

House Committee on Foreign Affairs, Subcommittee on Africa, Global Health, Global Human
Rights, and International Organizations

Combating the Ebola Threat

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Statement of Tom Frieden, MD, MPH, Director, Centers for Disease Control and Prevention

Good afternoon Chairman Smith, Ranking Member Bass, and members of the Subcommittee. Thank you for the opportunity to testify before you today and for your ongoing support for the Centers for Disease Control and Prevention's (CDC) work in global health. I am Dr. Thomas Frieden, Director of CDC. Just a year ago, I testified before this very Subcommittee about the importance of CDC's work to strengthen global health security by improving detection, response, and prevention. Today, I am here to discuss the current epidemic of Ebola in West Africa, which illustrates in a tragic way the need to strengthen global health security.

We do not view Ebola as a significant danger to the United States because it is not transmitted easily, does not spread from people who are not ill, and because cultural norms that contribute to the spread of the disease in Africa – such as burial customs – are not a factor in the United States. We know how to stop Ebola with strict infection control practices which are already in widespread use in American hospitals, and by stopping it at the source in Africa.

Ebola is a severe, often fatal, viral hemorrhagic fever. The first ebolavirus was detected in 1976 in what is now the Democratic Republic of Congo. Since then, outbreaks have appeared sporadically. The current outbreak in Guinea, Liberia, and Sierra Leone is the first that has been seen in West Africa and the biggest and most complex Ebola outbreak ever documented.

Ebola has an abrupt onset of symptoms similar to many other illnesses, including fever, chills, weakness and body aches. Gastrointestinal symptoms such as vomiting and diarrhea are common, and in approximately 45 percent of cases there is hemorrhaging, or serious internal and external bleeding. There are two things that are very important to understand about how Ebola spreads. First, the evidence suggests that Ebola only spreads through human-to-human transmission from people who are symptomatic— not from people who have been exposed to, but are not ill with the disease. Second, everything we have seen for the past few decades indicates that Ebola is not spread by casual contact; Ebola is spread through direct contact with bodily fluids of a sick person, or exposure to objects such as needles that have been contaminated. While the illness has an average 8-10 day incubation period (though it may be as short as two days and as long as 21 days), we recommend monitoring for signs of symptoms for the full 21 days. Again, people are not contagious during that incubation period. To be clear, evidence does not suggest Ebola outbreaks are spread through the air. Catching Ebola is the result of exposure to bodily fluids, which we are seeing occur in West Africa, for example, in hospitals in weaker health care systems and some African burial ceremonies. Getting Ebola requires exposure to bodily fluids of someone who is ill from – or has died from – Ebola.

The first recorded cases in the current outbreak were reported in March of this year. Following an initial response that seemed to slow the outbreak for a time, new cases flared again due to weak systems of health care and public health and because of challenges health workers faced in dealing with communities where critical disease-control measures were in conflict with cultural norms. As of earlier this week, the outbreak surpassed 1,600 cumulative reported cases, including nearly 900 documented deaths. The effort to control the outbreak in some places is complicated by fear of the disease and distrust of outsiders. Security is tenuous and unstable, especially in remote isolated rural areas. Just recently, health care workers were confronted by an angry mob, leading them to retreat back to safety.

Further, many of the health systems in these countries are weak, and do not reach into rural areas. Health care workers may be limited, or may not reliably be present at facilities, and those facilities may have limited capacity. Local traditions such as public funerals and cultural mourning customs including preparing bodies of the deceased for burial, make efforts to contain the illness more difficult. Furthermore, the porous borders among the three countries and remoteness of many villages have greatly complicated control efforts.

Though the outbreak began in March of this year, there have been several recent developments that have focused world attention on the situation. First, on July 20th, an American man who had previous contact with an Ebola infected patient boarded a plane in Liberia and flew to Nigeria. During that flight, the man exhibited symptoms; he was later diagnosed with Ebola and died five days later. Unfortunately, health care workers did not use infection control measures in caring for him before his Ebola disease was diagnosed. Second, many healthcare workers, including doctors and nurses, have been infected with the Ebola virus, over half of whom have died. Finally, in recent weeks two Americans working in Liberia with a humanitarian aid group have fallen ill with Ebola. Several organizations have scaled back or withdrawn volunteers from the affected areas, due to both health and security risks. These events have focused attention on the ongoing risk of the outbreak spreading to other countries, the need for constant vigilance in infection control procedures when in contact with patients, and the heroism and sacrifice of health care workers, and volunteers from the United States and around the globe, in the face of this dreadful and merciless virus. That is why great care is being taken to help the two American humanitarian workers who came back home for treatment. As we have done with similar cases in the past, we are helping to ensure, both in their transport and in their care at Emory University Hospital, that meticulous infection control procedures are being followed. Bringing humanitarian workers back home to the United States is the right thing to do to help save lives. The role of the public health system is to

make sure that in doing so, we keep the risk of infection to the absolute minimum, both during transport and while they are in care here, and that's exactly what we have done and will continue to do.

CDC and our partners must surge to deliver resources and expertise to help end this outbreak. Far too many lives have been lost already. We have a difficult road ahead which will take many months, but we must redouble our efforts to bring this terrible outbreak under control.

Fortunately, we know what we must do. In order to stop an Ebola outbreak, we must focus on three core activities: find active cases, respond appropriately, and prevent future cases. The use of real-time diagnostics is extremely important to identify new cases. We must support the strengthening of health systems and assist in training healthcare providers. Once active cases have been identified, we must support patient care in treatment centers, prevent further transmission through proper infection control practices, and protect healthcare workers. Epidemiologists must identify contacts of infected patients and follow up with them every day for 21 days, initiating testing and isolation if symptoms emerge. And, we must intensify our use of health communication tools to disseminate messages about effective prevention and risk reduction. These messages include recommendations to report suspected cases and to avoid close contact with sick people or the deceased, and to promote safe burial practices. In Africa, another message is to avoid bush meat and contact with bats, since "spillover events", or transmission from animals to people, in Africa has been documented through these sources.

Many challenges remain. While we do know how to stop Ebola through meticulous case finding, isolation, and contact tracing, there is currently no cure or vaccine for Ebola. We need to strengthen the global response, which requires close collaboration with the World Health Organization (WHO) and additional assistance from our international partners. At CDC, we activated our Emergency Operations Center to respond to this outbreak, and are surging our response. One of the surge objectives is an initial

deployment of fifty disease control experts in thirty days to the region to support partner governments, WHO, and other partners working in the region. Other goals during this thirty-day time period include:

- Improved case finding, contact identification, and follow up in each country, as well as improved database management to support these activities
- Improved health messaging in these areas, particularly targeting uncooperative communities
- Improved coordination with our partners, including WHO, Médecins Sans Frontières (or Doctors Without Borders), and country Ministries of Health.

Last Thursday, CDC issued a warning to avoid nonessential travel to the West African nations of Guinea, Liberia, and Sierra Leone. This Level 3 travel warning is a reflection of the worsening Ebola outbreak in this region. In addition to warning travelers to avoid going to the region, CDC is also assisting with active screening and education efforts on the ground in West Africa to prevent sick travelers from getting on planes. The United States receives 362 million travelers a year from other countries, and these travelers are essential to our economy, our families, and our communities. A very small proportion of world travelers entering the United States are coming from the affected nations. If a person exposed to Ebola becomes sick en route to or within the United States, CDC has protocols in place to protect against further spread of disease. These include notification to CDC of ill passengers on a plane before arrival, investigation of ill travelers, and taking steps to isolate travelers who are ill or believed to have been exposed. It is not impossible that there will be some travelers who become sick in this country, and as we have seen in the past week, hospitals and airports are able to identify and quickly respond to potential cases, even if they prove to be low-risk for Ebola. But we are confident that a large Ebola outbreak in the United States will not occur.

CDC also provides guidance to airlines for managing ill passengers and crew and for disinfecting aircraft. Last week, CDC issued Health Alert Notices reminding United States healthcare workers of the

importance of taking steps to prevent the spread of this virus, how to test and isolate suspected patients and how they can protect themselves from infection.

Working with our partners, we have been able to stop every prior Ebola outbreak, and we will stop this one. It will take meticulous work. It's like fighting a forest fire: leave behind one burning ember, one case undetected, and the epidemic could re-ignite. Ending this outbreak will take time, at least three to six months in a best case scenario, but this is very far from a best case scenario. Once this outbreak is controlled, we will leave behind stronger systems to prevent, detect, and stop Ebola and other outbreaks before they spread. These include lab networks that can rapidly diagnose Ebola and other threats, emergency operations centers that can swing into action at a moment's notice, and trained disease detectives who can find an emerging threat and stop it quickly. If these people, facilities, and labs had been in place in the three countries currently battling Ebola, the outbreaks would already be over. We must do more, and do it quickly, to strengthen global health security around the world, because we are all connected. Diseases can be unpredictable – like H1N1 coming from Mexico, MERS emerging from the Middle East, or Ebola in West Africa, where it had never been recognized before – which is why we have to be prepared globally for anything nature can create that could threaten our global health security.

Global health security is a shared responsibility that cannot be achieved by a single actor or sector of government. In partnership with other nations and international organizations, the United States is committed to accelerate progress toward a world safe and secure from infectious disease threats and to promote global health security as an international priority.

There is worldwide agreement on the importance of global health security, but as the recent Ebola outbreak demonstrates, there is much more to be done. All 194 World Health Organization Member

States have adopted the International Health Regulations (IHR). Progress has occurred over the past years, but 80 percent of countries did not claim to meet the IHR capacity required to prevent, detect, and rapidly respond to infectious disease threats by the June 2012 deadline set by WHO. No globally linked, inter-operable system exists to prevent epidemic threats, detect disease outbreaks in real-time, and respond effectively. Despite improved technologies and knowledge, concerning gaps remain in many countries in the workforce, tools, training, surveillance capabilities, and coordination that are crucial to protect against the spread of infectious disease, whether naturally occurring, deliberate, or accidental. The technology, capacity, and resources exist to make measurable progress across member countries, but focused leadership is required to make it happen.

Earlier this year, the United States Government joined with partner governments, WHO and other multilateral organizations, and non-governmental actors to launch the Global Health Security Agenda. Over the next five years, the United States has committed to working with at least thirty partner countries (with a combined population of at least four billion people) to improve their ability to prevent, detect, and effectively respond to infectious disease threats - whether naturally occurring or caused by accidental or intentional release of pathogens. As part of this Agenda, the President's FY 2015 Budget includes \$45 million for CDC to accelerate progress in detection, prevention, and response. The economic cost of large public health emergencies can be tremendous – the 2003 Severe Acute Respiratory Syndrome epidemic, known as SARS, disrupted travel, trade, and the workplace and cost the Asia-Pacific region alone \$40 billion. The Budget's \$45 million proposal would improve detection, prevention, and response and potentially reduce some of the direct and indirect costs of infectious diseases.

Improving these capabilities for each nation improves health security for all nations. Stopping outbreaks where they occur is the most effective and least expensive way to protect people's health. While this tragic outbreak reminds us that there is still much to be done, we know that sustained commitment and the application of the best evidence and practices will lead us to a safer, healthier world.

Thank you again for the opportunity to appear before you today. I appreciate your attention to this terrible outbreak and I look forward to answering your questions.