



**A healthier, safer world:** Diseases know no boundaries, so CDC is ready to protect America by rapidly detecting and containing health threats anywhere in the world. Together, we can help CDC protect us all by strengthening health systems around the globe.

## Fighting global health threats

**The issue:** In today's interconnected world, a health threat anywhere is a health threat everywhere. Global health threats like Ebola, Zika and influenza have a direct impact on Americans' health, safety and security, yet we remain under-prepared.

**Why it matters:** The best way to stop an outbreak is to stop it at its source. Ebola reminded the world that all countries need safe, secure and strong laboratories, a well-trained workforce, real-time disease surveillance systems and a robust emergency command structure. If an outbreak is not detected early and controlled, it can spread rapidly—causing loss of life, devastating health systems, stalling future development and even leading to political instability. Beyond the human toll, health emergencies can disrupt local, regional and international economies and create a global economic impact.

**Solution and impact:** In 2016 alone, CDC tracked over 35 dangerous pathogens in more than 130 countries. Global health security is critical to protecting and saving lives by preventing illness and deaths globally and domestically; improving countries' ability to meet their health commitments to the world; and reducing the impact on travel and trade. A global Joint External Evaluation (JEE) tool, developed by CDC and its partners, identifies the most urgent gaps in public health systems and provides a road map to identify where resources are needed most. To date, more than 40 countries have completed, or plan to complete, this voluntary process.

**About us:** The CDC Foundation is an independent, nonprofit organization and the sole entity created by Congress to mobilize philanthropic resources to support CDC's critical health protection work. Since 1995, we have launched nearly 1,000 programs in more than 130 countries and raised over \$740 million through engagements with philanthropies, corporations, organizations, governments and individuals.

**How you can help:** Beyond federal support, philanthropic and private sector investments are essential to ensure CDC's ability to support the global community in detecting and responding to urgent health threats and stopping these threats at their source. CDC has a unique role in protecting America's health security, and its world-class experts are dedicated to containing diseases before they become epidemics that could affect us all. Based on gaps identified by the JEE road map, the CDC Foundation can guide private-sector partners to areas where their resources can be most impactful in the fight against global threats.

**Learn more:** To invest in CDC's efforts to strengthen global health, or to learn more, contact Advancement at the CDC Foundation: [advancement@cdcfoundation.org](mailto:advancement@cdcfoundation.org), 404.653.0790.

## CDC works with others to strengthen global health security in four key areas



**LABORATORY**



**SURVEILLANCE**



**EMERGENCY OPERATIONS**



**WORKFORCE DEVELOPMENT**

## Stories of impact: CDC lab was important outpost in Ebola war



**You can make a difference:** Beyond federal support, investments by the philanthropic and private sector are essential to protect all nations from deadly disease outbreaks.

With its yellow walls and simple tin roof, the Centers for Disease Control and Prevention (CDC) lab in Bo, Sierra Leone, would be easy to overlook. Although there were no indications that this tiny lab sat squarely on the front lines in the fight against Ebola, it was vital to efforts to turn back the epidemic in Sierra Leone.

Tasked with testing the samples brought to the lab from seven of Sierra Leone's 15 districts, CDC microbiologists Bobbie Rae Erickson and Shelley Campbell, and their CDC colleagues, understood better than anyone the enormity of the epidemic.

During the outbreak, which evolved into an epidemic, more than 11,300 people died and more than 28,600 were infected with Ebola in West Africa. Testing numerous blood and swab samples each day, speed was critical.

"To be able to get the results out faster meant you could move patients much more quickly," Erickson said. "You could start the contact tracing much faster as well, and get patients into treatment."

To aid in that mission, the CDC Foundation stepped in with crucial support. By utilizing more than \$50 million in funding provided by donors, the CDC Foundation played a critical role in helping CDC respond quickly and flexibly to the Ebola outbreak. Funding for lab equipment and supplies for the Bo lab was provided primarily by a Robert Wood Johnson Foundation grant.

"One way the CDC Foundation helped was with machinery that allowed us to process faster and with more numbers," Erickson said. "The machines we use are able to process between 15-90 samples in 20 minutes, saving valuable time and allowing for high sample loads and overall results in 6 to 12 hours."

From August 2014 to January 2015, the lab in Bo conducted diagnostics on more than 11,000 samples. With samples arriving daily, and still others flown in three times per week by helicopter, the small CDC lab in Bo worked well into each night to meet the demand. So infectious was the Ebola virus that lab staff sprayed the packaging and paperwork of all samples received with a disinfectant solution before handling them.

They donned full personal protective equipment (PPE) to test the actual samples in a small, well-ventilated facility behind the lab itself. Because working in the confines of the lab was physically isolating, Campbell said, they needed to stay focused on the bigger picture of saving lives while processing the samples each day.

**"The machines were able to process 15 to 90 samples in 20 minutes."**

*—Bobbie Rae Erickson*

Campbell recalled a particularly heartbreaking case that put a face for her on the Ebola crisis. "We had an 11-year-old girl dropped off at the gate of the Ebola treatment unit," Campbell said. "The workers had to stay six feet away from her, so just watching her walk in alone from the gate was very hard. She died that night."

On their second deployment to West Africa, Campbell and Erickson knew well the long-term needs in Sierra Leone. Addressing that need to strengthen the health infrastructure was CDC's top priority, while still continuing to fight the virus by processing as many samples as quickly as possible.

**Learn more:** To find out how you can help CDC, or to learn more, contact Advancement at the CDC Foundation: [advancement@cdcfoundation.org](mailto:advancement@cdcfoundation.org), 404.653.0790..