Background

Informational Hearing:
Examining California's Public Health Preparedness
For a Potential Ebola Virus Outbreak
Tuesday, November 18, 2014
1:30 p.m. to 4:00 p.m.
State Capitol, Room 437

About Ebola Virus Disease

Ebola is a deadly disease caused by infection with an Ebola virus strain. According to the Centers for Disease Control and Prevention (CDC), Ebola was first discovered in 1976, and there have been sporadic Ebola outbreaks in several African countries. The average incubation period for Ebola is eight to 10 days, but symptoms may appear anywhere from two to 21 days post-exposure. Ebola symptoms include fever, headache, muscle pain, weakness, diarrhea, vomiting, abdominal pain, and unexplained hemorrhaging. The nonspecific nature of Ebola symptoms makes diagnosis difficult, particularly when a person has been infected for just a few days. Ebola is spread through direct contact with blood or bodily fluids of an infected person, infected animals, and objects contaminated with the virus. Healthcare providers, family, and friends in close contact with Ebola patients are at the highest risk for infection, as they are most likely to come in contact with a patient’s infected blood or bodily fluids. Ebola is not airborne and individuals without symptoms are not contagious.

The 2014 Ebola Epidemic

The World Health Organization (WHO) announced on March 23, 2014, that 41 people had contracted Ebola Virus Disease (EVD) in Guinea — the apparent starting point of West Africa’s first Ebola outbreak — and 29 of those infected died from the virus. WHO estimated that the outbreak likely began in December 2013; but believes detection was delayed due to poor disease surveillance and detection capacity.
The 2014 Ebola epidemic in West Africa is now the largest in recorded history. According to CDC, three countries in West Africa — Guinea, Liberia, and Sierra Leone — are experiencing widespread transmission. As of November 9, 2014, WHO reports a total of 14,098 confirmed, probable, and suspected cases of EVD have now been reported in six affected countries (Guinea, Liberia, Mali, Sierra Leone, Spain, and the U.S.) and two previously affected countries (Nigeria and Senegal)\(^1\). From this outbreak, there have been 5,160 reported deaths. Currently, there is evidence that case incidence is no longer increasing in Guinea and Liberia, but steep increases persist in Sierra Leone.

**Prevention, Diagnosis, and Treatment of Ebola**

Diagnosing Ebola in a person who has been infected for only a few days is difficult because the early symptoms, such as fever, are also often seen in patients with more common diseases, such as malaria and typhoid fever. However, if a person has the early symptoms of Ebola and has been in situations where they could become infected, they should be isolated and public health professionals notified. Samples from the patient can then be collected and laboratory testing done to confirm infection. Common situations where a person can be exposed include:

- Contact with the blood or body fluids of a person sick with Ebola;
- Contact with objects that have been contaminated with the blood or body fluids of a person sick with Ebola; and,
- Contact with infected animals.

There is currently no Food and Drug Administration (FDA)-approved vaccine or medicine available for Ebola. Symptoms of Ebola and complications are treated as they appear. Symptomatic interventions, when used early, can significantly improve the chances of survival and include providing intravenous fluids (IV) and balancing electrolytes, maintaining oxygen status and blood pressure, and treating other infections as they occur. Experimental vaccines and treatments for Ebola are under development, but they have not yet been fully tested for safety or effectiveness.

Recovery from Ebola depends on good supportive care and the patient’s immune response. People who recover from Ebola infection develop antibodies that last for at least 10 years, possibly longer. It is not known if people who recover are immune for life or if they can become infected with a different species of Ebola virus. Some people who have recovered from Ebola have developed long-term complications, such as joint and vision problems.

---

\(^1\) WHO weekly situation report, Nov 12, 2014.
United States Response to Ebola Epidemic

CDC is the lead federal agency

An agency of the U.S. Department of Health and Human Services, the CDC is the federal front-line public health agency. CDC personnel have been working on the ground in West Africa to try to stop the spread of Ebola since the spring of this year, when cases first began to mount.2

Within the U.S., the CDC is responsible for developing guidelines for hospitals to help them prepare to treat Ebola patients, guidelines for healthcare workers to protect themselves while caring for those infected, as well as, for those handling the bodies of deceased Ebola patients. The CDC is also responsible for the procedures to screen travelers from affected countries. During the current Ebola outbreak, the CDC has continued to update guidelines and protocols for handling suspected Ebola patients by healthcare workers. This includes the issuance of stronger safety standards for healthcare workers who are caring for patients infected with Ebola. The updated protocols include personal protective equipment that covers the entire body and leaves no skin exposed.

The CDC is generally not responsible for implementation or enforcement of protocols but delegates these responsibilities to state and local agencies. The CDC can provide on-the-ground assistance and in some cases, provide funding to state and local public health personnel. CDC has set up a dedicated response team that can be on-the-ground within a few hours at any U.S. hospital that receives a confirmed patient with Ebola. The CDC response team provides in-person, expert support, and training that includes infection control, healthcare safety, medical treatment, contact tracing, waste and decontamination, and public education. The CDC response team would help ensure that clinicians, and state and local public health practitioners, consistently follow strict standards of protocol to ensure the safety of patients and healthcare workers.

Enhanced Airport Screening Order

On October 22, 2014, the Department of Homeland Security announced that all flights originating in Sierra Leone, Guinea, or Liberia must use one of five designated airports (JFK, Newark, Dulles, Hartsfield-Jackson, or O'Hare) as their port of entry because these airports now have enhanced screening procedures. The CDC opposes travel bans and more rigid quarantines and along with the Customs and Border Protection will monitor all travelers from these countries for 21 days, reporting their body temperatures and symptoms daily to their local health departments.

The CDC urges individual states to adopt active monitoring and follow up of individuals whose flights originated in Sierra Leone, Guinea, or Liberia when they arrive at their final U.S. destination. The CDC also suggests that states adopt a tiered approach to risk: a) high risk (e.g., health workers known to have skin exposure or needle stick with EVD); b) moderate risk (e.g., health workers with no known exposure who have treated Ebola patients); c) low risk (e.g., travelers who have been to areas with Ebola epidemic and have had no contact with individuals known to have Ebola).

Recent news: White House Requests More Than $6 Billion to Combat Ebola

On November 5, 2014, the Obama Administration formally requested that Congress approve more than $6 billion in emergency funding to fight the spread of the Ebola virus. This request is in addition to $88 million in funding approved by Congress in September 2014 and $750 million in funds Congress authorized the Department of Defense to shift to help pay for U.S. anti-Ebola response and efforts to stop the virus’ spread in West Africa. In a letter to House Speaker John Boehner (R-OH), President Obama wrote this additional funding would help “to contain and end the outbreak at its source in Africa, enhance domestic preparedness, speed the procurement and testing of vaccines and therapeutics and accelerate global capability to prevent the spread of future infectious diseases.”

The additional $6 billion would be divided between public health agencies including the CDC, National Institutes of Health, and the FDA and also would be used for humanitarian needs overseas. The resources would be used by these agencies for training healthcare workers, acquiring protective equipment, managing Ebola treatment units, tracking the disease, education and outreach, burial teams, and addressing food insecurity. In addition, some of the funds would go toward creating 50 Ebola treatment centers across the U.S., purchasing protective equipment for medical workers and enhancing airport and border screening for Ebola. This funding request is currently before the Senate and House Appropriations committees.

Ebola cases in the United States

In September 2014, the first travel-associated EVD case in the U.S. was diagnosed in Dallas, Texas. The patient initially visited the emergency room of the Presbyterian Hospital of Dallas, where he was diagnosed with a low-grade fever and sent home. He was later isolated and treated at the same hospital, but died from EVD on October 8, 2014. Two nurses caring for this patient while in the hospital acquired Ebola; they were treated and later declared free of EVD.

The Ebola infection of these nurses in Texas has heightened concerns regarding the risk of transmission from infected travelers, particularly regarding the risk healthcare workers face while treating patients with EVD. The CDC has stated the risk of a widespread EVD
outbreak in the U.S. is very low, although it is likely that individual cases may occur, and therefore hospitals and other healthcare providers should be vigilant in preparing for EVD, including establishing effective screening procedures. In addition to the two nurses in Texas who received treatment for Ebola, five aid workers who treated Ebola patients while in West Africa were medically evacuated to the U.S. for treatment.

The California Response to Potential Ebola

California Department of Public Health (CDPH) is the lead agency on Ebola Virus response in California. CDPH works with a team of state departments and agencies including: California Health and Human Services Agency, Governor’s Office of Emergency Services (CalOES), Emergency Medical Services Authority (EMSA), and the Department of Industrial Relations (DIR), to address all aspects of preparedness for a potential Ebola case in California.

CDPH states that since the recent Ebola outbreak began, they have worked with state, federal, and local health officials to prepare for potential cases of Ebola in California. In August 2014, CDPH launched an informational website compiling information about the outbreak and preparing California healthcare providers with guidance and protocols from the CDC. CDPH distributed CDC guidance on specimen collection, transport, testing, and submission for patients suspected of having Ebola. CDPH later posted interim guidelines for Ebola medical waste management and recommended that all healthcare facility environmental services personnel and infection control staff work together to develop facility-specific protocols for safe handling of Ebola related medical waste.

In September, CDPH convened more than 1,100 healthcare and public health workers to urge them to assess their Ebola readiness and conduct drills in their facilities. CDPH and other agency officials have held several teleconferences with healthcare providers to discuss the latest news and guidance about handling suspected Ebola cases. CDPH is providing weekly updates to local health officials, first responders, healthcare providers, and legislative staff.

In October 2014, CDPH launched a telephone hotline call center to respond to public inquiries related to Ebola. CDPH and EMSA activated the Medical and Health Coordination Center (MHCC) at level 1, a low-level activation, in response to Ebola for EVD preparedness in California. The MHCC will support Ebola readiness among the state’s healthcare providers, local health departments and public health laboratories. Also in October 2014, the five University of California Medical Centers were designated as priority hospitals to treat any confirmed cases that may be identified in this state. CDPH also issued a quarantine order and associated guidelines on October 29, 2014 that require counties to

---

3 http://www.cdph.ca.gov/Pages/NR14-087.aspx
4 http://www.cdph.ca.gov/Pages/NR14-088.aspx
individually assess persons at risk for Ebola and tailor an appropriate level of quarantine as needed. This flexible, case-by-case approach is designed so local health officers have uniform guidelines and response to disease prevention, while ensuring that individuals at risk for Ebola are treated fairly and consistently.

What are other states doing?

Since protecting public health is managed at the state level, states are given broad authority to prevent the spread of disease. There has been a wide variation in response preparations throughout the U.S. Several states, and the U.S. Military, have instituted restrictions for individuals returning from the three Ebola-hit West African countries in ways that go beyond the recommendations of the CDC. New York and New Jersey have imposed mandatory, blanket quarantines of 21 days for healthcare workers returning from EVD hotspots and for travelers who have had known contact with Ebola victims\(^5\). Maine officials have called for voluntary quarantines for healthcare workers in contact with Ebola patients. Like California, the states of Connecticut, Florida, Georgia, and Illinois have issued tiered, risk-based guidelines that can include quarantine, on a case-by-case basis.

California's Multisystem Response to Public Health Emergencies

California Department of Public Health

CDPH is the lead state agency for public health surveillance and response to public health incidents or threats. CDPH coordinates the public health response to any potential pandemic illness with local health departments, the healthcare community, the federal government, and other key partners.

Emergency Medical Services Authority

EMSA is the lead agency and centralized resource to oversee emergency and disaster medical services. EMSA is charged with providing leadership in developing and implementing the 33 local EMS systems (LEMSAs) throughout California. LEMSAs are responsible for implementing and managing the actual protocols, such as transportations of suspected Ebola patients or decontamination of ambulances after transport.

Governor's Office of Emergency Services

CalOES coordinates overall state agency response to major disasters in support of local government. CalOES is responsible for assuring the state’s readiness to respond to and recover from all hazards – natural, manmade, war-caused emergencies, and disasters – and for assisting local governments in emergency preparedness, response, recovery, and hazard mitigation efforts.

**Department of Industrial Relations**

DIR and its Division of Occupational Safety and Health (Cal/OSHA) protects workers from health and safety hazards on the job in almost every workplace in California. DIR and Cal/OSHA coordinate with the CDPH to issue guidelines for workers in specific occupations at higher risk of exposure to infectious disease. The Cal/OSHA Bloodborne Pathogens Standard\(^6\) applies to all workers who have occupational exposure to blood or other potentially infectious materials. This includes healthcare workers who care for EVD cases and suspected cases, and workers who are otherwise exposed to potentially infectious bodily fluids. Housekeeping or other personnel responsible for disinfecting areas occupied by EVD patients are also included, as well as laboratory workers.

In 2009, California adopted an occupational health regulation that specifically addresses infectious diseases like Ebola, Cal/OSHA Aerosol Transmissible Diseases (ATD) standard\(^7\) is aimed at preventing worker illness from infectious diseases that can be transmitted by inhaling air that contains viruses (including Ebola), bacteria, or other disease-causing organisms. California passed the first occupational ATD standard in the nation. The ATD standard was designed to make recommended public health practices in infection control legally enforceable. It applies to workplaces at high risk for infectious diseases such as hospitals, clinics, emergency medical services, laboratories, prisons and homeless shelters. On October 17, 2014, Cal/OSHA released interim guidelines\(^8\) specific for workers in professions determined to be at potential risk of exposure, including healthcare workers, emergency responders, laboratory staff, mortuary workers, airline flight crews, airport staff, and quarantine operations staff.

**Issues for the Committee to Consider**

Ebola is a very serious disease with a very high mortality rate. Although for many years, the disease had not traveled to the U.S., during this latest outbreak two cases were contracted here. Our experience with Ebola, raises broader questions about our ability to prepare for and prevent the spread of infectious diseases. The historical pattern has been that when there is an immediate threat of an infectious disease, measures are taken to improve readiness. However, when the threat dissipates, our ability to respond may also diminish. Besides considering our ability to respond to possible outbreaks of Ebola, the Committee may want to consider how to maintain adequate preparedness, when the public health threats are less evident.

---

\(^6\) CCR Title 8, Section 5193
\(^7\) CCR Title 8; Section 5199
\(^8\) http://www.dir.ca.gov/DIRNews/2014/2014-95.pdf