Public health worker learns how to use personal protective equipment at a CDC-GHSA facilitated training in Guinea. Through the GHSA, CDC and RTI train public health workers around the globe to fight the next pandemic. (Patrick Adams/RTI International)

Front cover photo credits clockwise: CDC India, Hardeep Sandhu, Alaine Knipes
Back cover photo credits clockwise: Patrick Adams/RTI International, Athit Perawongmtha, Victor Balaban
Stopping outbreaks at the source. Protecting America’s future.

CDC works 24/7 to protect the health security of America by fighting dangerous disease threats around the world. We are the frontline responders, containing outbreaks overseas so they do not reach our shores.

What Is the GHSA?

The Global Health Security Agenda (GHSA) is a global effort to strengthen the world’s ability to prevent, detect, and respond to public health emergencies and infectious disease threats, whether they are naturally occurring, or accidentally or intentionally released. The Centers for Disease Control and Prevention (CDC) plays a leading role in the implementation of the GHSA.

Why Does It Matter?

Public health threats, emergencies, and infectious diseases do not recognize boundaries. CDC knows that the most effective way to contain outbreaks is to stop them before they spill over into other countries. CDC works with priority GHSA countries to strengthen their capabilities to identify threats, track dangerous diseases, and tackle outbreaks or other public health emergencies at their source. CDC monitors public health threats 24/7 and has trained rapid response teams ready to deploy anywhere in the world when countries need support to contain these threats. Having strong public health systems globally lessens the chance that health threats will affect the United States.

GHSA builds capabilities to achieve 11 specific Action Package targets:

- Antimicrobial Resistance
- Zoonotic Disease
- Biosafety & Biosecurity
- Immunization
- National Laboratory System
- Real-Time Surveillance
- Reporting
- Workforce Development
- Emergency Operations Centers
- Linking Public Health with Law Enforcement & Multisectoral-Rapid Response
- Medical Countermeasures & Personnel Deployment

11 GLOBAL HEALTH SECURITY ACTION PACKAGES ➔ ACROSS 3 PRIORITY AREAS ➔ TO ACHIEVE 3 CRITICAL HEALTH SECURITY IMPACTS

- Prevent
  - Prevent avoidable outbreaks
- Detect
  - Detect threats early
- Respond
  - Respond rapidly and effectively
**Global Health Security Agenda (GHSA) Countries Supported by the CDC**

Where Is CDC Working Through the GHSA?

GHSA is a partnership of more than 50 nations committed to building global health security capabilities using clear, measurable targets. CDC’s work is divided into three areas:

- 17 priority countries receive direct financial support and technical assistance from CDC staff
- 14 countries receive only technical assistance from CDC

How Does CDC Do It?

GHSA is aimed at improving countries’ ability to prevent, detect, and respond to infectious disease threats. CDC works closely with governments and partners to reach targets across 11 domains, known as Action Packages. Each Action Package includes a 5-year target, indicators by which to measure progress, and monitoring and evaluation activities to support successful implementation. Action Packages focus on the core strengths needed to effectively combat outbreaks and epidemics, such as disease surveillance, laboratory systems, workforce development, and emergency management.
Prevent avoidable epidemics, including naturally occurring, intentional, and accidental outbreaks.

CDC-Supported Achievements in 17 Priority Countries

<table>
<thead>
<tr>
<th></th>
<th>Antimicrobial Resistance</th>
<th>Zoonotic Disease</th>
<th>Biosafety/Biosecurity</th>
<th>Immunization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Countries</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Total Population</td>
<td>1.8 billion</td>
<td>514 million</td>
<td>301 million</td>
<td>1.6 billion</td>
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<tr>
<td>Expanded surveillance for</td>
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<td>drug-resistant bacteria by</td>
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<td>strengthening lab capacity</td>
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<td>and training critical staff</td>
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<td>to collect critical data</td>
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<td>Developed or strengthened</td>
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<td>multisectoral mechanisms</td>
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<td>to limit animal-to-human</td>
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<tr>
<td>spillover of zoonotic</td>
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<tr>
<td>diseases</td>
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<td>Inventoried dangerous</td>
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<td>pathogens and developed a</td>
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<tr>
<td>plan to manage them</td>
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<tr>
<td>Strengthened surveillance</td>
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<tr>
<td>systems to inform</td>
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<tr>
<td>community immunization</td>
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<tr>
<td>campaigns that target</td>
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<tr>
<td>vulnerable groups</td>
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</tbody>
</table>

Why It Matters:

Antibiotics have been used so widely and for so long that infectious organisms that cause disease have adapted to them, causing them to be less effective and requiring more expensive treatment options.

An estimated 7 out of 10 infectious diseases are zoonotic, meaning that they spread from animals to humans, which makes coordination between ministries of agriculture and health critical.

Dangerous pathogens need to be handled carefully and stored securely to prevent them from accidentally or intentionally being released and harming the public.

Effective immunization systems reduce illness and death from vaccine-preventable diseases, and help limit the magnitude and number of infectious disease outbreaks.

CDC’s Contributions in Prevention

- Reduce factors that enable antimicrobial resistance and the spread of zoonotic diseases in humans
- Promote safe and secure ways to manage biological materials to reduce the risk that harmful pathogens fall into the wrong hands and are used as weapons to harm the public
- Establish and strengthen vaccination programs to keep children free of highly contagious diseases

Kenya Stops Anthrax Outbreak in its Tracks

Using CDC global health security training, disease detectives and veterinarians worked together to stop an anthrax outbreak in Nakuru, Kenya. Veterinarians first noticed signs of the pathogen in cows, and alerted Kenya’s public health officials. They were able to detect the disease early, stopping it from becoming a life-threatening outbreak and spreading to livestock and people in other countries.

Veterinarians first noticed signs of anthrax infection in cows in Nakuru, Kenya. With CDC’s assistance, responders were able to contain the outbreak. (David Snyder/CDC Foundation)

CDC keeps Americans safe by preventing disease threats like anthrax from reaching U.S. shores. #globalhealthsecurity #CDCprotectsyou
Detect threats, including emerging biological threats, at the earliest possible moment

CDC-Supported Achievements in 17 Priority Countries

<table>
<thead>
<tr>
<th>National Lab Systems</th>
<th>Surveillance</th>
<th>Reporting</th>
<th>Workforce Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Countries</td>
<td>13</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Total Population</td>
<td>2.1 billion</td>
<td>1.6 billion</td>
<td>1.7 billion</td>
</tr>
</tbody>
</table>

- Applied new equipment and capabilities in detecting dangerous pathogens
- Expanded surveillance systems to detect 3 or more of the world’s most dangerous diseases
- Improved timeliness and/or geographic coverage of routine public health threat reporting
- Established and/or maintained public health workforce training programs by providing funding, staff, and technical assistance

Why It Matters:
- Confirming diagnoses with labs allows health workers to respond accurately and quickly with the most effective treatment and prevention methods
- Effective disease surveillance enables countries to quickly detect outbreaks and continuously assess risks
- Procedures and systems for reporting potential outbreaks allow experts to assess public health events and respond rapidly
- To maintain global health security capabilities, countries need skilled staff at all levels in laboratories, communities, healthcare centers, and Emergency Operations Centers

CDC’s Contributions in Detection

- Establish monitoring systems that can predict and identify infectious disease threats
- Strengthen countries’ ability to quickly and accurately collect public health information and use it for action
- Train disease detectives and laboratory scientists who can find and contain outbreaks before they spread

India Takes the Mystery out of Mystery Fevers

Before CDC India and its partners started to build public health capacity through GHSA, people with mystery fevers who sought treatment at the remote Thirthahalli Hospital in India often had to either wait weeks for test results or travel long distances to access more advanced labs. As a result, very few of the patients at the hospital received a confirmed diagnosis and many died of the illness.

Since 2015, GHSA has helped hospitals in India, like Thirthahalli, diagnose mystery fevers by expanding its Acute Febrile Illness (AFI) program to 27 sites in 10 states. The program has gone from nearly 0% of correct diagnoses of AFI to 40% in just 12 months.

Better diagnosis of mystery fevers in India saves lives and stops outbreaks before they begin. (David Snyder/CDC Foundation)

A trained, frontline workforce works 24/7 to detect outbreaks early to save lives. #globalhealthsecurity #CDCprotectsyou
Respond rapidly and effectively to biological threats of international concern.

CDC-Supported Achievements in 17 Priority Countries

<table>
<thead>
<tr>
<th>Emergency Operation Centers (EOCs)</th>
<th>Public Health and Law Enforcement</th>
<th>Medical Countermeasures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Countries</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Total Population</td>
<td>2 billion</td>
<td>718 million</td>
</tr>
<tr>
<td>Established permanent facilities for Emergency Operations Centers (EOCs)</td>
<td>Strengthened response coordination between public health and law enforcement sectors</td>
<td>Improved logistics planning for medical supplies and personnel deployment during public health emergencies</td>
</tr>
<tr>
<td>EOCs bring together experts and stakeholders to quickly launch and manage a coordinated response to an emergency</td>
<td>Collaboration between law enforcement and public health professionals ensures that responders work under appropriate legislation and prevents sick travelers from crossing borders</td>
<td>During a public health emergency, countries need medications, vaccines, or personal protective equipment; systems are critical to moving resources around a country</td>
</tr>
</tbody>
</table>

Why It Matters:

**CDC’s Contributions in Response**

- Establish Emergency Operations Centers (EOCs) that are the backbone of an effective crisis response
- Create and strengthen rapid response teams so they can effectively address critical needs and priorities
- Ensure countries have the equipment, medications, vaccines, and technical expertise needed to fight disease

**Vietnam’s Rapid Response to Zika**

With CDC’s technical expertise and training, Vietnam has been able to rapidly respond to the Zika epidemic and stop more cases of the virus from spreading to America. CDC helped Vietnam develop a network of national EOCs that act as nerve centers for epidemic intelligence, bringing outbreak detection and response even closer to the source.

Vietnam’s national EOC was inaugurated in February 2015, and serves as a critical response resource during a crisis.

Rapid and effective response to disease threats at their source keeps Americans safe at home. #globalhealthsecurity #CDCprotectsyou
Joint External Evaluations (JEE)

What are JEEs?

JEEs are voluntary, external assessments of a country’s capacity to prevent, detect, and respond to infectious diseases and other public health threats. These objective evaluations assess a country’s strengths and weaknesses in critical public health infrastructure and assess whether countries are meeting GHSA targets. CDC experts serve on evaluation teams and coordinate with partners like the World Health Organization because strengthening these public health systems abroad helps to protect Americans from dangerous disease threats at home.

Why CDC Helps with JEEs

**Efficiency:** guides allocation of national resources and partners to effectively target resources  
**Effectiveness:** provides technical assistance to sharpen the country’s public health capabilities  
**Impact:** establishes baseline for countries to build on and ensures accountability

Tanzania Leads on Joint External Evaluation

Tanzania was the first country to complete a JEE and to use the results to develop a costed National Health Security Action Plan for fixing the gaps identified in the JEE. According to public health officials who participated in Tanzania’s mainland JEE, the evaluation was invaluable. The process not only helped them understand where GHSA programming can make a difference, but it also strengthened relationships among various government ministries in Tanzania that can enable the country, the African continent, and the world to better prevent and stop disease.
Global Health Security: Protecting America’s Future

In today’s tightly connected world, global health security is a national security issue.

CDC is America’s health shield. With a commitment to prevent and fight public health threats at home or abroad, natural or man-made, we protect American lives and taxpayer dollars. Through GHSA, we work with countries to prevent, detect, and respond to dangerous public health threats, including Ebola, SARS, yellow fever, Zika, anthrax, and many more.

DISEASE KNOWS NO BORDERS

A pathogen can travel around the globe to major cities in as little as little as 36 hours.

www.cdc.gov/globalhealth/healthprotection

Why Is It Important?

In only 36 hours, a disease can spread from an isolated, rural village to any major city in the world. A health threat anywhere is a health threat everywhere.

Ensuring that the world is safe from global pandemics is good for American businesses too. Public health emergencies can disrupt local, regional, and international markets, causing economic instability around the world. When this happens, American exports and jobs could be affected in all 50 states. Through CDC’s global health security work, the U.S. is able to safeguard our collective health and economic stability.

Why CDC?

CDC’s unmatched technical expertise and unparalleled experience—both domestically and abroad—is a vital part of global health security; CDC knows what it takes to stop outbreaks before they become pandemics. CDC’s work helps other countries prepare for and respond to outbreaks and emergencies so that they don’t reach America’s shores.

No single nation can ensure global health security, but CDC is taking the lead to work with countries and partners to prevent, detect, and respond to infectious disease threats in order to build a safer world and protect American lives, the economy, and our collective security.

CDC’s Contribution to the Global Health Security Agenda
Summary of 2016 Accomplishments in 17 Priority Countries

What is the GHSA?
The Global Health Security Agenda (GHSA) is a worldwide effort to strengthen countries’ ability to prevent and respond to public health emergencies and infectious disease threats. The Centers for Disease Control and Prevention (CDC) plays a leading role in the implementation of GHSA in 17 priority countries: Bangladesh, Burkina Faso, Cameroon, Côte d’Ivoire, Guinea, Ethiopia, India, Indonesia, Kenya, Liberia, Mali, Pakistan, Senegal, Sierra Leone, Tanzania, Uganda, and Vietnam.

Preventing avoidable epidemics, including naturally occurring, intentional, and accidental outbreaks.

**Antimicrobial Resistance**
Countries: 6
Population: 1.8 billion
Expanded surveillance for drug-resistant bacteria by strengthening lab capacity and training critical staff to collect critical data

**Zoonotic Disease**
Countries: 7
Population: 514 million
Developed or strengthened multisectoral mechanisms to limit animal-to-human spillover of zoonotic diseases

**Biosafety/Biosecurity**
Countries: 6
Population: 301 million
Inventoried dangerous pathogens and developed a plan to manage them

**Immunization**
Countries: 9
Population: 1.6 billion
Strengthened surveillance systems to inform community immunization campaigns that target under-vaccinated groups

Detecting threats, including emerging biological threats, at the earliest possible moment.

**National Lab Systems**
Countries: 13
Population: 2.1 billion
Applied new equipment and capabilities in detecting dangerous pathogens

**Surveillance**
Countries: 8
Population: 1.6 billion
Expanded surveillance systems to detect 3 or more of the world’s most dangerous diseases

**Reporting**
Countries: 10
Population: 1.7 billion
Improved timeliness and/or geographic coverage of routine public health threat reporting

**Workforce Development**
Countries: 17
Population: 2.4 billion
Established and/or maintained public health workforce training programs by providing funding, staff, and technical assistance
Responding rapidly and effectively to biological threats of international concern.

Emergency Operations Centers
Countries: 12
Population: 2.0 billion
Established permanent facilities for Emergency Operations Centers (EOCs)

Public Health and Law Enforcement
Countries: 11
Population: 718 million
Strengthened response coordination between public health and law enforcement sectors

Medical Countermeasures
Countries: 8
Population: 323 million
Improved logistics planning for medical supplies and personnel deployment during public health emergencies

Snapshot of Countries’ Successes:

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Contact us: dghpcommunication@cdc.gov

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