GLOBAL DISEASE DETECTION

Advancing the Science of Global Public Health

➤ DID YOU KNOW

- ► Three of the top 10 causes of death globally are from infectious diseases? [1]
- ► Most of these deaths are occurring in low- and middle-income countries? [2]
- ► About 2/3 of the world's countries remain unprepared to prevent, detect, and respond to infectious disease threats? [3]

➤ HOW WE HELP

CDC's Global Disease Detection program rapidly detects, accurately identifies, and promptly contains emerging infectious diseases and bioterrorist threats to promote global health security. We track outbreaks and deploy staff through the Global Disease Detection Operations Center.

➤ WHERE WE ARE

Bangladesh, Central America (Guatemala), Central Asia (Kazakhstan), China, Egypt, India, Kenya, South Africa, South Caucasus (country of Georgia), and Thailand.

★ GDD Operations Center
● GDD Centers
▪ Countries reached

BY THE NUMBERS

10
Ten GDD Centers have extended support to nearly 50 countries

12
Discovered 12 pathogens new to the world

75 M+
People under surveillance for key infectious diseases and syndromes

30-40
GDD Operations Center monitors 30 – 40 public health threats daily

WHO WE ARE

- **Veterinarians**
- **Public Health Advisors**
- **Laboratorians**
- **Field Epidemiologists**
- **Medical Officers**
- **Health Communicators**

HOW WE DO IT | IMPACT

Outbreak Response:
Respond to disease outbreaks and other public health emergencies

- ► Responded to 1,700 disease outbreaks
- ► Nearly 2/3 of outbreaks responded to within 24 hours
- ► Comprehensive response: 85% of outbreaks that involved lab support were given a confirmed cause

Pathogen Discovery:
- ► Identify disease threats before they spread
- ► Conduct innovative research into the epidemiology and biology of emerging infections

- ► Discovered 12 pathogens new to the world
- ► Increased capacity to identify pathogens, through 289 diagnostic tests, leading to faster response times worldwide

Training:
- ► Build a global health workforce
- ► Improve the quality of epidemiology and laboratory science

- ► Trained ~100K participants on epidemiology, laboratory, all hazards preparedness, risk communication and other topics

Surveillance:
Strengthen systems to detect, assess, and monitor infectious disease threats

- ► Over 75 million people under surveillance for key infectious diseases and syndromes
- ► Data is used to detect outbreaks, make policy recommendations, evaluate interventions, and measure public health impact

Build network capacity:
Enhance collaboration through shared resources and cooperation

Cumulative data from 2006 - 2014

With WHO and local ministries of health:
- ► Worked to control the spread of infections, including antibiotic resistance, in healthcare settings

With WHO and other partners:
- ► Assessed countries' ability to meet International Health Regulations (IHR)

"The U.S. and the world are at a greater risk today than ever before from biological organisms. In today's globalized world, an outbreak anywhere is a threat everywhere."

– CDC Director Tom Frieden, MD, MPH

CDC