hand washing practices.

MRSA (Methicillin-Resistant Staphylococcus Aureus)

Condition, Disease, Agent Staphylococcus aureus

Clinical Description	MRSA is a type of <i>Staphylococcus aureus</i> that is resistant to some antibiotics including methicillin (note: methicillin is not used for therapy, but is used to indicate resistance to common antibiotics such as amoxicillin or cephalexin). “Staph” aureus is found on the skin of many people, but does not cause infection or illness until these bacteria get into a cut, scrape or other break in the skin. Many people carry staph bacteria on their skin but have no symptoms of disease. Infections can look like a pimple, rash, boil or open wound.
Transmission, Exposure	Direct skin-to-skin contact such as holding hands or engaging in contact sports with hands being most common instrument of transmission; indirect through contact with items touched or used by infected person or staph carrier such as razors, towels, athletic equipment, clothing.
Contagious Period	As long as bacteria is carried on the skin.
Incubation	Variable and indefinite
Diagnosis	Isolation of <i>S. aureus</i> from culture is definitive.
Management of Case	Early treatment can help prevent MRSA infection from worsening. All skin lesions should be covered with clean, dry pads. The infected student may need to avoid certain activities such as contact sports or gym activities so that lesion dressing remains intact and the body can heal. Gloving, hand washing and proper disposal of contaminated materials is essential in care delivery. Prescribed antibiotics should be taken as directed; provider should be contacted if improvement is not evident in a few days. Students or staff infected or with suspect infection need <u>not</u> be excluded from school.
Management of Contacts	Good hand washing practices and observation are important for known contacts. There is no vaccine or preventive medication available for MRSA exposure.

Public Health Action	Notify Public Health (505-827-0006) if more than one diagnosed case of MRSA is suspected in the same school. Support services are available through Public Health as well as follow-up services if more than one MRSA case is suspected in the same school.
Prevention Education	Wash hands frequently with soap and water; keep cuts and scrapes clean with soap and water and covered with dry pads; do not pick, touch or scratch skin lesions or touch another's sores/lesions; avoid skin contact and sharing personal items with anyone suspected of having MRSA; to prevent antibiotic-resistance from occurring do not request antibiotics for colds or other viruses and take all antibiotics prescribed even if symptoms disappear before finishing the medication.
School Action Health.	<ul style="list-style-type: none"> -Do not exclude students or staff with MRSA infections or suspected infections. -Alert parents of school cases only after collaboration with Public Health. -Monitor cases and suspected cases. -Encourage frequent hand washing and proper coverage of all skin wounds. -Ensure access to sinks, soap and clean towels and/or alcohol-based sanitizers. -Infected students may need to avoid gym activities and contact sports to prevent wound dressings from coming off. -Clean athletic equipment daily if used by more than one individual. -Follow standard precautions when providing care for infected student. - Report <u>more than one case</u> to Public Health (505-827-0006).

Mononucleosis (Infectious Mononucleosis, Mono)

Condition, Disease, Agent Epstein-Barr virus (EBV)

Clinical Description	Persons with "mono" usually have fever, sore throat which may be severe, splenomegaly and enlargement of cervical lymph nodes. Malaise and fatigue may be severe and prolonged. Symptoms may return after a period of convalescence. Children infected during adolescence or young adulthood tend to have more typical disease.
Transmission, Exposure	Direct transmission and indirect exposure through person-to-person contact with saliva and by droplets contaminating hands or objects. Kissing facilitates disease spread. The virus may also be transmitted by blood transfusion.

Contagious Period	Viral shedding begins before onset of symptoms; periodic shedding occurs even after complete recovery for as long as a year or more and is probably the source of most new infections.
Incubation	4-6 weeks
Diagnosis	Clinical diagnosis of typical illness is reliable. Laboratory diagnosis is by typical findings in the blood (increase in lymphocytes with many "atypical lymphocytes"). Serologic tests are usually positive by the second week of illness.
Management of Case	Because of a small risk of rupture of the enlarged spleen, infected students should be excluded from contact sports until the spleen has returned to normal size. There is no specific treatment for "mono". Infected students who are well enough to attend school should not be excluded.
Management of Contacts	Because the virus is present in saliva, hand washing and washing of objects contaminated with saliva should reduce transmission from person to person. Discourage engaging in activities involving exchange of saliva with infected individuals.
Public Health Action	Not a reportable condition.
School Action	-Refer children with suspected infectious mononucleosis for medical evaluation. School exclusion is not appropriate unless student is unable to participate in routine activities. Exclude student with enlarged spleen from contact sports until medical clearance is received.

Mumps

Condition, Disease, Agent Mumps virus, RNA virus

Clinical Description Mumps is an acute viral infection characterized by fever and enlargement of the salivary glands. Pancreatitis, orchitis in males, oophoritis in females, and encephalitis may occur, but rarely. Complications are more common in adults.

Transmission, Exposure	Direct airborne transmission or respiratory droplets or direct contact with saliva of infected person.
Contagious Period	6-7 days before until 9 days after swelling begins
Incubation	16-18 days after exposure with a range of 12-26 days
Diagnosis	Clinical diagnosis of symptomatic mumps is reliable in outbreaks; however, isolated cases of salivary gland swelling may be caused by other viruses, blockage of a salivary duct or bacterial infection. Virus isolation and serology including detection of IgM antibody are recommended. Confirmation of the disease is important before extensive surveillance or immunization is undertaken.
Management no of Case	Refer students with suspect mumps for medical evaluation. There is specific treatment; most school-age children only have mild illness. School exclusion is for 5 days after onset of swelling.
Management of Contacts	Contacts of mumps cases who have not had two doses of mumps vaccine should be immunized preferably with MMR vaccine. Contacts with no prior history of mumps illness or immunization should be excluded from school from the 12 th through 25 th day after exposure and should be considered for mumps vaccine. Testing adults to determine susceptibility should be considered before vaccination with MMR since a majority of adults without a history of mumps will be immune because of subclinical or unrecognized infection. Mumps in adults is more likely to be severe with systemic involvement.
Immunization	All students are required to have two doses of MMR vaccine before school entry.
Public Health Action School Action	Report cases and suspect cases to the Department of Health. -Refer students with enlarged salivary glands for medical evaluation. -Exclude students with confirmed mumps for 9 days following onset of swelling. -Exclude susceptible contacts from 12 th through 25 th day after exposure. Excluded students can be readmitted immediately after immunization.

-Exclude students who are exempted from mumps immunization until at least 26 days after onset of swelling in the last contact case of exposure.

Norovirus

Condition, Disease, Agent Norovirus, RNA virus

Clinical Description Noroviruses are the leading cause of acute gastroenteritis which is sometimes referred to as “stomach flu” or “winter vomiting disease”. Illness is generally short-lived and self-limiting. Illness is characterized by acute onset of vomiting, watery, non-bloody diarrhea with abdominal cramps, and nausea. Some persons may experience only vomiting or diarrhea. Muscle aches, malaise, and headache are also commonly reported. Low-grade fever may be present. Symptoms usually last 24 to 60 hours. Dehydration is the most common complication. Up to 30% of infections may be asymptomatic.

Transmission, Exposure Noroviruses are highly contagious. These viruses can remain viable and infective on surfaces for up to two weeks. Outbreaks are most commonly spread person to person. Humans are the only known reservoir. Noroviruses are found in the stool or vomitus of infected people or on contaminated surfaces not properly cleaned and disinfected.

Contagious Period Persons are most contagious with the greatest amount of viral shedding during the illness and for 72 hours after symptoms end.

Incubation Generally 24 to 48 hours after ingestion of the virus; however, symptoms can appear as early as 12 hours after exposure.

Diagnosis Diagnosis relies on the detection of viral RNA in stools or vomitus of affected persons by use of reverse transcription-polymerase chain reaction (RT-PCR) assays.

Management of Case Treatment is supportive with an emphasis on maintaining hydration. Most people recover completely within 1 to 2 days, with no long-term complications of norovirus illness.

Management of Contacts Persons with suspected norovirus infection should be managed with standard precautions with careful attention to hand hygiene

	practices. Contact precautions should be implemented when caring for diapered or incontinent persons.
Public Health Action	Individual cases are not reportable, but outbreaks are often reported to the Department of Health.
Prevention Education	Prevention requires good personal hygiene (hand washing after using the toilet and changing diapers and before preparing food and eating).
School Action	-With acute diarrhea of any cause, prevent dehydration by increasing fluid intake. -Students with fever, vomiting or diarrhea that interferes with school activity should be sent home and excluded from school until symptoms do not interfere with routine school activities. -When cleaning up diarrhea, wearing disposable gowns is recommended. -Students may return to school when afebrile and diarrhea has improved to the extent that they can participate in normal activities. -Report outbreaks of diarrhea to the Department of Health immediately, especially if there is a suspicion of food or water transmission. -Frequent hand washing should be stressed by all school staff.
Additional	and more intensive cleaning measures, with a focus on use of agents with appropriate virucidal activity, may be necessary to prevent transmission. -Provide prevention education.

Pediculosis (Head Lice)

Condition, Disease, Agent Pediculus humanus capitis, parasitic arthropod

Agent

Clinical Description Head lice are parasitic insects with six legs and no wings. They hold
onto
head hair with specially adapted claws and move swiftly on dry hair.
They
feed by biting and sucking blood through the scalp. Infestation of head
lice occurs in the hair. They very often cause itching but this is not
always
the case, particularly when newly arrived to the head. Most cases are
light- only about 10 lice on the head. Lice will not leave the scalp
unless

they are dead or dying. Lice and their eggs are well hidden on the head.
Healthy lice tend to stay close to the scalp as it is their feeding ground.

Transmission, Exposure	Lice are spread by close head to head contact with someone who has head lice. Lice cannot jump, fly or swim, but spread by climbing rapidly from head to head (directly or through sharing of fomites such as hats, hairbrushes, hair ties). Anyone with hair on the head can get lice. Head lice that are off the head are usually damaged and cannot crawl back on a head. Survival off the scalp for more than 48 hours is very unlikely.
Contagious Period	Full grown lice move frequently between heads when they have the opportunity. Lice mature to the adult stage approximately 9-12 days after hatching. Lice nits (lice eggs) remain on the head where they hatch for a minimum of 6 days.
Incubation	Eggs hatch in 7-10 days and reach maturity in 6-14 days. At maturity they are fully capable of reproduction.
Diagnosis	Inspect for live crawling lice. Proper diagnosis of head lice is the most important step in controlling infestation. Please see CDC for pictures of live lice. Most persons with head lice will have between 10 and 20 lice.
Management of Case	Two methods of treatment are commonly used: 1. Use of chemicals (pediculicides) to kill the lice and nits: Chemical treatment has been the first line of defense for many years; consequently, lice have become resistant to the insecticide. Pediculicide resistance is approaching 50%. Educate the parent on the proper regime by following the manufacturer's recommendations. All household members should be checked for live lice and everyone with lice in the household should be treated at the same time. 2. Non-chemical treatment: Involves applying hair conditioner to wet washed hair; then combing with a louse comb (special fine toothed comb). The caregiver sections off the hair and removes the lice a section at a time combing from the scalp out. Rinse and dry the hair once the entire head has been combed. Repeat this process every two days over a 10 day period. Recheck the head for re-infestation once a week for one month. If adult lice are found, then restart the combing process. Check all household members for live lice and nits and treat using this same regime. Change or launder pillow cases exposed to lice within the last day. No extra household cleaning is necessary.

Children, when diagnosed with head lice, should be sent home from school at the end of the day and return after the first treatment (either method) has been completed. Educate parents on treatment and management methods.

Excluding any child from school due to head lice or nits is unjustified.

In the case of apparent resistance to topical treatment, i.e. when a child has been treated twice with topical agents and lice persist, consider referral to the child's primary care provider for a prescribed medication.

There are many other treatment options that are described on the internet – effectiveness (as well as risk) varies and should generally not be encouraged.

Management
parents
Contacts

School wide head checks are no longer recommended. Educating and teachers on head lice is essential.

Public Health Action

Pediculosis is not a reportable condition.

School Action

-According to the American Academy of Pediatrics, “no-nit policies in schools are detrimental to children, causing students to lose time in the classroom, causes an inappropriate use of the school nurse’s time for lice screening, and causes a response by parents that is out of proportion to the medical significance”. (See Red Book in reference section of chapter).

-At the end of the school day send students who have lice home. They may return to school after the first treatment is completed.

-Provide educational material including treatment recommendation to parents and recommend treatment options and regimes to follow for each method of treatment.

-Maintain confidentiality of affected student and his/her family.

-Mass screening of children for head lice has been shown to be ineffective.

-Consider referral to the child’s primary care provider for a prescribed medication in the case of apparent resistance to topical treatment.

Lice Identification Chart

Lice Management Algorithm for Schools

Pertussis (Whooping Cough)

Condition, Disease, Agent Bordetella pertussis, Bordetella parapertussis

Clinical Description Pertussis has three stages: the catarrhal stage with sore throat, coryza, mild cough and low grade or no fever lasts 1-2 weeks; the paroxysmal stage with increasingly severe spasms of cough with post-tussive whoop or vomiting lasting 2-6 weeks; and the convalescent stage with gradual lessening of coughing spasms disappearing in 2-6 weeks. Infants under six months of age may have apnea but no whoop. Complications may include pneumonia, seizures, encephalopathy and death. Less serious complications are otitis media, anorexia and dehydration.

Transmission, Exposure Direct person-to-person by respiratory droplets or by direct contact with respiratory secretions from infected person.

Contagious Period From onset of symptoms until 3 weeks of coughing; most contagious period is the first two weeks of cough.

Incubation 7-10 days with range of 4-21 days

Diagnosis Laboratory diagnosis is by PCR swabbing (polymerase chain reaction). Mild cases may be difficult to recognize unless they occur in contacts of typical disease.

Management of Case Refer persons with severe or persistent cough for medical evaluation; persistent cough is a cough of more than 7 days duration. Even though they are still coughing, people are no longer considered infectious after 5 days of antibiotics. The cough may persist for weeks or months even after appropriate treatment. Students may need restriction of activity if they have exercise-induced spasms of coughing. Exclude suspect or confirmed cases until after 5 days of antibiotic treatment.

Management Contacts includes Identify close contacts and refer them for preventive treatment of The focus of identification and prophylaxis of high risk contacts infants, pregnant women, immunocompromised individuals and vaccine exemptors. Close contacts include those with direct face-to-face exposure within 3 feet of a coughing case, direct contact with respiratory, oral or nasal secretions or sharing confined space for a minimum of 1 hour with coughing case. All students 6 years of age or

younger who have not completed the primary series or did not receive a booster dose after 4 years of age should receive a pertussis vaccine booster. All students 7 years of age and older who have not completed their primary pertussis booster series should receive a dose of Tdap; Conduct surveillance for additional cases in the setting where a case exposed others for three weeks from the first date of exclusion of the case. Exclude cases while taking antibiotics for 5 days.

NMDOH will evaluate for high risk contacts in the classroom situation before advising prophylaxis for classmates.

Immunization

For school entry students are required to have completed at least 4 doses of pertussis-containing vaccine with one dose received on/after 4th birth-day. One Tdap is required for 7th-12th grade entry and is recommended for adults younger than 64 years if more than 5 years since last pertussis-containing immunization.

For case(s) occurring in a school, assess the vaccination status of all contacts and students in the same school as the case:

- Exposed children 6 years of age who have received their third dose of DTaP 6 months or more before exposure should be given a 4th dose.
- Exposed children 6 years of age who received all four primary doses before their fourth birthday should receive a fifth (booster) dose of DTaP.
- Persons 7-9 years of age who have not been fully vaccinated against pertussis should receive Tdap.
- Those 10 years of age or older who have not received Tdap should be immunized with it.
- No minimum interval between doses of Td and Tdap.
- Recommendation is that pregnant women with every pregnancy receive Tdap during the late 2nd or 3rd trimester (> 20 weeks gestation). Alternatively, if not administered during pregnancy, Tdap should be administered immediately postpartum.
- All adults should have documentation of one dose of Tdap. If adults have not received one dose of Tdap, they should receive it as soon as possible, particularly those who will have contact with infants
- Vaccine exemptors within affected schools should be identified and reported to NMDOH for exclusion determination.

Public Health Action Report suspected and confirmed cases to the Department of Health. The Epidemiology and Response Division will coordinate testing, contact identification and treatment.

- School Action
- Exclude cases and symptomatic contacts until completion of 5 days of antibiotic treatment or until three weeks after onset of cough if not treated.
 - Refer suspected cases for medical evaluation and treatment immediately and monitor school for additional cases for 21 days after last contact with known case(s).
 - Report confirmed and suspect cases to Department of Health (505-827-0006) who will coordinate all follow up and parental notification.
 - Review immunization status of students and staff to identify susceptible contacts.
 - Provide access to immunization.

Plague

Condition, Disease, Agent Yersinia pestis (bacteria)

Clinical Description Plague is a bacterial infection transmitted by fleas from rodents to humans. The most common form is bubonic; less common forms are septicemic and pneumonic.

Bubonic plague: The primary site of inoculation may resemble an infected insect bite or the site may be unapparent. The regional lymph nodes become enlarged and exquisitely tender (bubo). Most patients have fever and non-specific flu-like symptoms (vomiting, diarrhea). Untreated patients with bubonic plague may develop (secondary) bacteremia. Untreated bubonic plague has a case fatality rate of 50-60% and is the most common form of plague.

Septicemic plague: High fever with malaise and other non-specific symptoms occur, but no bubo is present to clinically distinguish symptoms from sepsis due to other agents.

Pneumonic plague: This condition may develop following bacteremia with cough and production of bloody sputum and can be spread person-to-person via airborne transmission. Untreated pneumonic plague is almost always fatal.

Plague pharyngitis: May resemble tonsillitis.

Plague should be considered in any patient who presents with fever and acute lymphadenitis and resides in a known plague area. Plague is treatable but has high fatality rate with inadequate or delayed treatment.

Transmission, Exposure

Humans infected by:

- bite from a plague infected flea,
- bite or contact with respiratory secretions from a person or animal, often a domestic animal that has pneumonic plague,
- contact with tissues from an infected animal such as a rodent, rabbit or coyote,

- ingestion of raw or undercooked meat of infected animal.

Contagious Period	Pneumonic plague - from onset of cough until completion of several days of antibiotic therapy. Bubonic and septicemic plague- usually not contagious.
Incubation	2-8 days for bubonic plague; 1-6 days for human-to-human transmission of pneumonic plague.
Diagnosis	Plague may resemble wound infections with secondary lymphadenitis; any patient presenting with these symptoms and living in known plague area should be evaluated for plague. Cultures should be obtained from blood and apparent sites of infection (such as the affected lymph node).
Management of Case	Pneumonic cases and contacts should be treated with antibiotic therapy and kept under surveillance. They should be excluded from school until completion of 48 hours of antibiotics and there is favorable clinical response. School exclusion of bubonic and septicemic plague cases is not necessary (but absence until recovery is likely due to the severity of symptoms).
Management of Contacts	Any suspect plague case should be referred immediately for medical evaluation. Contacts of pneumonic plague case should be given antibiotic prophylaxis immediately and be kept under surveillance for development of illness. Close contacts of all plague patients may have had the same environmental exposure and should be considered for prophylaxis or surveillance.
Public Health Action	Report cases or suspect cases to Department of Health (505-827-0006).
Prevention Education	Reduce rodent activity near homes and schools; control fleas on domestic animals; avoid contact with dead or ill animals; rodent proof houses and

outbuildings; wear rubber gloves when handling wild game; stack wood piles 12 inches above ground and 100 feet away from house.

School Action

- Refer possible cases immediately for medical evaluation.
- Exclude from school pneumonic cases until completion of 48 hours of antibiotic; do not exclude septicemic or bubonic cases unless ill.
- Assist in identifying close contacts; contacts need not be excluded from school unless they are symptomatic of pneumonic plague.
- Report to DOH rodent activity (especially prairie dogs and ground or rock squirrels) on or near school grounds as well as unusual numbers of dead rodents in the area.

Rubella (German Measles, Three-Day Measles)

Condition, Disease, Agent Rubella virus

Clinical Description A diffuse maculopapular rash is often the first sign of rubella disease; however, a mild prodromal illness, with low-grade fever, malaise, coryza, conjunctivitis and headache may occur 1-4 days before the rash appears. It appears first on the face but spreads rapidly over the entire body. The rash consists of small, flat (nonpalpable), reddish-pink spots that rarely last more than 3 days. Adolescents and adults with rubella may have arthritis affecting a few joints and lasting a few days or weeks. Congenital rubella varies in severity from subclinical to combinations of microcephaly, mental retardation, cataracts, deafness, and heart defects.

Transmission, Exposure Droplet or contact transmission by nasal pharyngeal secretions or urine from congenital rubella cases; crossing placenta and infecting fetus in infected pregnant women.

Contagious Period A few days before the rash develops to 5 to 7 days after the rash begins;
1 year or longer after birth in congenital rubella cases for urine transmission.

Incubation Usually 16 to 18 days with range of 14- 23

Diagnosis Case definition consists of: 1) acute onset of maculopapular rash, 2) temperature greater than 99.0° F, 3) arthralgia/arthritis, lymphadenopathy, or conjunctivitis, and 4) laboratory confirmation. Confirmation by serology is essential. Virtually all patients will have specific rubella IgM antibody during the acute illness. Confirmation of acute infection may require paired sera.

Management There is no specific treatment. School exclusion is appropriate for 7 days

of Case	after onset of rash.
Management of Contacts	<p>Contacts known to be susceptible should be immunized immediately. Adult contacts born before 1957 are presumed to be immune; others may be tested for immunity if test results will be available within 24 hours (so that immunization will not be delayed). Pregnant women should contact their medical provider immediately. Exclusion from school not appropriate.</p>
Immunization	<p>Two doses of rubella (MMR) vaccine are required for school entry. Pregnant females should not be vaccinated but may be considered for IG prophylaxis. All age-appropriate females should be counseled to avoid pregnancy for 3 months after immunization.</p>
Public Health Action	<p>All suspect and confirmed cases should be reported to the Department of Health immediately (505-827-0006). Identification and immunization of susceptible contacts will be coordinated by the Epidemiology and Response Division.</p>
School Action	<ul style="list-style-type: none"> -Refer all suspected cases for medical evaluation. -Exclude infected students from school until 7 days after onset of rash. -Do not exclude contacts unless symptomatic. -Enforce 2-dose MMR immunization requirement for school entry. -Immediate notification of NM Department of Health of suspect and confirmed cases. -Provide prevention education to include risk of immunization regarding pregnancy and concerns for pregnant contacts.

Rubeola (Measles)

Condition, Disease, Agent Rubeola virus

Clinical Description Acute onset of fever coryza, non-exudative conjunctivitis, cough and rash which usually begins on the second or third day of illness characterizes rubeola. The rash begins on the face or neck under the hairline or behind the ears and progresses to the trunk and extremities over 1-2 days. The rash is red, maculopapular with some clustering which tends to become confluent on the face. Koplik's spots may be present inside the mouth. Potential complications include otitis media, pneumonia, croup, diarrhea and encephalitis. Immune-impaired children and adults usually have more severe illness and a higher risk of complications.

Transmission, Exposure	Droplet and airborne transmission of respiratory secretions that may circulate in the air up to 4 hours after infected person leaves a room. <u>Measles is one of the most highly communicable infectious diseases.</u>
Contagious Period	1-2 days before onset of initial symptoms; 3-5 days before onset of rash until 4 days after appearance of rash.
Incubation	Average of 10 days from exposure to onset of rash with a range of 7-18 days or 8-12 days from exposure to onset of symptoms; 14 days from exposure until rash appears.
Diagnosis	Clinical evaluation with history of symptoms is useful with confirmation by lab culture of respiratory secretions.
Management of Case	Refer suspect cases immediately for medical evaluation. There is no specific treatment. School exclusion is appropriate until 4 days after rash onset.
Management of Contacts	Immunization records should be reviewed to determine susceptible contacts and access to immunization should be provided within 72 hours of exposure. Immune globulin may be given to susceptible contacts who should not receive vaccine, including pregnant females and those who refuse vaccination. Susceptible contacts should be excluded from school until 21 days after rash onset in the last case contact unless they receive a dose of measles vaccine within three days of exposure. Susceptible individuals who were given post-exposure preventive treatment with immune globulin should be excluded until 21 days after rash onset in the last case contact.
Immunization	Two doses of measles vaccine (MMR) are required for school entry.
Public Health Action	All suspect and confirmed cases should be reported to the Department of Health immediately (505-827-0006). Identification and immunization of susceptible contacts will be coordinated by the Epidemiology and Response Division.
School Action	-Refer suspect cases immediately for medical evaluation. -Report confirmed and suspected cases to NM Department of Health.

- Exclude cases from school until 4 days after onset of rash.
- Review immunization records to identify susceptible individuals.
- Exclude susceptible individuals until 21 days after onset of rash in the last case.
- Provide prevention education to include risks regarding pregnancy.

Scabies

Condition, Disease, Agent	Sarcoptes scabiei
Clinical Description	Lesions caused by infestation of scabies mites are characterized by an intensely pruritic, red, vesiculopapular eruption caused by adult female mites burrowing under the skin to lay eggs. The scabies burrow appears as a gray or white threadlike line. Lesions are commonly found on finger webs, wrists and elbows, axillary folds, belt line; in men on thighs and external genitalia; and women on nipples, abdomen and lower portion of buttocks.
Transmission, Exposure	Direct, prolonged contact, including sexual contact, with infected skin
Contagious Period	Until mites and eggs are destroyed by treatment.
Incubation	Four to six weeks in people without previous exposure. People who have been previously infested develop symptoms 1-4 days after re-exposure.
Diagnosis	Exam shows typical excoriated papules and burrows. Microscopic exam of skin scrapings shows the mite, eggs, and fecal deposits.
Management of Case	Infested students should be excluded from school until initial treatment is completed. Treatment with nonprescription formula containing permethrin is recommended; lindane solution is an alternative if retreatment is necessary but it is more toxic. Clothing and bed linens used by the patient in the three days prior to initiation of treatment should be laundered in hot water. Items that cannot be washed should be isolated in plastic bags for 10-14 days. The mites cannot survive more than three days without skin contact. Environmental disinfection is unnecessary and unwarranted.

Management of Contacts	Close contacts should be examined for signs of infestation. Household contacts are usually infested and need treatment; therefore, all members of household should be treated concurrently to prevent reinfestation. Manifestation of infestations can appear as late as 6 weeks after exposure, during which time infected person can transmit scabies.
Public Health Action	Not a reportable condition.
School Action	-Exclude infested students at the end of the school day until they have received initial treatment. -Examine close contacts for infestation. -Provide education including treatment recommendations.

Streptococcal Infections (Strep throat)/Scarlet Fever

Condition, Disease, Agent Streptococcus pyogenes Group A

Clinical Description	Classic strep throat is characterized by severe sore throat, malaise, toxicity, fever, tender lymph nodes in the neck, and a purulent exudate on the tonsils. Untreated strep throat develops complications including otitis media, sinusitis, and abscesses on the tonsils and pharynx. Scarlet fever is a strep throat plus a characteristic fine, sand-papery erythema rash prominent on the cheeks, trunk and extremities but less evident around the mouth, inside elbows and behind knees. Invasive streptococcal infections may follow wound infections including infected varicella lesions or respiratory infections.
Transmission, Exposure	Transmitted person-to-person mainly via respiratory secretions; outbreaks from food or milk contamination; recurrent disease from ongoing contact with carriers.
Contagious Period	Weeks to months; 10-21 days after acute illness or until 24 hours after treatment initiated.
Incubation	2 to 5 days for pharyngitis
Diagnosis	Rapid strep test from throat swab or throat culture supports clinical evaluation.
Management of Case	Suspect cases should be referred for medical evaluation. Referral is urgent if high fever, marked toxicity or respiratory distress is present. School exclusion recommended until at least 24 hours after antibiotic

treatment is initiated.

Management of Contacts	For sporadic cases of uncomplicated streptococcal infection, surveillance for additional cases is adequate.
Public Health Action	Report cases of scarlet fever, streptococcal toxic shock syndrome or invasive streptococcal disease and outbreaks of streptococcal disease within schools to Department of Health (505-827-0006).
School Action	-Refer suspect cases for medical evaluation and treatment. -Exclude cases until the infected individual has been on antibiotic treatment for at least 24 hours. -Report complicated cases and outbreaks of streptococcal infection to the Department of Health.

Tetanus

Condition, Disease, Agent Clostridium tetani

Clinical Description	Tetanus, or 'lockjaw', is caused by a neurotoxin produced by <i>Clostridium tetani</i> . Although tetanus occurs worldwide it is rare in the US due to immunization. Tetanus infection usually occurs from a skin wound. The wound that harbors <i>C. tetani</i> frequently is a minor one. Evidence of frank wound infection is likely to represent infection by other bacteria. Localized tetanus consists of painful tonic muscle spasms in the area of a wound and can precede generalized tetanus which presents with muscle spasms. Muscle spasms often produce trismus (inability to open the mouth fully or at all).
Transmission, Exposure	Contact of a wound in the skin with material containing tetanus spores. Contaminated wounds, deep wounds, or wounds with devitalized tissue are at greatest risk. Tetanus spores are everywhere in the environment.
Contagious Period	Not communicable from person to person.
Incubation	Most cases occur within 8-10 days of exposure; range of 3-21 days.
Diagnosis	The diagnosis should be made based on clinical presentation and exclusion of other possibilities. Culturing of wounds is low yield; treatment

should not be based on laboratory evidence.

Management of Case	Tetanus is a medical emergency requiring hospitalization. All wounds should be properly cleaned and debrided. Tetanus immune globulin (TIG) is recommended for treatment and tetanus booster vaccination if needed. Antibiotic treatment as indicated may be provided. Supportive care and pharmacotherapy to control spasms also may be necessary.
Management of Contacts	Not indicated, since not spread person to person.
Public Health Action	Report suspected cases to Department of Health (505-827-0006).
School Action	-Refer suspected cases for medical evaluation and treatment. -Assure appropriate immunization status for all students. -For wounds, make sure appropriate treatment is given.

Tinea Capitis, Corporis, Cruris and Pedis

Condition, Disease, Agent	Ringworm fungal infection of scalp, body, groin and feet Microsporum and Trichophyton
Clinical Description	Tinea lesions are generally circular, reddish, crusty, and scaly, with a vesiculopapular border; they occur on the face, scalp, and body. Lesions are often itchy. Tinea capitis may present with patchy areas of dandruff-like scaling and hair loss; discrete areas of hair loss with stubs of broken hair; numerous scaly pustules; or a kerion (boggy mass).
Transmission, Exposure	Direct or indirect contact with skin or scalp lesions of infected persons or animals; potentially any surface, especially moist surfaces.
Contagious Period	As long as lesions are present; viable fungus may persist on contaminated materials for long periods.
Incubation	Unknown, estimated to be 10-14 days
Diagnosis	Fungal culture and potassium hydroxide wet mount of scrapings from skin lesions.

Management of Case	Refer suspect cases for medical evaluation and treatment. Scalp lesions require oral therapy for at least 4 weeks. Other varieties require topical or oral antifungal therapy. Students should avoid public areas conducive to transmission such as gyms and swimming pools. School exclusion is not necessary especially if skin (not scalp) lesions can be covered by clothing or a loose dressing until treatment has been initiated.
Management examination of Contacts	Examine close contacts including household pets by visual of the skin and scalp. Monitor contacts if potential for exposure continues.
Public Health Action	Not a reportable condition
School Action	<ul style="list-style-type: none"> -Refer suspect cases for medical evaluation and treatment. -School exclusion is not necessary. -Observe contacts for development of lesions. -Decontaminate sports equipment or wading pools where the fungus may grow. -Encourage covering of lesions. -Discourage sharing of personal items with infected case.

Tuberculosis (TB)

Condition, Disease, Agent *Mycobacterium tuberculosis*

Clinical Description	Primary infection in children may produce non-specific symptoms of fever, weight loss and cough. Reactivation of infection in adolescents or adults produces an enlarging cavity in the lung containing large numbers of bacteria. Active pulmonary tuberculosis causes chronic cough with purulent, often blood-tinged sputum. Chest pain may be present especially if the pleura is involved. Systemic symptoms are common including fatigue, weight loss, night sweats and fever which is usually maximal in the late afternoon and evening.
Transmission, Exposure	Respiratory route by dissemination of either airborne droplet nuclei or dust particles, usually over a period of time with close contact with active disease case. Transmission risk dependent on number of bacteria

present in secretions, efficiency of coughing, closeness of contact, airspace size containing infected droplet nuclei.

Contagious Period	Throughout period of active infection until 1-3 weeks after initiation of effective treatment.
Incubation	Two to twelve weeks from exposure to development of positive tuberculin test; clinical disease most likely within first 2-3 years after infection but may occur decades later.
Diagnosis	Clinical diagnosis on basis of physical examination may be suggestive of tuberculosis, especially if individual is known to have been exposed. A positive tuberculin skin test means that the person has been infected with <i>M. tuberculosis</i> or has received BCG vaccine; it does not necessarily indicate that the infection is active. Interferon-Gamma Release Assays (IGRAs) may also be used to diagnose exposure/infection. Laboratory diagnosis made by microscopic examination and culture of sputum or other specimens confirms the diagnosis and identifies appropriate antimicrobial treatment.
Management of Case	Students and staff with persistent cough (longer than three weeks) should be referred for medical evaluation. For active disease, completion of treatment is critical to prevent relapse and development of secondary drug resistance. Active disease cases should be excluded from school until released by the state Tuberculosis (TB) Control Program, usually after 2 weeks of completed therapy and coughing has subsided.
Management of Contacts	The TB Control Program will coordinate tuberculin testing, and determine the need for chest x-ray, physician evaluation, and preventive treatment of contacts.
Immunization	BCG vaccine is administered in parts of the world where there is a high risk of childhood tuberculosis, but it is not utilized in the United States.
Public Health Action	All active cases of tuberculosis should be reported to the Department of Health. Children who are positive tuberculin reactors should be referred also since infection in a child indicates recent exposure to an active case. The Tuberculosis Control Program will coordinate contact evaluation.

School Action -Refer students and staff with chronic cough lasting longer than three weeks for medical evaluation.
 -Report suspected or confirmed cases to the Department of Health.
 -Exclude students and staff with active tuberculosis from school until determined by the TB Control Program to be non-contagious.

Tularemia

Condition, Disease, Agent Francisella tularensis

Clinical Description Tularemia is also known as rabbit fever. People usually become infected through tick or deerfly bites or by handling infected animals. The common symptoms of tularemia include sudden onset of high fever, chills, fatigue, general body aches, headache, and nausea and a skin ulcer at the site of entry.

Transmission, Exposure Most humans acquire tularemia through handling infected rabbits or rodents, or from deer fly or tick bites.

Contagious Period Not communicable from person to person.

Incubation Related to size of inoculum, usually 3-5 days; range of 1-21 days

Diagnosis Diagnosis done with a single positive serologic test result; confirmed by a 4-fold rise in total antibody titer in second specimen obtained two or more weeks later. Diagnosis is usually confirmed by culture.

Management of Case Tularemia is treatable with antibiotics. Prompt diagnosis and treatment are critical for preventing tularemia from progressing to more serious clinical forms. When human tularemia is suspected on clinical and epidemiological grounds, appropriate specimens for diagnosis should be obtained immediately, and the patient should be started on specific antimicrobial therapy pending laboratory confirmation.

Management of Contacts Not indicated, since not spread person to person.

Public Health Action Report suspected cases to Department of Health (505-827-0006).

School Action -Preventive measures include: avoidance of tick and deer fly bites.
 -Avoid contact with dead and sick animals.

Upper Respiratory Tract Infection, Acute Viral

Condition, Disease,	Numerous viruses, including adenoviruses, coronaviruses, enteroviruses
Agent	and rhinoviruses
Clinical Description	Rhinoviruses are the most frequent cause of the common cold. Signs and symptoms of upper respiratory tract infections include nasal discharge, nasal congestion, sneezing, cough, and low grade fever. Otitis media and pharyngitis can also occur, depending on the causative agent.
Transmission, Exposure	Occurs primarily through person-to-person contact, with self-inoculation by contaminated secretions on hands and/or aerosol spread. Some viruses can be spread via aerosol and indirect contact also.
Contagious Period	Most communicable during the first few days of acute illness.
Incubation	Depends on the causative virus, varies from 2-14 days.
Diagnosis	Usually clinical diagnosis is sufficient. Testing, depending on the type of virus, is available for some viruses although it is not widely used for typical URIs.
Management of Case	Children and adults with clinical illness should be sent home until fever (greater than 100° F) subsides. Fluids are important to maintain hydration. Bed rest, analgesics/antipyretics (other than aspirin) may help symptomatically.
Management of Contacts	No specific recommendations other than using techniques like good hand washing to avoid spreading illness. All individuals at risk for complications from respiratory illness or in contact with persons at increased risk should receive influenza vaccine annually as soon as it is available each year. Encourage good hand hygiene and appropriate disposal of contaminated articles.
Public Health Action	Notify the Department of Health (505-827-0006) when outbreaks of respiratory disease appear in a school.
School Action	-Exclude students and staff with respiratory illness until afebrile (less than 100° F) and symptoms do not affect participation in routine school activities.

- Report suspected outbreaks of respiratory disease to the Department of Health.
- Emphasize hand washing and respiratory droplet precautions as preventive measures.

Vaginitis

Condition, Disease, Agent *Trichomonas vaginalis, Candida*

Clinical Description Thick white (Candida) or malodorous gray (Trichomonas) vaginal discharge, often with external irritation that usually includes itching or dysuria.

Transmission, Exposure Person-to-person genital contact or genital contact with contaminated articles.

Contagious Period Indefinite or several years in untreated persons

Incubation Indeterminate

Diagnosis Usually made by microscopic examination of the infecting agent from vaginal discharge.

Management of Case Specific treatment depends on the causative agent. Sexual contact should be avoided during period of infection and during treatment of patient and partner(s).

Management of Contacts Sexual partners are usually asymptomatic, but they should be evaluated and (depending on cause) may be treated in the case treatment is to be effective long term.

Public Health Action Not a reportable condition.

Prevention Education Promotion of “safer sex” behavior, including condom use, for all sexual contact.

School Action

- Provide preventive education with sex education curriculum.
- Refer suspect cases for evaluation and appropriate treatment.
- School exclusion not appropriate.
- Provide preventive education to include safer sex education.

Varicella-Zoster Infections (Chicken Pox and Shingles)

Condition, Disease, Agent *Varicella zoster virus (human Herpesvirus 3)*

Clinical Description	<p><u>Chickenpox</u> is primarily a disease of childhood. Immunization is essential in preventing this very contagious disease. With increased coverage of varicella vaccine, atypical chickenpox has become increasingly common.</p> <p>Some infections are subclinical or missed because of few lesions. Children typically have low-grade fever and mild upper respiratory tract symptoms before onset of rash. Rash appears in successive crops, with several stages of maturity at the same time. If severe, lesions may occur on the conjunctiva, mucous membranes, palms and soles. Initial lesions are maculopapular on an erythematous base, and then evolve from papule to vesicle to pustule to crust over 2-5 days. Lesions usually do not scar unless unusually deep or secondarily infected. The disease can be more severe in adolescents, adults, and immunocompromised persons. In vaccinated persons who develop varicella more than 42 days after vaccination (breakthrough disease), the disease is almost always mild with fewer than 50 skin lesions and shorter duration of illness. The rash may also be atypical in appearance (maculopapular with few or no vesicles).</p> <p><u>Herpes zoster</u> (“shingles”) is a re-activation of varicella-zoster virus along a dermatome (area of skin supplied by nerve fibers from one spinal nerve) that has remained latent in the dorsal root ganglia. Grouped vesicular lesions appear in the distribution of 1-3 dermatomes. Zoster can become disseminated in immunocompromised persons.</p>
Transmission, Exposure	Person to person by direct contact with respiratory secretions and skin lesions; highly contagious.
Contagious Period	Most contagious 1-2 days before onset of rash and continuing until all lesions have crusted (usually five days). Contagiousness may be prolonged in patients with altered immunity. Susceptible exposed persons should be considered infectious from 8-21 days following exposure.
Incubation	Usually 14- 16 days (up to 21 days). May be prolonged up to 28 days after administration of passive immune globulin (Vari-ZIG).
Diagnosis	Clinical diagnosis can be more challenging than in the past because of atypical disease presenting due to increased vaccine coverage. As a result, laboratory testing to confirm diagnosis is <u>required</u> . In vaccinated persons who develop varicella more than 42 days after vaccination, the disease is almost always mild with fewer than 50 lesions and short duration of illness.

Management of Case	Children with varicella should not be treated with aspirin since it may increase the risk of Reye syndrome. Initial or sporadic cases of chicken pox should be confirmed by a physician. Any child with apparent chicken pox should be excluded from school until all lesions have crusted or until six days after onset of rash. Symptomatic treatment used.
Management of Contacts	Refer immune-impaired susceptible contacts (leukemia, cancer, organ transplantation, immunosuppression) to their physician immediately for passive immunization with varicella-zoster immune globulin (VZIG) after exposure. Nonimmune contacts should be quarantined and excluded from school 8-21 days after exposure. If post exposure varicella-zoster immune globulin is administered, quarantine through 28 days.
Immunization	Varicella vaccine is highly effective in prevention of chicken pox even in immune impaired individuals. All children who without laboratory confirmed chicken pox should receive vaccine. Immunization of susceptible exposed persons more than 5 days after exposure is not effective in preventing disease but will produce immunity in persons who are not infected.
Public Health Action	Report cases to the Department of Health.
School Action	<ul style="list-style-type: none"> -Students with apparent chicken pox should be excluded from school until all lesions have crusted or until six days after onset of rash. Students who are immune-impaired may continue to develop new vesicles for a longer period and should be excluded until all lesions have become dry and are crusted. It is not necessary for lesions to have healed completely. -Students with shingles outbreaks may return to school if all lesions are covered and can remain covered. -Contagiousness may be prolonged in patients with altered immunity. Contact NMDOH at 505 827-0006 for specific recommendations when dealing with altered immunity. -Identify all pregnant females and immunocompromised individuals (students and staff) who have been exposed to varicella and consult ERD for further recommendations -Exclude from school susceptible (i.e. unvaccinated) persons who are exposed from 8th-21st day after exposure. -Encourage immunization for the unimmunized.

West Nile Disease

Condition, Disease, *Flavivirus*
Agent

Clinical Description	Unapparent disease and mild infection are common; signs and symptoms vary in severity from mild fever, to aseptic meningitis, to encephalitis with coma, paralysis and death. The elderly are at greatest risk of severe illness with West Nile Virus. Disease in humans is most common in summer and early fall. Symptoms are quite variable depending on the virus and the age and general health of the case. Mild cases often occur as a febrile headache or aseptic meningitis.
Transmission, Exposure	Transmission is by the bite of infected mosquitoes that have acquired the virus from feeding on infected birds. Birds have the virus for only a few days, but mosquitoes remain infected for life.
Contagious Period	Not transmitted from human to human.
Incubation	Incubation period is usually 2-14 days, up to 21 days in immunocompromised people.
Diagnosis	Patients with signs and symptoms of encephalitis in which diagnosis of West Nile infection is highly suspect should have blood and cerebrospinal fluid (CSF) collected for testing. Commercial laboratories in New Mexico and other states are able to test serum and/or CSF specimens.
Management of Case	No antiviral medication is available. Supportive therapy is indicated.
Management of Contacts	None indicated.
Public Health Action	Report cases to the Department of Health.
Prevention Education	Control mosquito vectors through elimination of breeding sites (i.e., standing water).
School Action	-Avoid exposure to mosquitoes during school activities. -Ensure there are no areas with standing water on school grounds.

References and Resources

[A Guide for Parents Questions and Answers](#)

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[How to Wash Hands – English](#)

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[Lice Identification Chart](#)

[Lice Management Algorithm For Schools](#)

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