The World Health Organization reports that the current outbreak of the Ebola virus disease (EVD), which is believed to have begun in March 2014 in West Africa, is the largest and most complex outbreak of the virus since its discovery in 1976.\(^1\) It was not until August 2014, when two American missionaries were flown to Emory University Hospital in Atlanta after contracting the disease in Africa, that most Americans became aware of the outbreak. Nearly two months later, the first diagnosis of Ebola was reported in the United States.

The diagnosis and subsequent death of this patient has led many states to reevaluate their emergency preparedness strategies. While the Centers for Disease Control and Prevention (CDC) has issued guidance and recommendations for healthcare providers treating Ebola patients, and standards for public health preparedness in state and local emergencies, it lacks the authority to enforce them.\(^2\)

Incorporating the recommendations from the CDC, many states have taken steps to offer healthcare providers with the information and tools needed to care for suspected Ebola patients, limit exposure to others, and to educate the public on the disease.

The CDC recently announced it would establish a rapid-response team that will be deployed immediately to assist U.S. hospitals with a diagnosed case of Ebola.\(^3\) However, it is important for states to remain proactive in emergency response and vigilant in mitigating the risks posed by infected patients.

The following provides a brief account of some of the efforts SLC states have taken in reaction to the Ebola virus disease, as of October 20, 2014. As governors across the nation continue to meet with health officials in their states, the policies and efforts to combat this disease, for which there is no proven treatment, undoubtedly will continue to evolve.

### Alabama

Governor Robert Bentley held a press conference on October 8, alongside the Alabama Department of Public Health and the Alabama Hospital Association, to announce the measures the state is taking to prepare for possible Ebola cases.\(^4\) In addition to issuing a healthcare provider bulletin, the Department has sent toolkits to every hospital in the state, as well as paramedics and doctors’ offices.\(^5\) The toolkits include a list of questions to ask patients, information on how to protect staff from the disease, and suggestions on the adequate care of patients. Likewise, healthcare workers are being trained on the proper protocol for isolating patients and donning and doffing protective gear.\(^6\) The state also is working to ensure every hospital has the basic gear necessary to stop the spread of Ebola, such as face-shields, and monitoring international students who return from West Africa.
Florida

Governor Rick Scott has maintained communication with Texas Governor Rick Perry as their states learn lessons on proper containment. Governor Scott’s office also is coordinating preparedness efforts with the Department of Transportation, the Agency for Healthcare Administration, and Department of Health. The state’s Department of Health has issued guidelines to businesses, colleges, healthcare facilities, and emergency medical services, while the Agency for Healthcare Administration has identified hospitals with the appropriate treatment kits and isolation facilities and has distributed information and training on containment protocols.

Georgia

On October 20, Governor Nathan Deal signed an executive order to create the Ebola Response Team. The 14-member team, chaired by Public Health Commissioner, Dr. Brenda Fitzgerald, comprising health, education, and public safety representatives from around the state, including Emory University Hospital. The Ebola Response team is tasked with reviewing the state’s protocols, and assessing procedures and best practices in preparation for the potential spread of the Ebola virus disease.

Kentucky

The Department for Public Health has developed a package of materials, called “Out of Africa,” which is intended to help hospitals, public health agencies, and healthcare organizations with Ebola preparedness. The materials include Guidelines for the Initial Management of Patients in Emergency Departments with Suspected Ebola Virus Disease to help healthcare personnel manage suspected cases of Ebola and care for those patients in a manner that will limit further exposure to the virus by other patients and personnel.

Louisiana

Governor Bobby Jindal met with the Unified Command Group* and the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) on October 1 to discuss the state’s readiness to deal with a possible Ebola outbreak. GOHSEP is coordinating efforts with the Coast Guard and Department of Transportation. Meanwhile, the state’s Department of Health and Hospitals has distributed information on identifying symptoms of Ebola, the Department of Education is circulating guides for schools, and the Department of Corrections is briefing wardens on identification, transportation, and containment.

On October 15, the Board of Secondary and Elementary Education approved emergency rules granting local superintendents the authority to close schools in the event of any actual or imminent threat to public health or safety that may result in loss of life, disease, or injury. A student or staff member also may be removed from a school if reliable evidence or information suggests he or she has a communicable disease, which may be considered a threat to others in the school.

Mississippi

The Department of Health issued an Ebola virus hospital preparedness guide and the head of the State Emergency Operations Center and state health officer, Dr. Mary Currier, briefed the governor on the steps the Department has taken to prepare.

North Carolina

Joined by Health and Human Services Secretary Aldona Wos, Governor Pat McCroy held a news conference October 13, to discuss the steps the state has taken to prepare for a possible Ebola diagnosis. The Department of Health and Human Services’ Division of Public Health has been working with public health partners and healthcare providers since July to prepare for the possibility of Ebola in their state. The Department is actively monitoring the state’s largest hospitals for cases of Ebola using a network of hospital-based public health epidemiologists. The Carolinas Poison Center has established an Ebola hotline where concerned residents can receive information and ask questions about the disease.

On October 11, Durham County Department of Public Health, in conjunction with Diaspora Alliance NC, held an Ebola education event for the West African community in Durham. The event was designed to increase awareness and encourage communication and trust with public health workers. The community was updated on the current situation in West Africa and information was shared about what is known about the disease, its transmission, and management. Discussions also included the prepared-

*The state Unified Command Group (UCG) is a strategic decision-making body, established by executive order of Governor Bobby Jindal, to establish a unified and coordinated approach to emergency management in the state for emergencies and in day-to-day operations. The role and duties of the UCG are codified in La. Rev. Stat. §29:725.6.
**TIMELINE OF SELECTED EVENTS**

**1976**
Ebola first discovered in present-day Democratic Republic of Congo

**March 19, 2014**
Ebola outbreak begins in West Africa

**July 27, 2014**
American missionaries Dr. Kent Brantly and Nancy Writebol are reported to have contracted the virus while helping Ebola patients in Monrovia, Liberia

**July 31, 2014**
Brantly and Writebol receive a dose of an experimental drug, which would later be named ZMapp

**August 2, 2014**
Brantly is flown from Liberia to Atlanta, Georgia, for treatment at Emory University Hospital

**August 5, 2014**
Writebol is flown from Liberia to Atlanta, Georgia, for treatment at Emory University Hospital

**August 19, 2014**
Writebol is discharged from Emory University Hospital

**August 21, 2014**
Brantly is discharged from Emory University Hospital

**September 3, 2014**
American missionary Dr. Richard Sacra is diagnosed with Ebola, despite only treating patients in a maternity ward in Monrovia, Liberia

**September 5, 2014**
Sacra is flown from Liberia to Omaha, Nebraska, for treatment at Nebraska Medical Center, where he will receive a blood transfusion from Dr. Brantly

**September 9, 2014**
An unnamed patient arrives at Emory University Hospital in Atlanta after contracting Ebola while working for the World Health Organization in Sierra Leone

**September 20, 2014**
Thomas Eric Duncan arrives in Dallas, Texas, from Liberia

**September 25, 2014**
Dr. Sacra is released from Nebraska Medical Center after being deemed virus-free

**September 26, 2014**
Thomas Eric Duncan goes to Texas Presbyterian Health Hospital in Dallas with a reported fever. He is later sent home with antibiotics and Tylenol

**September 28, 2014**
Duncan returns to Texas Presbyterian Health Hospital by ambulance

**September 30, 2014**
The CDC confirms that Duncan has been diagnosed with Ebola

**October 2, 2014**
American cameraman Ashoka Mukpo contracts Ebola while providing freelance work in Liberia for several American news outlets

**October 6, 2014**
Mukpo arrives at Nebraska Medical Center in Omaha for Ebola Treatment, for a blood transfusion from Dr. Brantly

**October 8, 2014**
Thomas Eric Duncan dies from the Ebola virus at Texas Health Presbyterian Hospital in Dallas

**October 12, 2014**
Nurse Nina Pham is diagnosed with the Ebola virus after treating Duncan at Texas Health Presbyterian Hospital in Dallas; also for a blood transfusion from Dr. Brantly

**October 15, 2014**
Nurse Amber Vinson is diagnosed with the Ebola virus after treating Duncan at Texas Health Presbyterian Hospital in Dallas and is flown from Dallas to Atlanta for treatment at Emory University Hospital

**October 16, 2014**
Pham is flown from Dallas to Bethesda, Maryland, for treatment at the National Institutes of Health

---

**Facts about Ebola**

Ebola virus is **not** spread through

- Casual contact
- Air
- Water
- Food grown or legally purchased in the U.S.

**How do you get the Ebola virus?**

Direct contact with

1. **Body fluids of a person who is sick with or has died from Ebola.** (blood, vomit, urine, feces, sweat, semen, spit, other fluids)
2. **Objects contaminated with the virus** (needles, medical equipment)
3. **Infected animals** (by contact with blood or fluids of infected meat)

**Early Symptoms**

Ebola can only be spread to others after symptoms begin. Symptoms can appear from 2 to 21 days after exposure.

- Fever
- Stomach pain
- Headache
- Unexplained bleeding or bruising
- Diarrhea
- Vomiting
- Muscle pain

**When is someone able to spread the disease to others?**

Ebola only spreads when people are sick. A patient must have symptoms to spread the disease to others.

After 21 days, if an exposed person does not develop symptoms, they will not become sick with Ebola.
ness measures in place in North Carolina, the CDC, and Durham County, and what to do if a family member is visiting the United States from one of the affected areas.

**Oklahoma**

Governor Mary Fallin held a meeting with cabinet members, mayors, and public health, safety, and transportation officials at the state capitol to address the state’s ongoing preparations for a potential Ebola case. The state’s Department of Health has issued alerts and guidelines to hospitals in the state.

**South Carolina**

The Senate Medical Affairs Committee held a special meeting October 9, to discuss the state’s level of preparedness to handle the arrival of a patient suffering from Ebola, should that occur. Legislators at the hearing heard about the state’s actions and resources from Catherine Templeton, director of the Department of Health and Environmental Control. During the hearing, legislators learned that hospitals in South Carolina have begun conducting drills in all areas of the hospital, with “patients” reporting recent travel to West Africa.

The drills are aimed at ensuring the proper protocol is followed at all entry points into the healthcare system, not just the emergency room. Additionally, local harbor pilots, who guide every ship into the Port of Charleston, have been briefed on the proper procedures to handle ships coming into the Port that have recently visited West African countries.

**Tennessee**

The Department of Health’s Emergency Preparedness Program issued a situation manual with scenarios, checklists, and resource guides, as well as instructions on donning and doffing personal protective equipment, to hospitals in the state. The Department of Health also has published examples of successful public health protocols used to contain Ebola in Nigeria and Senegal.

**Texas**

On October 6, Governor Rick Perry issued an executive order for the creation of the Texas Task Force on Infectious Disease Preparedness and Response to address the state’s readiness to handle contagious diseases, like Ebola. The 17-member Task Force comprises executives...
from the health and human services, environmental quality, housing and community affairs, emergency management, public safety, transportation, and education departments and university faculty in the fields of public health preparedness and response, infectious animal diseases, immunology, epidemiology, virology, and bio-defense. The Task Force initially will focus on hospital preparedness and the potential role of improved rapid diagnostics. The Task Force is set to testify at the state capitol October 23, and will release its first report of recommendations by December 1, with a second report by February 1, 2015.

**West Virginia**

The Kanawha-Charleston and Putnam County departments of health formed an Ebola preparedness task force to coordinate efforts among the counties and service providers to handle the potential of an Ebola diagnosis. The task force, with representatives from local hospitals, emergency medical services, and health and fire departments around the area, has worked to develop a systems approach to Ebola containment, identifying current practices and needs in the event of an Ebola case in the state.

**Research & Development: Current Progress in Ebola Detection and Treatment**

Because there currently is no proven treatment for the Ebola virus disease, the best weapon to curtail the outbreak remains early detection and diagnosis. Tulane professor of microbiology and immunology, Dr. Robert Garry, has been awarded $2.9 million by the National Institutes of Health to develop a rapid diagnostic finger-prick test for the Ebola virus. Currently, it can take hours or days before being detected in humans. The finger-prick test will allow healthcare workers to quickly test patients for Ebola proteins and respond more quickly if isolation is needed. It also will reduce the risk healthcare workers face by eliminating the need to use long-needed syringes when drawing blood from Ebola-infected patients. In September 2014, the FDA granted emergency authorization to the Department of Defense to use a similar finger-prick test, which examines viral genomes, in U.S. military labs. Dr. Garry expects that his device, which is still in testing, also will be granted emergency authorization.

The National Institutes of Health and the National Institute of Allergy and Infectious Diseases (NIAID) are leading efforts to develop and expedite the testing and production of Ebola treatments and vaccines.

Kentucky BioProcessing in Owensboro, Kentucky, has been contracted by the San Diego-based company Mapp Biopharmaceutical to produce the experimental medicine ZMapp. ZMapp, which is made using a tobacco plant compound, has seen promising results in Canadian laboratory testing, but was untested on humans prior to being administered to the two American missionaries at Emory University Hospital. Kentucky BioProcessing has temporarily halted all other work to focus entirely on the
production of ZMapp and will hire more staff in an effort to expedite federal approval from the U.S. Food and Drug Administration. In addition to announcing an 18-month, $24.9 million contract with Mapp to accelerate development of the drug, the U.S. Department of Health and Human Services also is in talks with Caliber Biotherapeutics in Texas about producing ZMapp.

Two additional drugs being considered by NIAID were developed in North Carolina. BioCryst Pharmaceuticals in Research Triangle Park plans to begin testing its drug, BCX4430, on humans early next year. Chimerix of Durham has developed a second potential drug, brincidofovir, which has shown promising results with its ability to suppress Ebola virus cells in cultures. Limited testing has indicated the drug is safe for humans; although a broader evaluation of the drug is expected in the coming months.

**Conclusion**

While the actions taken by these 12 SLC states are not exhaustive of Ebola preparations in our region, they provide a snapshot of the first steps for prevention of a national Ebola outbreak. With recent reports from Texas that two nurses have tested positive for Ebola, presumably after providing medical care to the patient who became our nation’s first Ebola casualty, it is likely safe to assume that these will not be the last actions taken by SLC states to combat this deadly virus. As we continue to learn more about the disease and its treatment, SLC states will play a vital role in preventing the spread of infection and the ultimate prospect of global eradication.

The Economic Costs of the Ebola Outbreak

Collectively, state actions and research developments also will help alleviate a secondary impact of the Ebola outbreak, which extends beyond the borders of West Africa. Beyond the doleful consequences of the Ebola outbreak in terms of the loss of life and those stricken by the disease, financial analysts and other experts have attempted to stitch together an estimate of the potential impact on the global economy. A report recently released by the World Bank estimated a potential worst-case scenario economic cost of $32.6 billion to the global economy by the end of 2015, a staggering figure by any standard. Experts also have honed in on the economic cost of fear as being particularly pernicious, a development that might exceed actual medical costs. For instance, these experts indicate that serious economic consequences result “when consumers and businesses react by reducing flights on airplanes, changing vacation plans or altering business connections in a globally interdependent world.” Notably, the stock prices of airlines, including United and American, dropped as investors became anxious about reduced air traffic.

Hartsfield-Jackson Atlanta International Airport. Photo courtesy of Dan Betts via flickr Creative Commons License.
Endnotes


This report was prepared by Policy Analyst Lauren Greer with research assistance from Research and Publications Associate Stephanie Noble for the Human Services & Public Safety Committee of the Southern Legislative Conference (SLC) of The Council of State Governments (CSG), under the chairmanship of state Representative Joni L. Jenkins of Kentucky.

The mission of The Council of State Governments’ Southern Legislative Conference is to foster and encourage intergovernmental cooperation among its 15-member states. In large measure, this is achieved through the ongoing work of the Conference’s six standing committees and supporting groups. Through member outreach in state capitols, policy research, member delegations to points of interest, meetings and fly-ins, staff support state policymakers in their work to build a stronger region.

Founded in 1947, the Southern Legislative Conference is a member-driven organization and the largest of four regional legislative groups operating under The Council of State Governments and comprises the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

The SLC’s six standing committees provide a forum which allows policymakers to share knowledge in their area of expertise with colleagues from across the South. By working together within the SLC and participating on its committees, Southern state legislative leaders are able to speak in a distinctive, unified voice while addressing issues that affect their states and the entire region.

The Southern Office was opened in Atlanta in 1959. Initially charged with serving all three branches of state government, the duties of the Office have evolved to providing services primarily to the more than 2,400 legislative members and staff of its 15-state region. SLC members are appointed by the leadership of the 30 legislative chambers in the South. The SLC Annual Meeting has grown to become the largest regional gathering of state legislators in the country and attracts the largest audience of any of the CSG regional conferences.