Advancing the Global Health Security Agenda:
CDC Achievements & Early Impact

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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)

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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:

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

- Antimicrobial Resistance
- Zoonotic Disease
- Biosafety & Biosecurity
- Immunization

Prevent avoidable outbreaks

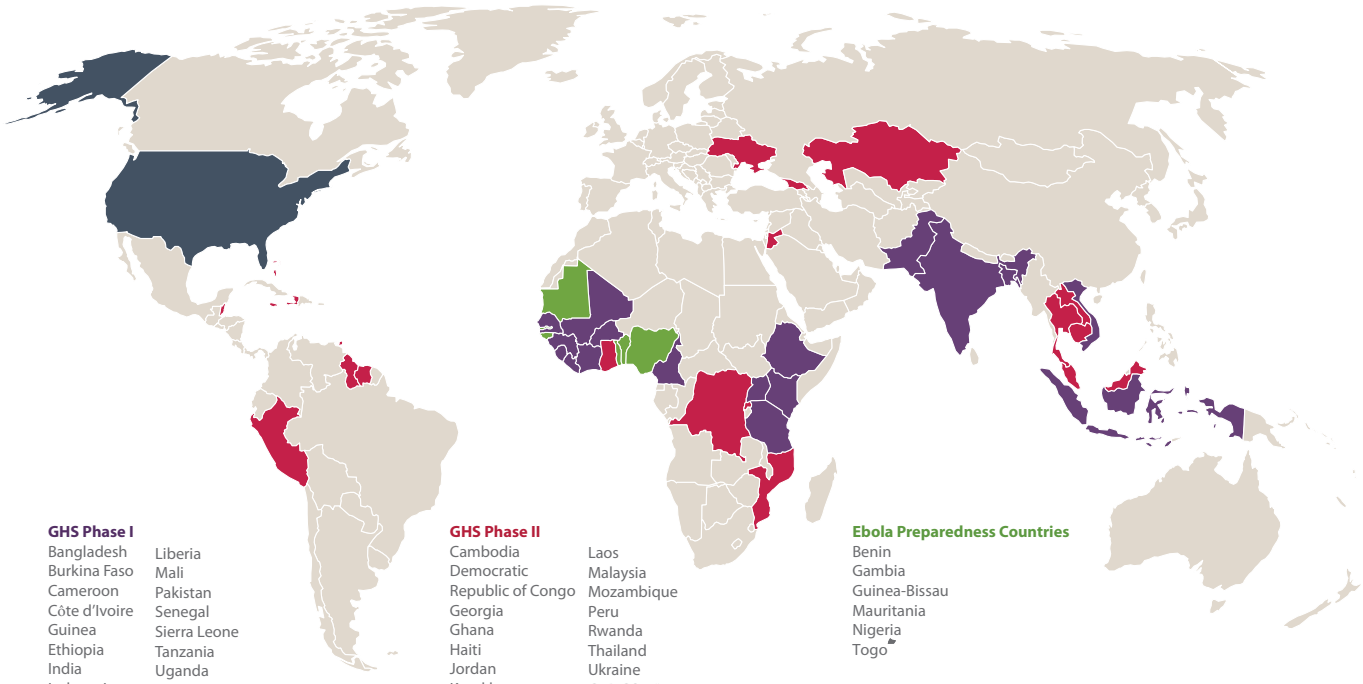
- National Laboratory System
- Real-Time Surveillance
- Reporting
- Workforce Development

Detect threats early

- Emergency Operations Centers
- Linking Public Health with Law Enforcement & Multisectoral-Rapid Response
- Medical Countermeasures & Personnel Deployment

Respond rapidly and effectively

Global Health Security Agenda (GHSA) Countries Supported by the CDC



GHS Phase I
Bangladesh
Burkina Faso
Cameroon
Côte d'Ivoire
Guinea
Ethiopia
India
Indonesia
Kenya
Liberia
Mali
Pakistan
Senegal
Sierra Leone
Tanzania
Uganda
Vietnam

GHS Phase II
Cambodia
Democratic Republic of Congo
Georgia
Ghana
Haiti
Jordan
Kazakhstan
Laos
Malaysia
Mozambique
Peru
Rwanda
Thailand
Ukraine
CARICOM*

Ebola Preparedness Countries
Benin
Gambia
Guinea-Bissau
Mauritania
Nigeria
Togo

**Caribbean Community (CARICOM) is an organization of 15 Caribbean nations and dependencies. GHS Phase II will have a regional focus.*

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

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

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)

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.

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

	National Lab Systems	Surveillance	Reporting	Workforce Development
Number of Countries	**13**	**8**	**10**	**17**
Total Population	**2.1 billion**	**1.6 billion**	**1.7 billion**	**2.4 billion**
	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

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

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.

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

	Emergency Operation Centers (EOCs)	Public Health and Law Enforcement	Medical Countermeasures
Number of Countries	**12**	**11**	**8**
Total Population	**2 billion**	**718 million**	**323 million**
	Established permanent facilities for Emergency Operations Centers (EOCs)	Strengthened response coordination between public health and law enforcement sectors	Improved logistics planning for medical supplies and personnel deployment during public health emergencies
Why It Matters:			
	EOCs bring together experts and stakeholders to quickly launch and manage a coordinated response to an emergency	Collaboration between law enforcement and public health professionals ensures that responders work under appropriate legislation and prevents sick travelers from crossing borders	During a public health emergency, countries need medications, vaccines, or personal protective equipment; systems are critical to moving resources around a country

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

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.

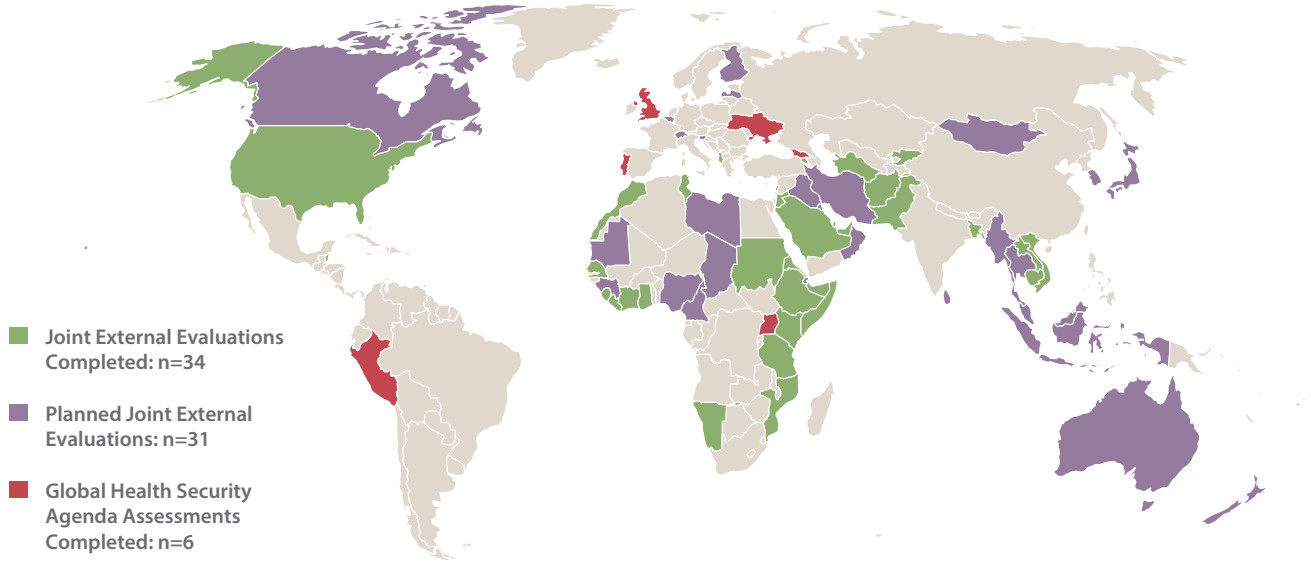
Rapid and effective response to disease threats at their source keeps Americans safe at home. #globalhealthsecurity #CDCprotectsyou

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.

Country Progress with Joint External Evaluation and Independent Global Health Security Agenda Assessments as of the end of 2016



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

Staff from the Tanzania Ministry of Health use what they learned from the JEE to quickly stop disease at its source. (David Snyder/CDC Foundation)

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.

Joint External Evaluations identify gaps in a country's public health defenses and tell us how to strengthen them. #globalhealthsecurity #CDCprotectsyou

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.

Why Is It Important?

In only 36 hours, a disease can spread from an isolated, rural village to any major city in the world[1]. 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.

[1]Jonas, Olga B., 2013 Pandemic Risk. World Bank, Washington D.C.

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, Cote 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

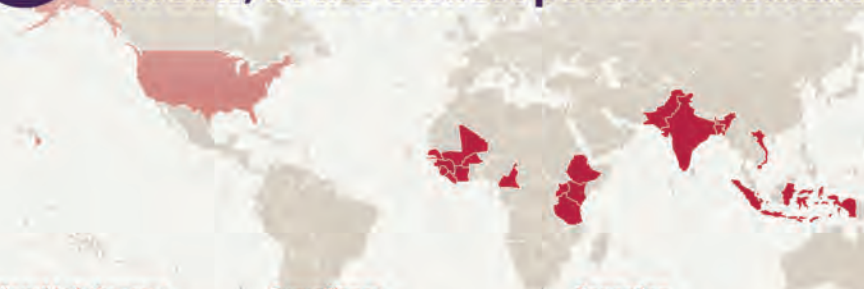
Inventoried dangerous pathogens and developed a plan to manage them

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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For more information:
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