

Senate Committee on Homeland Security and Governmental Affairs

Preparedness and Response to Public Health Threats: How Ready Are We?

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

Thank you, Mr. Chairman and Members of the Committee. I am Dr. Tom Frieden, Director of the Centers for Disease Control and Prevention (CDC). I appreciate the opportunity to appear before you to discuss public health preparedness in the United States. I first will discuss CDC's support of public health preparedness and response on the front lines and outline CDC programs and infrastructure critical to public health preparedness. The current Ebola epidemic in West Africa – and the consequences here in the United States – reinforce the importance of a robust preparedness program globally and in the United States. Ebola illustrates how CDC protects the homeland here at home by addressing disease outbreaks at their source, working closely with global, state, and local public health partners to prepare for and respond to health threats.

Public Health Preparedness and Response

CDC advances the health security of the Nation by helping communities prepare for, respond to, and recover from all hazards, including: chemical, biological, radiological, and nuclear threats; natural disasters; outbreaks; and epidemics. Whether the hazard is naturally occurring (Ebola and Middle East Respiratory Syndrome), accidental (the West Virginia chemical spill) or intentional (the Boston Marathon bombings, anthrax attacks), effective public health emergency response depends on building, maintaining and constantly improving on the capability of state and local health departments to prepare for and respond to public health emergencies. The all-hazards approach to public health preparedness and response fosters development of emergency-ready public health departments that are flexible and adaptable to the needs of a particular event.

There is one essential concept that we believe is key to keeping us safe. Emergency systems are most effective when they rely on everyday systems that are robust and can be scaled up in a crisis. Systems that are only intended for use during emergencies are less likely to be protective. For example, during the H1N1 flu epidemic, infrastructure that was available for the Vaccines For Children program was able to provide more than 300,000 vaccine deliveries without a problem because it drew on an existing, robust, and scalable program.

CDC's Public Health Emergency Preparedness (PHEP) cooperative agreement program provides technical assistance and resources that support state, local, and territorial public health departments in demonstrating measurable and sustainable progress toward achieving public health preparedness capabilities. CDC's *Public Health Preparedness Capabilities: National Standards for State and Local Planning* assists state and local planners in identifying gaps in preparedness, determining specific jurisdictional priorities, and developing plans for building and sustaining public health capabilities. PHEP awardees use their cooperative agreement funding to build and sustain these 15 public health preparedness capabilities for all hazards. Awardees conduct jurisdictional threat and risk assessments and direct Federal preparedness funds to priority areas. The capabilities are divided into two tiers, with the first tier consisting of capabilities CDC considers central to building a strong basic foundation for public health preparedness. Tier 1 capabilities include a number that are essential to the domestic Ebola response, such as public health surveillance and epidemiological investigation, information sharing, public health laboratory testing, medical materiel management and distribution, and emergency operations coordination. Awardees are required to conduct annual preparedness exercises and submit after-action reports and improvement plans, and to demonstrate capabilities and identify areas that need to be strengthened.

PHEP funding in FY 2014 totaled more than \$600 million, awarded to 62 awardees – 50 states, four localities, and eight territories – according to a base-plus population formula, which ensures at least a certain minimum amount to each awardee. In addition, CDC personnel help PHEP awardees improve their performance by sharing knowledge, useful practices and lessons learned – along with the tools and resources needed to identify and address preparedness capability gaps. CDC guidance encourages states to allocate a portion of their PHEP awards to their local jurisdictions to assure they have adequate funding to prepare for public health threats.

Preparing for and responding to Ebola falls within the scope of the PHEP award and, when needed during an emergency situation such as the current Ebola response, PHEP funds can be used to enhance surge capacity. Any state needing immediate assistance can redirect a portion of PHEP funds to Ebola preparedness activities without prior approval (up to 30 percent of their award or up to \$1 million, whichever is less). Funds in greater amounts can be redirected with prior approval. The greater the flexibility of emergency funds, the more effectively they can be deployed in the event of an emergency.

The PHEP program has contributed significantly to the development of a state and local all-hazards public health emergency response platform. Before the program was formed in 2002, state and local health departments lacked critical systems needed not only to mount an emergency response, but also to conduct effective, routine public health activities. These systems include laboratory networks, electronic disease surveillance systems, risk communication networks and emergency operation centers. According to states, support from CDC's PHEP program contributed significantly to emergency response staffing in health departments; building complex public health systems; developing all-hazards response plans; and purchasing medical countermeasures, warehouse space to store them, personal

protective equipment for responders, communications equipment, information technology equipment, and maintenance support. Trends in public health preparedness capabilities of PHEP awardees show that CDC investments have made a measurable impact. Over the past three years, PHEP awardees have improved capacity in nearly all of the Tier 1 public health preparedness capabilities.

CDC is working with our colleagues in other components of the Department of Health and Human Services to enhance coordination between the Nation's public health preparedness programs and hospitals. The Hospital Preparedness Program provides funding to prepare health care systems for disasters and improves response and recovery efforts to reduce injury and loss of life during public health emergencies. For the past few years, we have worked to more closely align these two programs to improve efficiency and effectiveness of the Federal Government and of the awardees. Coordination between the Nation's public health and healthcare preparedness systems strengthens preparedness of both systems.

CDC supports states and localities through other direct and indirect methods. CDC provides extensive training and guidance to public health agencies and medical practitioners, and is on constant standby to deploy CDC experts – including “disease detectives” – to provide surge capacity and technical support to state and local officials when needed. The Epidemiology and Laboratory Capacity (ELC) grants provide state, local, and territorial health department grantees with the financial and technical resources to strengthen essential epidemiologic, laboratory, and health information systems to detect, prevent, and control infectious diseases. This enhanced capacity leads to better (e.g., quicker, more targeted) disease outbreak detection and response, and improved development, implementation and evaluation of public health interventions that protect the public health and safety of the American people. Additionally, working closely with the Department of Homeland Security (DHS), CDC supports the protection of the

Nation through quarantine stations at major ports of entry to prevent the introduction, transmission, and interstate spread of communicable diseases into the United States.

CDC also provides support in the form of coordination, scientific expertise and guidance specific to the threat. This support is provided through a variety of structures, programs and mechanisms, including:

- CDC's Emergency Operations Center (EOC): The EOC serves as the command center for monitoring and coordinating CDC's response to public health emergencies. Since the Ebola activation, over 1000 CDC staff and contractors from across the Agency have provided expertise in the response, through the coordinated structure of the EOC.
- The Health Alert Network (HAN): The HAN is CDC's primary method of sharing information about urgent public health incidents with public information officers; Federal, state, territorial, and local public health practitioners; clinicians; and public health laboratories. HAN notices are sent to over 80,000 recipients, and it has the ability to reach over 1 million recipients when state and local jurisdictions cascade the information to their partners. The HAN has been used to provide guidance and response updates during the Ebola outbreak, see: <http://emergency.cdc.gov/han/>.
- CDC's Strategic National Stockpile (SNS): The Stockpile manages and delivers life-saving medical countermeasures during a public health emergency. It is the largest Federally-owned repository of pharmaceuticals, critical medical supplies, and medical equipment available for rapid delivery in health security threat situations. CDC's SNS is working to provide personal protective equipment as needed in case a hospital receives an Ebola patient.

- The Laboratory Response Network (LRN): CDC is the lead Federal Agency for the LRN, providing subject matter expertise, policy guidance, financial resources, standardized testing protocols and methods, and specially developed tests and quality controlled reagents to LRN member laboratories. The LRN is a coordinated network of public health, Federal, military, food testing, veterinary, environmental and international laboratories that can respond to biological, chemical, and other public health emergencies, including emerging infectious diseases like Ebola. Because of the infrastructure in place, CDC was able to quickly roll out Ebola testing methodologies and supplies to LRN laboratories.
- The joint CDC/USDA Select Agent Program: This program protects the Nation from accidental or intentional release of dangerous pathogens, through regulation of entities in the United States that handle select agents, and restrictions on their import into the United States. Since Ebola is designated as a select agent, laboratories and other entities that work with Ebola are subject to the Select Agent requirements, and the import of Ebola samples is subject to the Import Permit Program.

Ebola Preparedness - Protecting the United States

From the time the Ebola situation in West Africa escalated from an outbreak to an epidemic, we have anticipated that a traveler could arrive in the United States with the disease. We prepared for this possibility by working closely with our state and local partners, and with clinicians and health care facilities so that any imported case could be quickly contained. The occurrences in Dallas and New York underscore the need to carefully follow the protocols that are developed, to work closely across levels of government, and to continue our urgent effort to address the epidemic in West Africa. We will only get to zero risk here when we end the outbreak at its source.

The first imported case of Ebola in the United States, diagnosed on September 30 in Dallas in a traveler from Liberia, required CDC and the Nation's public health system to rapidly respond with control measures. As far as we have seen in Africa and the United States, Ebola only spreads from people who are ill or who have died, or from their body fluids. The two primary means by which Ebola spreads are unsafe care (prior to and after health care facility admission) and unsafe burials. Cultural norms that contribute to the spread of the disease in Africa – such as burial customs – are not a factor in the United States. Ebola can be stopped with appropriate triage, rapid diagnosis, and meticulous infection-control practices in American hospitals. CDC works to continue to apply the best science and lessons we are learning to inform our guidance and actions.

We have been constantly monitoring and improving our response in the United States, and will continue to do so. Our layered approach to protecting the United States begins with exit screening in the airports of the affected countries. This begins with intensive airport exit screening in the affected nations, including temperature scanning for outbound passengers, which CDC staff worked to implement. CDC and U.S. Customs and Border Protection (CBP) within DHS have implemented a rigorous program of entry screening for travelers. On October 11, entry screening began for passengers arriving at JFK airport, and at four additional airports on October 16. The four additional U.S. airports are Newark, Washington-Dulles, Chicago-O'Hare, and Atlanta-Hartsfield International. On October 21, 2014, DHS announced that all travelers coming to the United States by air from Ebola affected countries will be required to enter the United States at one of the five airports where enhanced screening measures are implemented. Also, CDC and DHS announced that, effective Monday, November 17th, entry screening would begin for travelers from Mali due to the evolving nature of outbreaks there. Screening includes an assessment for risk exposure and early signs of infection, and triage of passengers with clinical

symptoms. With this assessment, appropriate public health actions can be determined and implemented, including movement restrictions when warranted.

On October 27, CDC updated its interim guidance for monitoring people potentially exposed to Ebola and for evaluating their intended travel, including the application of movement restrictions when indicated, and, consistent with this guidance, partnered with all 50 states to begin a program of active monitoring for 21 days for any individual arriving from West Africa. This monitoring program begins at the airport – where CBP and CDC obtain detailed contact information and provide passengers with detailed information on monitoring along with thermometers, health information, a log for temperature and symptoms, contact information for state health departments, and a wallet card to refer to in case of illness. Travelers with fever (all of whom have tested negative for Ebola) have used this information to contact the 24/7 hotlines every state has established and have been transported safely, and cared for safely, while an Ebola diagnosis was being ruled out. State and local authorities are provided contact information and a detailed risk assessment for passengers, allowing them to take steps to appropriately actively monitor those with potential Ebola risks.

CDC is committed to providing immediate support to the state and local health care and public health officials. Within hours of confirming the cases of Ebola, CDC had a team of people on the ground in Dallas; in New York City, CDC had a team already on the ground assessing the hospital, and sent additional staff even before the patient's diagnosis was confirmed, in order to assist the capable teams from state health departments, local authorities, and hospital staff. We have worked side-by-side with state and local officials to do all we can to prevent transmission to others. CDC supported the state and local officials to monitor people who may have been exposed to Ebola in Texas, New York City, and Ohio. These individuals were tracked for 21 days for any signs of symptoms, and were quickly isolated

if symptoms developed. And, as of November 7, all contacts in both Texas and Ohio are out of the 21-day period of monitoring for onset of illness.

We were deeply concerned to have learned of transmission of the Ebola virus from the first, or “index” patient in the United States, to two health care workers in Dallas. While we may never know exactly how these transmissions occurred, they demonstrated the need to strengthen the procedures for infection-control protocols which allowed for exposure to the virus. The care of patients infected with the Ebola virus can be done safely, but it requires meticulous and scrupulous attention to infection control. Based on experience in Dallas, as well as at NIH and Emory University, we updated our guidance for the use of personal protective equipment in the assessment and treatment of Ebola in the United States. We recommended that facilities keep the number of workers who care for anyone with suspected Ebola to an absolute minimum. We recommended that the procedures that are undertaken to support the care of an infected individual be limited solely to essential procedures. We are recommending there be a full time individual who is responsible only for the oversight, supervision, and monitoring of effective infection control while an Ebola patient is cared for. We will continue to evaluate and improve infection control and preparedness as we learn more in the United States and elsewhere.

We have taken additional steps to increase the preparedness of hospitals. CDC is leading teams of public health infection control experts to assess the readiness of hospitals. This endeavor prioritized geographic locations around the hospitals where increased screening is occurring at airports and continues in a strategic manner. By November 17th, these teams had visited 41 hospitals in 12 states and the District of Columbia. Every hospital should have the ability to recognize the signs of a possible Ebola case and isolate that individual. Further, the Administration’s emergency funding request includes resources for the Department of Health and Human Services to strengthen infection control to prevent spread of Ebola and other infectious diseases in the United States. CDC is also increasing

training for health care providers, including web based seminars on donning and doffing of PPE, and in-person events, such as one held at the Jacob Javits Center in New York, which was broadcast live and attended in-person by more than 5,000 people.

Additionally, CDC continues to build capacity in our states through the Laboratory Response Network (LRN). In addition to CDC's own world class laboratories, 31 LRN labs now have capacity to test for Ebola, increasing access to timely diagnosis – and surge capacity in case it is needed. CDC is also extensively consulted to support evaluation and, when indicated, test people who may have Ebola. With heightened alert, we are receiving hundreds of inquiries for help ruling out Ebola in travelers– a sign of how seriously airlines, border agents, public health departments, and health care system workers are taking this situation.

On November 5, the Administration proposed an emergency funding request, including \$1.83 billion for CDC to enhance our efforts to address the situation. This request includes \$621 million designed to fortify domestic public health systems. This request allows us to fully implement the urgent strategies outlined above, and includes support for the following activities:

- Improve Ebola readiness within State and local public health departments and laboratories.
- Support state health departments to improve and accelerate infection control implementation throughout U.S. hospitals.
- Procure personal protective equipment (PPE) for the Strategic National Stockpile.
- Increase support for monitoring of travelers at U.S. airports and in states and communities.

Protecting the United States Through Stronger Global Health Security

Our top priority at CDC is to protect Americans from public health threats. We work 24/7 to do that and I have outlined the extensive work CDC does domestically to prepare for public health emergencies.

However, from our recent experience with Ebola and our historical experience with SARS and other threats, we cannot keep Americans safe without addressing threats at their source. We know, for example, that eliminating America's risk from Ebola requires us to bring the epidemic under control in West Africa. The current epidemic in Guinea, Liberia, and Sierra Leone is the first time an outbreak has been recognized in West Africa, the first-ever Ebola epidemic, and the biggest and most complex Ebola challenge the world has ever faced. We have seen cases imported into Nigeria, Senegal, and Mali from the initially-affected areas and we have also seen in Nigeria and Senegal that proven practices, such as contact tracing, monitoring, and isolation and care, can prevent a small number of cases from growing into a larger outbreak. We are working intensively in Mali to apply these control measures.

The Administration's proposed emergency funding request includes \$603 million for CDC efforts to control the epidemic in the hardest hit countries in Africa by funding activities including: infection control, contact tracing and laboratory surveillance and training; emergency operation centers and preparedness; and education and outreach.

To address broader global health security, the Emergency Funding Request before the Congress will allow us to help strengthen capacity for essential disease control in at-risk countries by strengthening lab networks that can rapidly diagnose Ebola and other threats, supporting emergency operations centers that can swing into action at a moment's notice, and training disease detectives who can find an emerging threat and stop it quickly. Building these capabilities around the globe is key to preventing this type of event elsewhere and ensuring that countries are prepared to deal with the consequences of outbreaks in other countries. The Administration's proposed emergency funding request includes \$606 million for CDC to strengthen global health security, reducing risks to Americans by addressing unanticipated threats and enabling the world to detect them early, respond swiftly before they become

epidemics, and prevent outbreaks wherever possible. 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 – such as 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. We cannot truly be prepared in the United States until there is a baseline level of preparedness internationally.

Thank you again for the opportunity to appear before you today to discuss CDC's domestic preparedness activities. I appreciate your continued interest in this issue and I look forward to answering your questions.