On September 30, the first-ever U.S. case of Ebola was diagnosed in a Dallas, TX, patient, Mr. Thomas Eric Duncan, who had arrived in the U.S. from West Africa. He died eight days later. A native of Liberia, Mr. Duncan is believed to have contracted Ebola while assisting a pregnant neighbor who was ill with the disease. Mr. Duncan’s mother lives near Salisbury, N.C., where she and other members of the family and community recently mourned his passing.

On October 10, a Dallas nurse who cared for Mr. Duncan became the first person to contract the Ebola virus in the U.S., and a second healthcare worker tested positive four days later. Yesterday, we learned that a physician just returned from treating Ebola patients in Guinea has tested positive for Ebola in New York City.

**Ebola: basic facts about the disease**

The Ebola virus, once limited to just a handful of African countries, is a virus that causes small blood clots to form in the bloodstream. The clots block blood vessels and prevent blood from getting to the liver, brain, lungs, intestines, and other organs. This can cause spontaneous bleeding through tears forced in the skin or from eyes, mouth, and other body orifices.
Ebola is spread when the blood or body fluids (e.g., saliva, sweat, vomit) of someone with active Ebola symptoms come in direct contact with the mucous membranes (eyes, nose, mouth, etc.) or broken skin of a second person. Ebola can be transmitted by needles, syringes, and other objects that have been contaminated by the virus. It's also known that Ebola can be contracted from infected animals (e.g., monkeys, apes, bats). Studies suggest that the Ebola virus can live on solid surfaces over several days. It is not spread by water, air, food, or insects.

Symptoms of Ebola include stomach pain, vomiting, diarrhea, and a fever of more than 101.5°F. Symptoms occur on average eight to ten days after exposure to the virus, but can take as long as 21 days to manifest.

In the current outbreak centered in Sierra Leone, Guinea, and Liberia, approximately 50 percent of all diagnosed Ebola cases have ended in death, usually from renal failure, loss of blood, or shock. In the U.S., however, some medical experts predict a mortality rate of 30 percent or less because of better access to high-quality healthcare. In the U.S., medical providers have the resources to provide critical supportive care, such as helping to restore a patient’s blood-clotting capabilities and potassium and sodium levels.

Individuals surviving Ebola develop antibodies that will protect them from recurrence for at least 10 years.

Infographic: Facts about Ebola in the U.S.
A vaccine?

Earlier this month, the Federal Drug Administration (FDA) approved an experimental drug to fight Ebola. Brincidofovir, developed by Durham-based biopharmaceutical company Chimerix, has successfully treated Ebola in lab tests and has been used to treat patients in the U.S. who have been diagnosed with Ebola. A second drug developed by a Canadian company has been “fast tracked” by the FDA and is in clinical trials.

Until recently, large pharmaceutical companies showed relatively little interest in developing an Ebola vaccine, partly because Ebola outbreaks had been sporadic and limited in scope. However, the urgency of the West African Ebola epidemic has moved two experimental vaccines into larger clinical trials. One potential vaccine developed by the Public Health Agency of Canada is now being tested at the Walter Reed Army Institute of Research. A second possible vaccine developed by the National Institute of Allergy and Infectious Disease, the Army Medical Research Institute, and a company recently acquired by GlaxoSmithKline is being used in trials launched earlier this month in West Africa and the U.S.
Public Health Preparedness & Coordinated Response

To respond to a serious infectious disease challenge like Ebola, the U.S. public health system relies on concerted, coordinated effort at all levels. The federal government, through the Center for Disease Control and Prevention (CDC), takes the lead, working with state and local officials and with all critical elements - public, private, and nonprofit - of the health system. In this fashion, the U.S. implements a comprehensive, ongoing response plan.

Providing good information to the public is essential to any response plan’s success. In North Carolina, Gov. Pat McCrory and NC Health and Human Services (DHHS) Secretary Aldona Wos have reported that North Carolina has been preparing since July 2014. DHHS is actively monitoring for cases of Ebola, relying on public health epidemiologists in the state’s largest hospital systems and emergency departments. The state has established an Ebola information hotline (1-800-222-1222) for those with questions about the disease.

Health systems and hospitals have also prepared. For example, Novant Health System has designated two of its hospitals, Forsyth Medical Center and Presbyterian Medical Center, as Ebola treatment centers. Both are following the CDC’s infection control recommendations, which include the use of personal protective equipment by healthcare workers, medical waste management, testing, and other important precautions. The CDC has a dedicated response team that will immediately deploy to support any U.S. hospital with a confirmed Ebola patient.
For all of us, a good connection to clear, current information is imperative. When we understand the facts concerning Ebola and the ongoing response, we're empowered, prepared, and freed from unreasonable fears.

Sarah Langer
Health Policy Manager
sarah_langer@ncsu.edu

This email was sent to by Institute for Emerging Issues
Institute for Emerging Issues-NC State University | Campus Box 7406 | Raleigh | NC | 27695-7406
Forward to a friend | Manage Preferences | Unsubscribe