House Appropriations Committee

Subcommittee on Labor, Health and Human Services

Update on the U.S. Public Health Response to the Ebola Outbreak

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Good afternoon Chairman Cole, Ranking Member DeLauro, 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 protecting Americans. I am Dr. Thomas R. Frieden, Director of the CDC. I look forward to providing you with an update on the Ebola epidemic: the important steps we are taking to protect Americans here at home and our work to eliminate threats overseas. I thank Congress and this Subcommittee in particular for your support through investment in the Emergency Funding Request for Ebola to end the epidemic in West Africa, enhance preparedness capabilities in the United States and advance global health security capacity to prevent, detect, and respond to infectious disease outbreaks.

Status of the Epidemic

The response to the world's first documented epidemic of the disease has required an unprecedented public health intervention both in West Africa and the United States. The epidemic has emphasized the need for stronger global public health detection, response, and prevention capacity. Within a week of the initial disease report, CDC had an expert response team on the ground in Guinea. Since July 9, 2014, when CDC activated its Emergency Operations Center (EOC) for the Ebola response, CDC has sent more than 800 staff to West Africa on more than 1,500 missions, taking more than 40,000 work-days on the front lines to help stop spread of disease. While CDC has focused efforts

in the heavily affected nations of Guinea, Sierra Leone and Liberia, CDC also responded promptly to help Nigeria, Senegal, Mali, and other neighboring countries prevent travelers from further spreading Ebola. CDC continues to coordinate with and help mobilize multiple other governmental and non-governmental partners in the United States and globally, and to develop new diagnostics and support vaccine evaluation.

We are seeing promising outcomes from these efforts and the generous support of the American people, and our continued vigilance to end the epidemic is critical. Notwithstanding one recent case (after 29 consecutive days with no new cases), the epidemic in Liberia is clearly under control, and we hope to be able to get to zero in the coming months. In Sierra Leone, where CDC has had our largest team of epidemiologists, disease control experts, and others, the peak of the epidemic was about two months after that in Liberia. We are now seeing a similar reduction in cases, and believe that we are likely to see further progress as long as we continue to intensify the work. Guinea's challenges are greater: it has a larger population and area than the other two countries combined. Guinea has made progress, essentially eliminating Ebola from the forest area – a region about the size of Sierra Leone. But we have much more to do there, and we continue to intensify our response. Our health security depends on health security around the world – making getting to zero in West Africa an imperative.

Protecting Americans

To help hospitals prepare for possible additional cases of Ebola, CDC experts in infection control, occupational health, and diagnostic laboratory practices have visited 81 facilities in 21 states plus Washington, D.C.; 55 of them were identified by states as facilities prepared to care for a patient with suspected Ebola. In August 2014, 13 LRN laboratories in 13 states were qualified to test for Ebola. CDC has qualified 56 state, county, and local public health laboratories to perform Ebola testing using a DoD assay which the FDA approved.

CDC has established Ebola Response Teams consisting of CDC experts in epidemiology, clinical care, infection control, laboratory, and communications. These teams stand ready to deploy to any hospital in the United States with a probable or confirmed Ebola case.

CDC worked closely with the United States Customs and Border Protection and state and local public health departments to establish a system to track more than 10,000 travelers who returned from Ebola-affected countries since August 2014. Travelers are monitored for 21 days by local public health authorities and health departments are prepared to facilitate safe transport to a hospital ready to assess them for Ebola if they develop fever or other concerning symptoms. In coordination with these partners, 101 individuals were ultimately tested for Ebola infection after travel from the affected countries and none have been diagnosed with Ebola.

Eliminating Ebola in West Africa

Close coordination with partners has allowed CDC to quickly enhance existing efforts and implement a comprehensive, coordinated public health response to contain and end the Ebola epidemic in West Africa through the following strategies.

Incident management. CDC's first priority when Ebola reached epidemic status in West Africa was establishment of incident management systems, including EOCs, to be run by national leaders in each of the 3 heavily affected countries.

Epidemiology and surveillance. Working with national governments and the World Health Organization (WHO), CDC epidemiologists supported national and district-level staff in each country to better track and respond to the epidemic.

Laboratory testing. Global collaboration with laboratories from an EU consortium made real-time genetic testing available in each of the countries. CDC laboratory experts helped coordinate with the laboratory section of the incident management system. CDC supported laboratories throughout

Liberia and operated a field laboratory in Sierra Leone, which has now processed more than 12,000 samples.

Contact tracing. Working with national counterparts and WHO, CDC improved the quality of contact identification and follow-up, including isolation of symptomatic contacts for laboratory testing. This is critical to controlling Ebola.

Rapid response outbreak control. Starting in late September, CDC worked with partners to implement a rapid response approach to new cases of Ebola in Liberia, an intervention known as Rapid Isolation and Treatment of Ebola (RITE). RITE teams cut the length of outbreaks in half and improved survival outcomes, and the approach is now being implemented in Sierra Leone and Guinea.

Infection control. CDC trained more than 23,000 health care workers in the 3 countries in infection control, including guidance on personal protective equipment. CDC also has provided a 3-day, hands-on training course on approaches to clinical care and infection control for Ebola, originally designed by Doctors Without Borders (Médecins Sans Frontières or MSF), for nearly 500 United States based health care workers and other international staff planning to work in West Africa.

Communications. All of CDC's staff deployments included health risk communication specialists essential to generate and disseminate accurate audience-appropriate information, address rumors, reduce stigma and decrease unsafe burial practices (which has proved critical to the response, since it was such a considerable means of transmittal). Our health communicators have worked with partners in the 3 countries to identify and implement strategies to ensure respectful response efforts that are sensitive to community needs and perceptions.

Technical guidance. CDC issued more than 150 technical guidance documents covering many aspects of the response, both in the United States and globally.

Mobilization of partners. During the summer, CDC recognized that even with superb work by MSF, commitment by the countries themselves, and a response from other international partners, the

epidemic was moving faster than the response and was spiraling out of control. CDC therefore worked to increase involvement throughout the United States Government and the global community.

Exit screening. CDC staff worked with ministries of health and airport authorities in all 3 heavily affected countries, as well as in other affected countries, to establish screening of every traveler leaving affected countries by air to prevent sick travelers from boarding planes.

Innovation. CDC laboratory scientists have worked with private industry and others to implement high-throughput laboratory capacity using robotics, and to promote the development of a rapid test for Ebola designed for use in the field. This innovation may enable us to diagnose most cases within 30 minutes using a simple finger stick or oral swab. In addition, CDC staff are working with Sierra Leonean authorities to implement a vaccine candidate trial among health workers in that country, in parallel with an NIH trial of a vaccine in Liberia.

Global Health Security Agenda (GHSA)

The West Africa Ebola outbreak is unprecedented. In contrast to previous outbreaks, it is larger, more widely distributed, affects multiple countries, new geographical areas, and in large urban areas for the first time ever. The outbreak, which grew quickly to an epidemic, could have been detected and fought more swiftly if the three affected countries had effective surveillance and containment systems in place before 2014. Our funding to advance the Global Health Security Agenda prioritizes countries that are particularly susceptible to Ebola virus disease importation and other high impact infectious diseases, as well as nations that are high-priority due to poor infrastructure, countries serving as major transport hubs, and high population density centers. CDC is working to enhance global health security capacity in vulnerable countries to prevent, detect, and rapidly respond to outbreaks before they become epidemics by standing up emergency operations centers; providing equipment and training needed to test patients and report data in real-time; providing safe and secure laboratory capacity; and developing a trained workforce to track and end outbreaks before they become epidemics.

In Uganda, for example, where CDC and other partners have provided global health security assistance and broader health-related support for years, cases of Ebola and Marburg are now rapidly diagnosed, infection control and contact tracing is quickly implemented, and outbreaks are either stopped rapidly or prevented altogether.

With FY 2015 Emergency Funds, CDC is working in partnership with other United States Government partners and other host governments to apply these best practices and our lessons learned from the Ebola response to achieve specific, measurable capacity working with countries that do not yet have the capacity to prevent, detect and rapidly respond to infectious disease threats, whether naturally occurring, deliberate or accidental. . Specifically, CDC is working with partners to implement all of the Global Health Security Agenda targets to establish the capability required to contain and stop the Ebola epidemic in West Africa, including incident management – the ability to establish emergency operations centers; surveillance – the foundation for making decisions about how to respond to outbreaks; laboratory networks; biosafety and biosecurity systems, immunization, zoonotic disease surveillance, antimicrobial resistance, real-time biosurveillance systems, medical and non-medical countermeasures and personnel deployment, multi-sectoral response capacity, and workforce training. Investing in these health capacities will help countries prevent, detect, and respond to outbreaks of other dangerous pathogens - man-made or naturally occurring.

Conclusion

CDC's response to the Ebola epidemic has been the largest emergency mobilization in the agency's history, and will continue until we have reached and remain at zero cases. The epidemic initially spread faster than CDC and national and international counterparts could mount an effective response.

Stronger national and international systems for prevention, detection, and response to infectious disease threats are needed urgently. Paradoxically, the world may be better prepared to find and stop

emerging health threats than at any time in history, yet the world also is at greater risk for rapid spread of infectious diseases in our increasingly interconnected world. Global health security systems can prepare for large-scale emergencies if they are in place around the world, and if we use them on a daily basis to respond to routine health problems and can ensure that they can be rapidly scaled up when needed. With a focused global effort, and vigilance at home, we can stop this epidemic, protect Americans, and leave behind a system in West Africa and elsewhere to find, stop, and prevent Ebola and other biological threats in the future.

Thank you again for the opportunity to appear before you today. I appreciate this Committee's support and I look forward to answering your questions.