



EMERGING AND ZOOONOTIC INFECTIONOUS DISEASES

Diseases can cross communities and borders, but CDC helps combat infectious disease threats whenever and wherever they arise. CDC spared no effort to respond to the world's largest Ebola outbreak in 2014. We also quickly detect and stop foodborne outbreaks, track and eliminate dangerous infections in hospitals and clinics, investigate deadly viruses and bacteria. We prevent germs from spreading to people from animals and insects, protect U.S. communities from communicable diseases from other countries, and discover new or mutated germs while fighting drug-resistant microbes.



#1

Norovirus is the leading cause of disease outbreaks from contaminated food in the U.S.



850,000

About 850,000 people were trained on the latest Ebola guidance such as personal protective equipment use, infection control, and entry and exit screening.



CDC makeshift office in the bush for disease detectives hunting down Ebola contacts.

KEY ACCOMPLISHMENTS

- Provided disease surveillance, contact tracing, data management, laboratory testing, and health education. CDC partnered with U.S. Customs and Border Protection to conduct enhanced airport screening at five U.S. airports and helped prepare U.S. hospitals to safely treat Ebola patients. Sent hundreds of staff to West Africa for the Ebola outbreak.
- Identified more quickly the cause of Listeria infection outbreaks, a common cause of food poisoning. The Advanced Molecular Detection (AMD) method allowed CDC to identify 28% of the food sources in Listeria cluster outbreaks. Standard methods identified only 6%. Using whole genome sequencing and bioinformatics, AMD methods can also identify and help stop other major health threats, including Ebola, antibiotic-resistant infections, Middle East Respiratory Syndrome, and Enterovirus-D68, a deadly respiratory virus striking children.
- Prepared the U.S. public health system to respond to chikungunya, a virus spread by mosquitoes and suspected of sickening more than 1 million people in the Caribbean and the Americas.



20%

Hospitals following infection control recommendations reduced *C. difficile* infection rates by 20% in less than 2 years.



\$20 BILLION

Annual cost to U.S. economy due to antibiotic-resistant infections is \$20 billion.

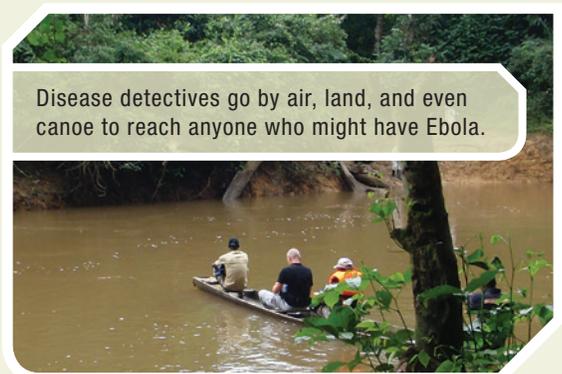
CDC DISEASE DETECTIVES GO THE DISTANCE

How far will CDC's "disease detectives" go to track down the Ebola virus? In the case of Satish, a CDC medical officer fighting Ebola in Liberia, the hunt to find people possibly exposed to the deadly virus required a 6-hour drive, nearly another 4 hours crossing narrow jungle paths and rickety bridges, and, finally, a river voyage in a dugout canoe.

"Cases of Ebola in Liberia were showing up in remote areas," Satish said. "In many instances, someone who contracted Ebola in the capital city of Monrovia took it back to their community. This led to sustained transmission that was hard to stop because it was so difficult to reach these communities."

Satish is part of a RITE (Rapid Isolation and Treatment of Ebola) team, which uses a strategy developed by the Liberian Ministry of Health and Social Welfare, CDC, and other partners. RITE teams trace Ebola cases to remote villages and towns to stop transmission of the virus.

The RITE team visited every household, asking villagers about Ebola symptoms and identifying anyone who had come in contact with symptomatic patients. "The villagers liked that we stayed with them," Satish said. "It helped establish a sense of trust."



Disease detectives go by air, land, and even canoe to reach anyone who might have Ebola.