



New Hampshire Department of Health and Human Services
October 27, 2014

Frequently Asked Questions on Ebola Outbreak

Ebola Background

What is Ebola?

Ebola is a virus that causes a serious and potentially life threatening hemorrhagic fever disease. The symptoms usually begin with fever, headache, joint pain, muscle aches, weakness, diarrhea, vomiting, and stomach pain and can progress to become more severe and include internal and external bleeding in a small percentage of patients.

How is Ebola passed from person to person?

Ebola is transmitted through direct contact with the bodily fluids (such as blood, saliva, vomit, diarrhea, or sweat) of a person who is infected with Ebola virus disease (EVD).

Can Ebola be transmitted through the air?

No. Ebola is not a disease like the flu that can be transmitted through the air.

How long does it take to become ill once you are infected?

Once exposed to the virus, it can take between 2 and 21 days to become ill, though most people become ill within 8–10 days.

Can I get Ebola from contaminated food or water?

No, Ebola is not transmitted through eating or drinking contaminated food or water.

Where does Ebola come from?

Ebola was first identified in Africa in 1976 and every few years there have been small sporadic outbreaks in African countries since then. Fruit bats are considered the most likely natural source of the virus. The virus probably circulates in bats normally, and occasionally monkeys or other animals get infected. From contact with an infected animal, humans can become infected and then EVD spreads from person to person.

Can someone get Ebola from a person who is not showing any symptoms?

No. Individuals who do not have symptoms of Ebola virus disease are not contagious. For the virus to be transmitted, a person has to have direct contact with the body fluids of a person infected with Ebola who is experiencing symptoms.

Is there a vaccine to prevent EVD?

There are currently no FDA approved vaccines for Ebola. The NIH's National Institute of Allergy and Infectious Diseases is working on developing an Ebola vaccine. NIH recently announced they are expediting their work and are launching phase 1 clinical trials for humans of an Ebola vaccine.

Is there a treatment for EVD?

The treatment for Ebola consists of supportive care, such as managing a patient's electrolytes, maintaining fluid levels and hydration, and treating any secondary infections. There is no known cure, but scientists are working hard to develop a treatment.

Current Ebola Outbreak

What countries are presently experiencing Ebola cases?

The current outbreak of Ebola was identified first in March 2014 in Guinea. It has since spread to Liberia, Sierra Leone, Nigeria, and Senegal, though Nigeria and Senegal seem to have it under control. The outbreak in Liberia and Sierra Leone is severe and not yet under control. There is also a small concurrent outbreak in the Democratic Republic of Congo (DRC) but it is unrelated to the West African outbreak.

Why is this particular Ebola outbreak considered so serious?

This is the largest EVD outbreak ever identified and the first outbreak in West Africa. There is limited medical capacity in the affected countries, customs around the handling of dead bodies that put people at high risk, and there are inadequate infection control practices with under- and misinformation circulating around how to control the disease spread. In addition, the outbreak is in highly populated areas so there is a greater possibility for exposure and spread than was seen in previous outbreaks. The numbers of cases in Liberia and Sierra Leone are also increasing rapidly, which increases the chance of greater spread to more people and more countries.

Is it safe to travel to West Africa?

The CDC has issued a level 3 travel alert for Liberia, Sierra Leone, and Guinea, encouraging U.S. citizens to defer unnecessary travel to these countries. The recommendation to defer travel is to avoid contracting EVD and also because there is inadequate access to healthcare for any injury or illness, and these countries have experienced near-complete disruption of societal function because of this outbreak.

Is everyone traveling from Guinea, Sierra Leone, and Liberia at risk for Ebola?

No. People who have been in these countries in the past 21 days but were not around people who have Ebola are at very low risk of developing Ebola. However, these people should be assessed by the NH DHHS Division of Public Health Services to determine risk of developing Ebola and monitored for symptoms of Ebola—603-271-4496.

How are these healthcare workers we hear about becoming infected if they are supposedly using the correct precautions?

The science tells us that Ebola can only be transmitted through the direct contact with bodily fluids of someone who is infected and ill with Ebola or who has recently died from Ebola. Therefore, the only explanation for healthcare workers and others becoming ill with Ebola is accidental contamination, meaning somehow a bodily fluid (such as saliva, blood, sweat, or vomit) from an ill person came into contact with the mucous membranes (nose or eyes), mouth, bloodstream (such as a through a needle stick), or open wound of the person who gets infected. The Centers for Disease Control and Prevention are investigating some instances, such as the nurses in Dallas, Texas, to see how a breach could have happened and will

continue to make changes in recommendations to help prevent such contamination in the future.

Do employees or students need to be excluded if someone in their household or a close contact recently returned from Guinea, Liberia, or Sierra Leone within the last 21 days?

No. In this situation, the employee or student should continue to work or attend school and go about their daily activities.

What should schools or employers do if an employee or student recently traveled internationally?

Employees or students who have recently returned (in the past 21 days) from the countries of Guinea, Sierra Leone, or Liberia (and two rural districts in the Democratic Republic of Congo) should be assessed by the NH DHHS Division of Public Health Services (603-271-4496) to determine the potential risk of Ebola. Employees who have traveled to other countries in Africa or other continents are not currently at risk of acquiring Ebola.

What is isolation?

Isolation (isolating a person from contact with other people) is done when a person have symptoms of a disease and could potentially spread this disease to others. It is most often done in a health care setting since the person is ill.

What is quarantine?

Quarantine (quarantining a person away from contact with other people) is done when a susceptible person has been exposed to a disease, but is not ill. This is typically done at the person's home, and continues for one incubation period after the last time the person was exposed to the disease (21 days in the case of Ebola).

How do the experts know that Ebola isn't airborne?

Through multiple past outbreaks of Ebola and studies that have been done, scientists know exactly how Ebola spreads, which is through the bodily fluids from a sick person that can contaminate and enter the mucous membranes or bloodstream of someone else. This can sometimes happen through what are called droplets, such as when someone sneezes. For a virus to be airborne, it means it is spread by an infected person breathing. Then someone else becomes ill by breathing the same air. This is how measles is transmitted. There is no evidence in this outbreak that people are becoming infected with Ebola in this way. If Ebola were an airborne virus, such as influenza (flu), it would most likely be everywhere in the world by now.

Could Ebola become an airborne virus?

Ebola is spread by bodily fluids or by droplets, meaning you can only get it directly from bodily fluids from an infected person directly, e.g., touching their sweat and then wiping your eye, or from droplets spread in the air, e.g., a sick person coughs and their saliva lands on a table that then someone else touches and then puts that hand on their mouth. So the virus either has to get into your mouth, mucous membranes, or bloodstream. Viruses mutate, but such a change would require many many changes of just the right type for this to become

possible, and viruses don't generally change their mode of transmission, i.e., the way they infect people. Therefore, it is very unlikely that the Ebola virus would mutate (change) enough to alter how it can infect someone.

How long does Ebola live in the environment?

The Ebola virus is very susceptible to drying and environmental conditions. In situations where there is large contamination of body fluids in the environment, such as blood on a floor, the virus may be able to survive up to several days in favorable conditions. In hospital settings where there is daily cleaning or in more typical environmental settings without large contamination and where bodily fluids are able to dry out, the virus is expected to survive for less than 24 hours.

Can pets get infected or sick with Ebola?

At this time, there have been no reports of pets, such as dogs or cats, becoming sick with Ebola or of being able to spread Ebola to people or other animals. Even in areas in Africa where Ebola is present, there have been no reports of pets becoming sick with Ebola. There is limited evidence that dogs become infected with Ebola virus, but there is no evidence that they develop disease or are able to transmit Ebola.

Here in the United States, are our pets at risk of becoming sick with Ebola?

The risk of an Ebola outbreak affecting many people in the United States is very low. Therefore, the risk to pets is also very low, as they would have to come into contact with blood and body fluids of a person with Ebola. Even in areas in Africa where Ebola is present, there have been no reports of pets, such as dogs and cats, becoming sick with Ebola.

Can I get Ebola from my pet?

At this time, there have been no reports of any pet becoming sick with Ebola or of being able to spread Ebola to people or animals. The chances of a dog, cat or other pet being exposed to Ebola virus in the United States is very low as they would have to come into contact with blood and body fluids of a symptomatic person sick with Ebola.

Can my pet's body, fur, or paws spread Ebola to a person?

We do not yet know whether or not a pet's body, paws, or fur can pick up and spread Ebola to people or other animals. It is important to keep people and animals away from the blood or body fluids of a person with symptoms of Ebola infection.

What if there is a pet in the home of an Ebola patient?

CDC recommends that public health officials in collaboration with a veterinarian evaluate the pet's risk of exposure to the virus (close contact or exposure to blood or body fluids of an Ebola patient). Based on this evaluation as well as the specific situation, local and state human and animal health officials will determine how the pet should be handled.

Can I get my pet tested for Ebola?

There would not be any reason to test a pet, including dogs or cats, for Ebola if there was no exposure to a person infected with Ebola. Currently, routine testing for Ebola is not available for pets.

Ebola in the United States

Are there cases of Ebola in the United States?

There have been three people diagnosed with Ebola in the U.S. One person had flown from Liberia to Texas. The Centers for Disease Control and Prevention (CDC) and the Texas Health Department are working with State health officials and hospital personnel to safely monitor the people who have had close contact with this patient. It is possible that other Ebola cases will be diagnosed related to this case, but the United States has much greater disease control capacity than the affected West African countries and all experts agree that there will not be a widespread outbreak of Ebola in the U.S. Two nurses became infected with Ebola in Texas as well as a result of taking care of this individual from Liberia. Four Americans who were infected while in West Africa have been brought into the U.S. to receive care.

How did this individual manage to get to the United States and are people who traveled with him at risk?

This patient was screened before leaving Liberia but was not exhibiting any symptoms. It was four days after arriving in Texas that the patient became ill. Because a person with Ebola is not contagious until they start having symptoms, no one on the planes with him is at any risk.

Why do experts think the U.S. will not have an Ebola outbreak like West Africa is experiencing?

Patient care in the affected countries is very different than healthcare in the United States. In Liberia, Sierra Leone, and Guinea, many patients are being treated all in one ward with limited medical staff, limited equipment, in extreme heat, with no or limited electricity and running water, and with little or no support from the public health system.

What is being done to prevent ill passengers in West Africa from getting on a plane and spreading Ebola elsewhere?

The U.S. Centers for Disease Control and Prevention (CDC) is assisting with the active screening and education efforts in West Africa to prevent sick travelers from getting on planes. Also, airports in Liberia, Sierra Leone, and Guinea are screening all outbound passengers for symptoms of Ebola, including fever, and passengers are required to respond to healthcare questions.

What is being done to prevent further cases of Ebola from coming to the United States?

The CDC is monitoring people traveling into the United States at its 20 pre-existing sites across the country. Highly skilled CDC staff are on duty to respond to sick travelers who arrive at U.S. major airports, seaports, and land border crossings. If an ill passenger is identified, CDC then takes immediate measures to prevent further spread, such as evaluating and isolating the patient and monitoring those who have had contact with the ill passenger.

If there is no treatment, what did the Americans at Emory University Hospital receive?

The two Americans at Emory University Hospital were treated with a drug called ZMapp. This drug from Mapp Biopharmaceutical Inc. is an experimental treatment that has not yet

been tested in humans for safety or effectiveness. At this time, very few courses of this experimental treatment have been manufactured and it is too early to know whether ZMapp is effective. There is other research ongoing toward EVD treatments but none are presently approved by the U.S. Food and Drug Administration for use.

Are the ill Americans who were brought back to the U.S. for treatment a risk to others?

The CDC has very well established protocols in place to ensure the safe transport and care of patients with infectious diseases back to the United States. For more information, visit www.cdc.gov/vhf/ebola/index.html.

Are hospitals in the U.S. prepared to handle Ebola patients?

Hospitals in New Hampshire are working to ensure the earliest possible and most reliable recognition of a suspect case so that appropriate isolation can be instituted. Best available protocols are in place to safely provide initial care for such patients. The New Hampshire Department of Health and Human Services, Division of Public Health Services has been working closely with the Centers for Disease Control (CDC) to ensure local clinical and technical support and even national referral for the prolonged care that will likely be needed for such a patient.

Why were the three American healthcare workers and the cameraman infected with Ebola in West Africa treated in such specialized isolation units in the United States?

There are currently four highly specialized bioisolation units in the United States that were designed to deal with highly contagious infectious diseases. Although they were used to treat American Ebola patients returning from West Africa they are not necessary. Any of the acute care hospitals in New Hampshire and in the U.S. are capable of isolating and managing patients with suspected or confirmed Ebola using routine strategies available at all hospitals.

Why do we see healthcare workers in West Africa taking care of Ebola patients wearing such elaborate protective gear?

The healthcare systems in the affected countries in West Africa do not have access to the same equipment and standards of care as in the U.S. Therefore, the infection transmission risk and thus the prevention strategies are different.

What labs can perform diagnostic testing for Ebola?

The Centers for Disease Control and Prevention at present is the only lab that can test for the Ebola virus in the United States. Should it become necessary to test anyone in New Hampshire for Ebola, the collection and shipment of samples should be coordinated through the NH DHHS Bureau of Infectious Disease Control by calling 603-271-4496.

Can hospitals in the U.S. safely handle samples from patients for testing?

Yes, hospitals handle samples for diagnostic testing all the time on patients with a wide range of illnesses. Hospitals have protocols in place but CDC has also issued guidance specifically around Ebola. The New Hampshire Department of Health and Human Services, Division of

Public Health Services has also been working with hospital laboratories to help develop protocols around how to handle specimens from patients suspected of having Ebola.

Can authorities in the U.S. safely decontaminate Ebola patients' environments and deal with the waste in both the hospital and community?

Hospitals have procedures in place and contractors who are used to dealing with medical waste. In New Hampshire, hospitals have been asked to immediately review their procedures to ensure all necessary safeguards are in place. Regarding community decontamination, different jurisdictions have different rules and laws governing the handling of medical waste and hazardous materials to ensure that they are safely disposed of.

What should I do if I recently traveled to West Africa?

If you traveled to Liberia, Sierra Leone, or Guinea, but have had NO direct contact with any Ebola patients, during the 21 days after you return, you must monitor yourself for any symptoms of illness and check your temperature daily to evaluate for fever. If you become ill or develop a fever, you should immediately contact your doctor and the DHHS Bureau of Infectious Disease Control (603-271-4496).

If you have traveled to one of these countries and HAD direct contact with an Ebola patient or patients or worked in a healthcare facility, you should contact the DHHS Bureau of Infectious Disease Control (603-271-4496) so we can assist you in monitoring yourself, even if you currently do not have any symptoms.

Ebola and New Hampshire

What is the State of New Hampshire doing to prepare for an outbreak such as Ebola?

We are diligently following the developments of this outbreak around the world and in the U.S. We are in close communication with leading health experts at the CDC who are providing us with the latest information about this outbreak. We are also working with our clinicians and healthcare centers here in New Hampshire to make sure they have the latest information about this outbreak. We have provided training webinars for healthcare providers and hospitals and are assisting them in their preparedness efforts. We are also doing an assessment of resources in the State in the unlikely event that there is a patient with Ebola in New Hampshire.

What are hospitals in New Hampshire doing to prepare for Ebola?

Every hospital is reviewing their epidemic response plans and working through the Centers for Disease Control and Prevention (CDC) hospital checklist. Some hospitals have also run drills to ensure they are ready in case an Ebola patient does arrive in the State.

What are first responders doing to prepare in case there is an Ebola patient in New Hampshire?

The Division of Public Health Services is coordinating with all its partners who could have a role to play in the response to Ebola, including police, fire, and EMS. Some of the steps being taken are inventorying supplies of personal protective equipment, conference calls to share information and answer questions, training on using equipment appropriately, and the creation of guidelines around Ebola safety precautions and patient care.

If there is a case of Ebola identified in New Hampshire, what will be the CDC's role?

The NH Department of Health and Human Services has been working with the Centers for Disease Control and Prevention since the Ebola outbreak was identified in Guinea in March of 2014. The coordination and activities in conjunction with the CDC will be continuing throughout the outbreak. Recently CDC announced that they will deploy a team to any location where a patient is identified with Ebola. This team would include infection control, lab science, epidemiology, and personal protective equipment experts.

Are all hospitals going to be taking Ebola patients or will certain ones be designated for patient care?

There has been discussion around the country because of the events in Dallas, TX, of potentially identifying certain hospitals in some or all states that may be better able to manage an Ebola patient. These discussions are ongoing across the U.S.

For more information about Ebola, visit the New Hampshire Department of Health and Human Service website at www.dhhs.nh.gov, the Centers for Disease Control and Prevention website at www.cdc.gov, or the World Health Organization (WHO) website at www.who.org.