Northeastern District Healthcare Coalition
Infectious Disease Plan

February 2021

Overview

An infectious disease is an illness caused by the presence of disease-causing agents or germs, including viruses, bacteria, fungi parasites and other microbes. These diseases are called communicable diseases or transmissible diseases due to their potential for transmission from one person to another.

Transmission may occur by direct contact with an infected person or animal, by ingesting contaminated food or water, or by contact with infected surroundings or contaminated air. Infectious (communicable) diseases that usually require a more specialized route of infection—for example, by insects such as mosquitoes or ticks (disease vectors) —are usually not regarded as contagious. Contagious diseases acquired by blood or needle transmission or sexual contact require prophylactic strategies but not measures such as social distancing or quarantine.

PURPOSE OF THE PLAN

The purpose of this plan is to provide a guide on how an infectious disease outbreak might affect a community, how to respond, and how local agencies should plan.

During an infectious disease outbreak, the Northeastern District Healthcare Coalition will utilize this Infectious Disease Plan to achieve the following goals:

- Limit the number of illnesses and deaths
- Preserve continuity of essential functions
- Minimize social disruption
- Minimize economic losses

A designated lead agency, generally the Alabama Department of Public Health, will coordinate with other local response and support agencies teams to incorporate all-hazard response activities and plans of our community, state and federal partners.

Response to all emergency events will be **National Incident Management System (NIMS)** compliant.

Working closely with local health and emergency services agencies will maximize the health and safety of the community. Understanding the roles of each agency and their responsibilities will promote coordination and communications.

An infectious disease outbreak may result in the rapid spread of the infection. Communities across the State and the country may be impacted simultaneously.

There will be a need for heightened local surveillance of disease symptoms and infection rates.

Antiviral medications may be in extremely short supply. Local supplies of antiviral medications may be prioritized by the local health agency for hospitalized patients, close contacts of patients, health care workers providing care for patients, or other designated groups.

Social distancing strategies aimed at reducing the spread of infection, such as closing schools, community centers, and other public gather points and canceling public events may be implemented.

It will be especially important to coordinate disease control strategies throughout counties in the Northeastern District area and the State due to the regional mobility of the population.

The general public, health care partners, response agencies, elected officials and schools will need continuous updates on the status of the outbreak, the steps local response agencies and the school district are taking to address the incident and steps the public can take to protect themselves.

MITIGATION AND PREVENTION

Mitigation activities are taken in advance of an infectious disease outbreak to prevent or temper its impact. Mitigation efforts will occur primarily during the early phase of the outbreak.

A. How Illness Spreads

Transmission of an infectious disease may occur through several pathways:

1. **Direct Contact.** Direct contact involves skin-to-skin contact and physical transfer of microorganisms from an infected person to a susceptible host.

a. **Person to person:** The most common way for infectious disease to spread is through the direct physical transfer of bacteria, viruses, or other microorganisms from one person to another. These germs can be spread when an infected individual touch, coughs on, or kisses someone who is infected, through the exchange of body fluids from sexual contact or a blood transfusion.

b. **Animal to person:** A scratch or bite from an infected animal or handling droppings can cause disease.

2. **Indirect Contact**. Many microorganisms can linger on objects such as doorknobs, faucet handles, desktops and computer keypads. Indirect contact involves contact of a susceptible host with a contaminated intermediate object in the environment. Some infections can be spread indirectly by contact with contaminated clothing.

3. **Vector.** Vector-borne diseases rely upon organisms, usually insects, for transmission of the parasitic, viral or bacterial pathogens from one host to another. Bites and stings from mosquitoes, fleas, ticks and lice carry disease-causing microorganisms on their body or in their intestinal tract, which can infect humans.

4. **Droplets.** Disease is easily spread when droplets containing pathogenic microorganisms are generated from an infected person during sneezing, coughing or talking, Large droplets travel less than three feet before falling to the ground and do not remain suspended in the air. Transmission via large-particle droplets requires close contact between the infected host and another person and then touch their eyes, mouth, or nose, they can become infected.

5. **Airborne.** Airborne transmission occurs when an infected person coughs, sneezes or talks and generates very small respiratory droplets containing virus or bacteria. These small particles remain suspended in the air for long periods and can be widely dispersed by air currents. When another person inhales these small particles, they can become ill. Airborne transmission of disease can also occur through inhalation of small-particle aerosols in shared air spaces with poor circulation.

6. **Foodborne.** Consumption of food and liquids contaminated with pathogenic bacteria can result in illness or death. Common symptoms of foodborne illness ("food poisoning") include: nausea, abdominal pain, vomiting, diarrhea, gastroenteritis, fever, headache and/or fatigue.

7. **Fecal.** Intestinal tract infections are often spread through oral ingestion of viruses, bacteria, or parasites found in the stool of an infected person or animal. This type of transmission happens when objects contaminated with microscopic amounts of

human or animal feces are placed in the mouth.

B. Prevention Strategies

CLEANING. A virus generally lives 2 to 8 hours on surfaces, but certain viruses may live up to a week or longer. Friction is a key element in cleaning by using soap (or detergent) and water to physically remove germs, dirt, and impurities from surfaces or objects. Cleaning does not necessarily kill germs, but lowers their numbers and mitigates the necessary host environment for pathogen survival, concurrently reducing the risk of spreading infection.

DISINFECTING. Disinfection is the destruction by use of chemicals of pathogenic or other harmful microorganisms on surfaces or objects. Disinfecting does not necessarily clean dirty surfaces or remove germs. Disinfecting agents specifically target infectious pathogens and can lower the risk of spreading infection by killing germs on a surface after it has been cleaned. Disinfection is generally intended for patient-care items in health care facilities. Disinfection requires contact between the disinfectant and the surface to be disinfected for at least ten minutes under moist conditions.

SANITIZING. Sanitizing reduces the number of microbial contaminants on surfaces or objects to a relatively safe level, as judged by public health standards or requirements. Sanitizing works by either cleaning or disinfecting surfaces or objects to lower the risk of spreading infection.

a. Routine Cleaning and Disinfecting. It is important to match cleaning and disinfecting activities to the types of microorganisms to be removed. Flu viruses are relatively fragile and can live and potentially infect a person for only 2 to 8 hours after being deposited on a surface, so standard cleaning and disinfecting practices are sufficient to remove or kill them.

Special cleaning and disinfecting processes, including wiping down walls and ceilings, frequently using room air deodorizers, and fumigating, are not necessary or recommended. These processes can irritate eyes, noses, throats, and skin; aggravate asthma; and cause other serious side effects.

If surfaces or objects are soiled with body fluids or blood, use gloves and other standard precautions to avoid encountering the fluid.
Remove the spill, and then clean and disinfect the surface.

Extra attention should be paid to cleaning the following areas:

- Common areas.
- High touch areas.

Do not mix cleaners and disinfectants unless the labels indicate it is safe to do so. Combining certain products (such as chlorine bleach and ammonia cleaners) can result in serious injury or death.

b. Handle waste properly. Follow standard procedures for handling waste, which may include wearing gloves. Place no-touch waste baskets where they are easy to use. Throw disposable items used to clean surfaces and items in the trash immediately after use. Avoid touching used tissues and other waste when emptying waste baskets. Wash your hands with soap and water after emptying waste baskets and touching used tissues and similar waste.

2. Universal Precautions

Universal precautions are a set of guidelines that assume that all blood and certain other bodily fluids are potentially infectious. Follow universal precautions when providing care to any individual, whether the person is known to be. The list below describes universal precautions:

a. Handwashing

Handwashing is one of the best tools for controlling the spread of infections. Avoid eating or touching your mouth or eyes while giving any first aid. Wash hands thoroughly with warm running water and a mild liquid soap for at least 15-20 seconds. *If soap is not available, then hand sanitizer is suggested. Scrub between fingers, under fingernails and around the tops and palms of hands:

- Before and after physical contact with any person (even if gloves have been worn)
- Before and after eating or handling food
- After contact with a cleaning agent
- After using the restroom
- After providing first aid

b. Personal Protective Equipment (PPE)

- Wear disposable gloves when in contact with blood and other body fluids.
- Wear protective eyewear when body fluids may encounter the eyes (e.g., squirting blood)

c. Clean-up

- Wipe up any blood or body spills as soon as possible
- Double-bag the trash in plastic bags and dispose of immediately
- Clean the area with an approved disinfectant or bleach solution (bleach**:**water= 1:10)

PREPAREDNESS

Effective preparedness includes establishing policies to maintain sanitation, keep records current, conduct periodic inspections and regular maintenance and training for staff.

A. General Activities

- Plan, exercise, evaluate and revise the Infectious Disease Plan
- Train and equip staff to ensure competencies and capacities needed to respond to an infectious disease outbreak
- Develop strategic partnerships with local community health care institutions and providers, and local, State and federal response agencies and their staff
- Develop and implement surveillance and reporting procedures to monitor illness patterns
- Inform and update the community about the potential impacts of an infectious disease outbreak on essential services
- Stockpile necessary equipment and supplies that will be needed to respond to disease outbreaks
- Establish ventilation (HVAC) standards to be used during response and recovery (such as filter change schedules, etc.).

C. Personal Protective Equipment (PPE)

- Provide PPE to HCC (Healthcare Coalition) members as needed (For example, N-95, which must be fit-tested, or surgical masks and nitrile gloves, an alternative to latex gloves).
- Address PPE issues with HCC (i.e. uncomfortable, frequent changes, difficulties recognizing coworkers, communication issues, one size does not fit all).
- Ensure that you have adequate stock and an array of sizes and types available.
- Provide and use alcohol-based hand sanitizer and non-aerosol spray

disinfectant for commonly touched surfaces.

- Train all the HCC to use PPE
- Encourage the HCC to talk about the PPE issues

C. Training

- Provide refresher awareness training for all HCC members
- Train maintenance staff to use chemicals properly to prevent accidental contamination and human exposure;
- Provide training on identifying symptoms of infectious disease
- Educate the HCC on the process and importance of routine hand hygiene and standard health precautions
- Maintain training and attendance records on HCC members, when training is provided during meetings.

D. Emergency Contacts

- Compile an emergency contact list of authorities. Include the names and phone numbers for specific personnel from each agency or authority.
- Determine which agency or authority would serve as a first responder(s). The first responder represents the most important authority that needs to be involved in response to an infectious disease
- Establish a relationship with local authorities to contact in relation to biosecurity concerns. Include law enforcement officials, hazardous material (HAZMAT) representatives, environmental health specialists/sanitarians, health officials, fire and rescue department representatives, or federal food safety regulatory agency representatives (FDA and FSIS) and U.S. Homeland Security officials.
- Distribute the emergency contact list to HCC members
- Ask HCC members to program the emergency contact numbers into their telephones.
- Verify and update emergency contact information often. Note dates of

revisions to prevent confusion.

- Establish procedures for communicating with the public/community and the media when necessary (for example, notices of incidents or a press release).

RESPONSE

Response is the immediate reaction to a disaster. Certain aspects of the response may take place before the event if it is anticipated. Response yields to recovery.

The physical and behavioral "indicators" listed below are nonspecific and do not in themselves suggest the presence of an infection.

a. **Appetite.** Often, an individual who is ill or becoming ill with an infection will exhibit changes in eating habits. He/she may "pick at" solid foods, eat lightly, want only certain foods, and/or prefer liquids.

b. **Behavior.** Irritability may be associated with illnesses, often because of the accompanying fatigue, fever, and discomfort.

c. **Fever.** Fever is a symptom of illness, but it does not automatically require therapy. Repeated low-grade fever may occur as the result of physiological changes in the body and may not cause any discomfort to the individual. However, individuals with a fever over 101°F and other symptoms should/need to be sent home, especially if other symptoms are apparent.

d. **Appearance.** A pasty, pale appearance may signal an illness, especially if it is a change from an individual's normal skin color. A new yellow tinge to the eyes or skin, or a flushed appearance with rosy cheeks and glassy or red eyes, may also indicate an illness.

e. **Rash.** The diagnosis of rashes can be very difficult and even a licensed health care provider may require lab tests to confirm whether a certain disease is present. Itchiness of the rash is not necessarily a signal of infection. A rash can be a symptom of a serious or unserious condition.

f. **Change in Bowel Habit.** Diarrhea may accompany several infectious diseases. Conversely, sluggishness of the bowels and constipation may occur, sometimes with abdominal cramps. Cramps can be due to the inactivity of the ill individual and the dehydration that often occurs during infections.

g. **Nasal Discharge and Obstruction.** Clear nasal discharge may signal a cold or it may indicate an allergic reaction, especially if accompanied by watery eyes. Yellow or green discharge

indicates an infection (usually viral or possibly bacterial) or obstruction by a foreign body. Breathing may be noisy. If breathing is labored, an immediate medical referral is indicated.

h. **Sore Throat.** A sore throat can be a minor problem. However, it may also accompany potentially more significant infections such as *streptococcal pharyngitis*, *infectious mononucleosis,* or even serious generalized illnesses. Check for accompanying fever. Recommend medical evaluation if the sore throat is accompanied by fever, difficulty swallowing, and/or swollen lymph nodes (glands).

i. **Cough.** Coughs accompany some chronic conditions, allergic conditions, and many infectious diseases. Persistent coughs (lasting 3 weeks or more), especially with other symptoms such as fever, loss of appetite, and weight loss, need medical evaluation.

j. **Ear Ache and Ear Discharge.** An individual may complain, pull at the ear, or put a hand to the ear discomfort occurs. When there is an earache, particularly when blood or pus is seen running from the ear, the individual may need to be referred for medical care.

k. **Pain (Back, Limbs, Neck, Stomach).** Leg and back pains are not uncommon during infectious diseases. Gastrointestinal disturbances such as vomiting, diarrhea, and constipation may be accompanied by abdominal pain.

Infection Control

The key concepts of infection prevention and control are:

1. **Handwashing/Hand Sanitizer** – the single most effective way to prevent the spread of germs.

2. **Cover your cough** – an effective way to reduce the spread of germs when coughing and sneezing.

3. **Cleaning, sanitizing, and disinfection** – to reduce the presence of germs in the environment.

4. **Food safety** – to reduce the spread of germs from improperly cooked and handled food.

5. **Exclusion guidelines** – to reduce the opportunity for germs to spread from ill people to others.

6. **Avoid sharing personal items** –

7. **Self-care –** encourage individuals to perform their own first aid, when

age appropriate.

8. **Barriers:** Barriers may be used where there is a possibility of exposure to blood and body fluids (e.g., urine, stool, secretions from the nose and mouth, drainage from sores or eyes). One aspect of standard precautions is the use of barriers. The purpose of using barriers is to reduce the spread of germs to individuals from known/unknown sources of infections and prevent a person with open cuts, sores, or cracked skin (non-intact skin) and their eyes, nose, or mouth (mucous membranes) from having contact with another person's blood or body fluids.

Examples of barriers that could be used include:

- Gloves when hands are likely to be soiled with blood or body fluids.
- Note: an incident of an allergic response to latex or powdered gloves may occur, but the risk from not using gloves of any kind is greater.
- CPR (cardiopulmonary resuscitation) barriers – CPR mask or shield.
- Eye protection and face mask when the face is likely to be splattered with another's blood or body fluid.
- Gowns when clothing likely to be splattered with another's blood or body fluid.
- Safety needles that facilitate safe and proper disposal of used needles

Exposure Response Strategies

- Direct any individuals with health issues to the appropriate medical personnel.
- Send sick individuals home.
- Identify number and scope of potential and probable exposures.
- Isolate the infected individuals
- Notify the local health department. Follow reporting protocols.
- Identify spokesperson for the incident.
- Identify key messages.
- Collect health-related information needed for public communications to the community.

- Communicate information about the infectious disease to the community and any other stakeholders:
    - Possibly physical symptoms;
    - At risk groups
    - Medical response – only health professionals should provide medical advice;
    - Actions being taken.

- Clean and sanitize rooms and facilities

- Document actions

D. High Risk Populations

These individuals have a high risk for harm from an emergency or disaster due to significant limitations in their personal care or self-protection abilities, mobility, vision, hearing, communication or health status. Such limitations result from of physical, mental or sensory impairments or medical conditions.

Some of these individuals may be reliant on specialized supports such as mobility aides (wheelchairs, walkers, canes, crutches, etc.), communication systems (hearing aids, TTY's, etc.), medical devices (ventilators, dialysis, pumps, monitors, etc.), prescription medication, or personal attendants. For some individuals, loss of these supports due to emergency-related power and communication outages, or transportation and supply disruptions may be the primary or only risk factor.

- Identify populations at high risk for the outbreak and exclude them from school/workplace, as appropriate.

- Note special considerations for children and give information to parents, pediatricians, and daycare providers. Include ages affected, signs and symptoms, medical treatment, and risk reduction.

- Provide information to caregivers for limiting the individual's exposure to others and to the news, reminding them to only give age appropriate information to children, and encouraging hand washing.

- Inform the community of risk factors with medically compromised individuals.

- Provide families and friends of health care workers information about the illness to address the stigma of being a caretaker of infected individuals.

1. Social Distancing

Social distancing strategies are non-medical measures intended to reduce the spread of disease from person-to-person by discouraging or preventing people from coming in close contact with each other. These strategies include closing schools and public assemblies, canceling athletic activities and social events, closing non-essential agency functions, implementing emergency staffing plans, increasing telecommuting and flexible scheduling and other options.

2. Quarantine

Quarantine is the physical separation and restriction of movement of individuals, family groups and communities who, though not ill, have been exposed to a contagious disease. Quarantine may be required to prevent the spread of infectious diseases that may be transmitted to other individuals before illness develops or is recognized. Quarantines may be done at home or in a restricted area, depending on the specific nature of the infectious agent.

3. Isolation

Isolation applies to persons who are ill with a contagious disease. Isolation is the physical separation and restriction of movement of an individual who is ill or is suspected of having an infectious illness from those who are not ill and have not been exposed to the contagion. Isolation may be required if medically necessary and reasonable to treat, prevent, or reduce the spread of the disease. Individuals may be isolated in a health care facility, the individual's home or a non-health facility.

Communications

Communications with the public and health care providers will be one of the most critical strategies for containing the spread of the infectious disease and for managing the utilization of health care services. This plan's communications goals are to:

1. Provide accurate, consistent, and comprehensive information about the infectious disease, including case definitions, symptom management, treatment options, infection control measures, and reporting requirements.

2. Instill and maintain public confidence in the state's public health care systems and their ability to respond to and manage an emerging infectious disease environment.

3. Ensure an efficient mechanism for managing information between the local County Department of Health Services, emergency response agencies, health system partners, and the schools.

4. Contribute to maintaining order, minimizing public panic and fear, and facilitating public compliance by providing accurate, rapid, and complete information.

5. Address rumors, inaccuracies, and misperceptions as quickly as possible, and prevent the stigmatization of affected groups.

6. Ensure that all information release to the public is provided through the District Public Information Officer as identified in the District's Emergency Operations Plan.

Reporting Requirements

Individuals treating or having knowledge of a reportable disease, whether the disease is suspected or confirmed, should report the case to the State or local public health agency. In most cases, health care providers or laboratories report diseases. In certain circumstances, school nurses and personnel should report diseases, such as when a student is suspected of having measles, chickenpox, a serious infectious disease, or when an outbreak occurs. It is important to remember that only qualified health care providers can diagnose an illness.

Regarding confidentiality, the Family Rights and Privacy Act prohibits sharing of health-related information except in certain well-defined circumstances, including, but not limited to: specified officials for audit or evaluation purposes, and appropriate officials in cases of health and safety emergences. Notifying the State or local public health agency of a reportable disease does not breach confidentiality laws.

When a case is reported, public health agencies may investigate to confirm the diagnosis, treatment, and cause of the illness, and determine the appropriate methods of disease control. Group outbreaks resulting from any cause, including foodborne outbreaks, must be reported to the State or local public health agency within 24 hours. In an outbreak situation, the goal of the public health agency is to assist in preventing further spread of the illness and to try to determine the cause of the outbreak.

After Action Review

- Implement sanitization and disinfection procedures
- Deploy solid waste disposal plans
- Review processes and incident communication protocols
- Review impact on the community
- Evaluate lessons learned
- Review and revise procedures, as needed

Online Resources

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

U.S. Department of Health and Human Services (HHS)
http://www.hhs.gov

World Health Organization
http://www.who.int

Alabama Public Health
http://www.alabamapublichealth.gov