Written Testimony
Senate Health, Education, Labor and Pensions Committee

Medical and Public Health Preparedness and Response: Are We Ready for Future Threats?

Statement of

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Good morning Chairman Burr, Senator Casey, and members of the Committee. I am Rear Admiral Stephen Redd, Director of CDC's Office of Public Health Preparedness and Response. I am pleased to appear before the committee today to discuss the state of public health preparedness in the United States and the role that the Pandemic and All-Hazards Preparedness Reauthorization Act of 2013 (PAHPRA) and other legislation play in improving the health security of the Nation.

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; and epidemics (Influenza). Whether the hazard is naturally-occurring (Ebola, Middle East Respiratory Syndrome, and hurricanes), accidental (the 2014 West Virginia chemical spill) or intentional (Boston Marathon bombings and anthrax attacks), effective public health emergency response depends on building, maintaining and constantly improving 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.

In support of the National Strategy to Combat Antibiotic Resistance Bacteria (CARB) released in September 2014, CDC is also working with other HHS agencies and executive branch departments to address the growing threat of antibiotic resistance. Without rapid and coordinated action, antibiotic resistance threatens public health progress made over the last century from the discovery and development of antibiotic drugs, thereby threatening patient care, economic

growth, public health, agriculture, economic security, and national security. The President's FY 2016 Budget supports implementation of the National Strategy by nearly doubling the amount of Federal funding for combating and preventing antibiotic resistance to more than $1.2 billion. The funding will improve antibiotic stewardship; strengthen antibiotic resistance surveillance and prevention capacity; and drive research innovation in the human health and agricultural sectors.

Role of State and Local Public Health Agencies

State and local public health agencies are the lead entities in public health preparedness and response. CDC provides ongoing technical assistance and, if requested, will provide on-the-ground personnel to assist with a state's response effort. For example, CDC personnel are providing laboratory capacity and communications support to California public health agencies in response to the current measles outbreak. Investments in preparedness since 2001 have greatly increased the Nation's public health preparedness for all hazards. One of the lessons learned as a result of responding to the 9/11 and anthrax attacks was that state and local health departments lacked critical capabilities needed to mount an emergency response, and the Nation's public health system also was unable to provide essential public health services during an emergency. Health departments lacked laboratory networks, electronic disease surveillance systems, risk communication networks, and emergency operations centers.

Successful state and local response to public health emergencies depends upon many factors, including a capable state and local public health and healthcare system. Since 2002, CDC has awarded more than nine billion dollars to improve preparedness at the state and local level, first

through the Cooperative Agreement for Preparedness and Response to Bioterrorism, and then through the Public Health Emergency Preparedness (PHEP) cooperative agreement authorized by the Pandemic and All-Hazards Preparedness Act of 2006 (PAHPA) and reauthorized as PAHPRA in 2013. PHEP currently supports 62 awardees – including all 50 states, eight territories and freely-associated states, and directly-funded cities (New York City; Washington, D.C.; Chicago; and Los Angeles) – according to a base-plus population formula prescribed by statute, which ensures a minimum amount of funding to each awardee. These funds support staff, enable exercises, provide for training, pay for equipment, and provide other services essential to maintaining preparedness. 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 gaps in preparedness capabilities. Congress appropriated $571 million to CDC to enhance domestic preparedness and response for Ebola including state and local preparedness, laboratory capacity, and expanded entry screening. Cooperative agreements under CDC's PHEP program and the Hospital Preparedness Program (HPP), overseen by the Assistant Secretary for Preparedness and Response (ASPR), are managed through a joint funding opportunity announcement. This collaboration reduces the administrative burden on the awardees through a single application process for both cooperative agreements.

In 2011, CDC published the *Public Health Preparedness Capabilities: National Standards for State and Local Planning* to better focus the preparedness activities of state and local health departments.[1] The 15 capabilities serve as national public health preparedness standards and help

[1] http://www.cdc.gov/phpr/capabilities/index.htm

ensure Federal preparedness funds are directed to priority areas. State, local and territorial health departments allocate PHEP funds based upon their strategic priorities. Awardees devote nearly 50 percent of their funding to building and sustaining Public Health Surveillance and Epidemiological Investigation and Public Health Laboratory Testing capabilities, core public health activities that help protect their communities. Remaining funds are invested in the other 13 capabilities – Community Preparedness, Community Recovery, Emergency Operations Coordination, Emergency Public Information and Warning, Fatality Management, Information Sharing, Mass Care, Medical Countermeasure Dispensing, Medical Materiel Management and Distribution, Medical Surge, Non-Pharmaceutical Interventions, Responder Safety and Health, and Volunteer Management.

Each year the 62 PHEP awardees report data on their current status for each capability. The data and supporting documentation are validated by CDC's Office of Public Health Preparedness and Response. Aggregate awardee scores show increases in 14 of the 15 capabilities over the past three years. The 2014 response to Ebola cases in the United States illustrates one of the impacts of PHEP funding throughout the past decade. Through that funding, state and local health departments across the country built their capability to perform effective contact tracing to help identify individuals who may have been at a higher risk for infection due to contact with a person with Ebola or due to travel from one of the highly affected countries in West Africa.

Lessons learned from real-life events

While training and skill development are important, exercises and real-life events provide opportunities to put those skills to work. PHEP awardees are required to demonstrate their capabilities at least once a year by conducting an exercise and evaluating their performance

through an after-action review process. Oftentimes, jurisdictions are able to use real incidents in their communities to test operational readiness to respond to public health emergencies. After-action reviews collect data about successes and areas for improvement identified during unexpected incidents, exercises, and planned events such as festivals or concerts that draw large crowds. Data from these reviews are used to identify strengths for sustainment and gaps for future capability development. Use of this information is key to improving performance for the next incident.

The review process following the 2009 national response to the H1N1 Influenza pandemic provides a good example of how identification of an obstacle encountered during a response can be a catalyst for changes that improve preparedness for future events. At the state and local levels, employees supported through Department of Health and Human Services (HHS) grants that were funded by non-influenza programs were not able to assist in response to the flu outbreak due to restrictions on performing tasks outside of the funding for their normal work. In some areas where there were not enough staff for the H1N1 response, this restriction prevented additional state and local staff from performing surveillance or providing vaccinations. Federal and state partners identified this issue, and the Congress provided new authorization in PAHPRA in 2013 that provides a mechanism for states to request that a worker at the state or local level who is funded under programs authorized by the Public Health Service Act be allowed to assist, based on specified criteria, in a response to a Federally-declared public health emergency. This provides additional flexibility and scalability to support quick and effective responses to public health emergencies.

A strong laboratory network

Rapid identification of disease is critical to addressing public health threats before they become a crisis. CDC's Laboratory Response Network (LRN) maintains an integrated network of state and local public health, Federal, and international laboratories that can respond to biological, chemical, and other public health threats. The linking of state and local public health laboratories, veterinary, agriculture, and water- and food-testing laboratories is unprecedented and provides for rapid testing, timely notification and secure messaging of laboratory results. The LRN demonstrates a scalable and flexible asset to address public health threats.

In response to the West Africa Ebola outbreak, CDC collaborated with the Department of Defense (DOD) to equip select LRN laboratories around the United States with the ability to quickly and accurately test specimens for the outbreak strain of Ebola virus. Prior to the current outbreak only two LRN laboratories were capable of performing an Ebola test – DOD's United States Army Medical Research Institute of Infectious Diseases and CDC laboratories. By August 1, 2014, CDC provided the FDA emergency use authorized DOD assay to 13 LRN public health laboratories in states chosen based on geography and the number of travelers arriving from West Africa. Currently, 55 laboratories in 43 states have completed proficiency testing with the DOD Ebola assay, and CDC continues to work with LRN laboratories to acquire and maintain capacity to handle Ebola specimens.

Medical countermeasures for public health responses

CDC's Strategic National Stockpile (SNS) manages and delivers life-saving medical countermeasures during a public health emergency. Valued at approximately $6.3 billion, it is the

largest Federally-owned repository of pharmaceuticals, critical medical supplies, Federal Medical Stations, and medical equipment available for rapid delivery to support Federal, state, and local response to health security threats. If a biological, chemical, radiological, or nuclear event occurred on U.S. soil tomorrow, the SNS is the only Federal resource readily available to respond once state and local medical countermeasure supplies are depleted.

CDC works with ASPR and with other Federal agencies, through the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE), to prioritize Federal investments in medical countermeasures based on analysis of risk and support of critical markets. SNS procurements and the advanced development and procurement mechanisms managed through ASPR are critical to maintaining production capacity for products with no commercial market and products for which commercial supplies may be insufficient to meet demands during an emergency.

Just as important as having the right medical countermeasure on the shelf in the SNS is knowing our public health partners at the state and local levels will be able to effectively and efficiently receive those assets from the SNS and get them to the individuals in need of treatment or protection in time. For this reason, CDC offers training programs to ensure that our partners have the knowledge and skills they need to distribute and dispense SNS assets in a timely manner, and CDC supports exercises to test the skills of trained responders and evaluate plans for possible improvements. These trainings and exercises help our partners improve their preparedness and establish confidence in their ability to respond.

Jurisdictions face ongoing challenges when planning to dispense medical countermeasures to large populations. Whether it is the availability of staff or infrastructure to support dispensing of medical countermeasures to large populations, few state or local public health agencies have the resources at their disposal to meet the required dispensing timelines. For this reason, CDC engages with the private sector to establish agreements for support of medical countermeasure dispensing. These partners, who range from nationwide retail, pharmacy and hospitality chains to faith based and community organizations, all make commitments to support dispensing of countermeasures in the communities they serve. These partnerships, when working with local public health officials, improve efficiency, provide additional means to dispense medical countermeasures to populations within the community and reduce the burden on local public health responders during times of urgent need.

Conclusion

Public health threats are everywhere. From the reemergence of measles, which hadn't been a problem in the United States for years, to the Ebola virus, a threat from the other side of the world, to an earthquake that can strike without warning, the public health system must remain vigilant to protect U.S. residents.

Preparedness is not a destination. It is a process of skill development, using lessons learned to help us adapt to the current environment and better prepare us to address future threats. CDC will continue to work with our Federal, state, territorial, local and tribal partners to ensure necessary capabilities are maintained to keep the public safe. I look forward to our continued partnership with the Congress and would be glad to answer any questions you may have.