Advancing the Global Health Security Agenda:
CDC Achievements & Impact—2017

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

https://www.cdc.gov/globalhealth/security/ghsareport/index.html

Disease Detectives in Nigeria—Pertussis
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Stopping outbreaks at the source. Protecting America's future.

CDC works 24/7 to protect America's health security 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 Global Health Security Agenda?

The Global Health Security Agenda (GHSA), launched in 2014, is a global effort to strengthen the world's ability to prevent, detect, and respond to infectious disease threats, whether they are naturally occurring, accidentally or intentionally released. The purpose of the GHSA is to accelerate progress toward achievement of the International Health Regulations (2005) and strengthen global public health capacities within 31 countries and the Caribbean. The Centers for Disease Control and Prevention (CDC) plays a leading role in the implementation of the GHSA for the United States (U.S.). As part of the broader U.S. government engagement, CDC is committed to working with these countries to strengthen their capabilities to identify, track, and stop outbreaks or other public health emergencies.

Why Does It Matter?

More than 70% of the world remains underprepared to prevent, detect, and respond to a public health emergency.[1] Through GHSA, the CDC works with countries to strengthen public health systems and contain outbreaks at the source, before they spread into regional epidemics or global pandemics. Public health threats, health emergencies, and infectious diseases do not recognize or respect borders. Effective and functional public health systems in all countries reduce the risk and opportunity for health threats to affect the U.S.

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

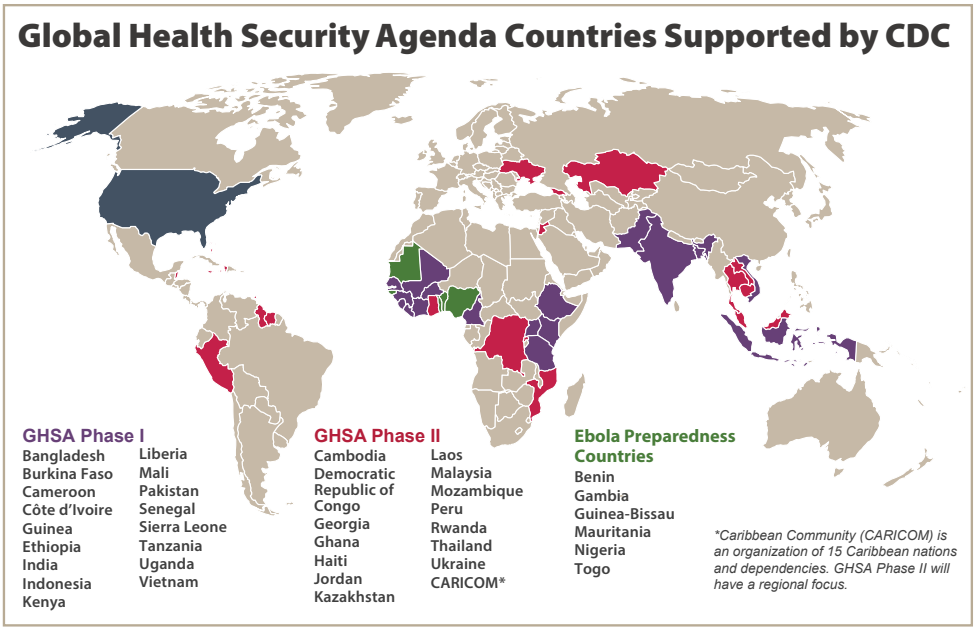
- Emergency Operations Centers
- Linking Public Health with Law Enforcement & Multisectoral Rapid Response
- Medical Countermeasures and Personnel Deployment

Respond rapidly and effectively

[1] Implementation of the International Health Regulations (2005)

Why CDC?

Beginning with smallpox eradication in 1980, CDC has worked around the world to protect the health of the American people as the world's preeminent U.S. public health agency. To effectively protect American health, CDC established itself as a leader and partner in the identification, control, elimination, and eradication of infectious diseases, recognizing that global health security is a critical component of America's national security.



CDC's unique scientific expertise, international network, and decades of domestic and international experience have proven to be essential to the success of the GHSA. At CDC, we are focused on bringing solutions to global health challenges. We use the best available science to develop novel approaches for public health action in domestic and international settings. We apply lessons learned from international programs such as the President's Emergency Plan for AIDS Relief (PEPFAR), the President's Malaria Initiative, global immunization, and previous emergency responses to develop evidence-based approaches that protect Americans from global infectious disease threats.

CDC efforts play a critical role in the identification and containment of the world's most dangerous emerging global health threats—including deadly diseases like SARS, MERS, Ebola, and Zika. CDC protects Americans by actively tracking and monitoring potential threats around the world, developing new technologies to detect dangerous diseases, and remaining ever ready to respond when disaster strikes.

Where Is CDC Working?

Under the GHSA, the U.S. is committed to partner with:

- **17** Phase I countries that receive financial support and technical assistance from CDC
- **14** Phase II countries that receive only technical assistance from CDC

How Does CDC Do It?

CDC works bilaterally or directly with national governments, non-governmental organizations, academia, multilateral organizations, the private sector, and other stakeholders to build core public health infrastructure that may be used to effectively identify and combat infectious disease outbreaks and respond to epidemics. CDC leadership and expertise have been instrumental in focusing a multisectoral and multinational coalition across 11 technical areas known as GHSA Action Packages that build core public health capacities in partner countries. CDC's focus on GHSA Action Packages such as disease surveillance, laboratory systems, workforce development, and emergency management have already resulted in measurable progress.

What Is CDC's Impact?

When it comes to protecting the public's health, the world must be prepared for both the known and unknown threats. CDC stands ready to prevent, detect, and respond to the next disease outbreak by taking the lead in working with countries and partners to build a world safer from disease threats. This year alone, CDC's global health protection work helped contain the spread of Ebola in the Democratic Republic of the Congo, meningitis in Liberia, Marburg virus in Uganda, and other threats too numerous to list. CDC's global work protects Americans both at home and abroad and ensures that health threats do not reach U.S. borders.

Prevent avoidable epidemics, including naturally occurring, accidental, or intentional outbreaks.

Action Package Results—CDC-Supported Achievements in 17 Priority Countries

Statistics	Antimicrobial Resistance	Zoonotic Disease	Biosafety/ Biosecurity	Immunization
Number of Countries	6	6	4	13
Total Population	1.65 billion	1.86 billion	1.32 billion	2.0 billion
Result	Countries with designated laboratory facilities that conducted antimicrobial susceptibility tests (AST) and reported to the designated national body in the last 6 months	Countries where surveillance data are shared between human and relevant animal health sectors for all prioritized zoonotic diseases	Countries where all national laboratories have physical security controls and electronic inventories for all dangerous pathogens and toxins	Countries that have improved community immunization coverage based on surveillance of disease burden
Why it Matters	Antimicrobial-resistant (AMR) organisms have adapted to widespread use of antibiotics, decreasing our ability to treat diseases. Identifying AMR organisms allows us to react quickly when they spread	An estimated 6 out of 10 infectious diseases are zoonotic and spread between animals and humans. We quickly need to know about zoonotic disease outbreaks in animals to prepare for and prevent possible spread into human populations	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 contribute to antimicrobial resistance
- Reduce factors that contribute to the spread of zoonotic diseases in humans
- Promote safe and secure ways to manage biological materials to keep laboratory workers safe and reduce the risk of theft, loss, or mishandling of dangerous pathogens that could harm the public
- Strengthen the prevention, detection, and response to zoonotic diseases through One Health Zoonotic Disease Prioritization workshops and the development of national action plans to combat the exchange of disease between animals and humans
- Establish and strengthen vaccination programs to protect people from highly contagious yet preventable diseases and conduct vaccination outbreak response measures

What Remains to Be Done?

Zoonotic disease collaboration has seen significant progress. All 17 GHSA Phase I countries have engaged in a multisectoral, One Health collaboration using CDC's One Health Zoonotic Disease Prioritization process. However, the capacity to share data between human, animal, and/or environmental health sectors remains challenging in 11 of 17 GHSA Phase I countries. These challenges can leave countries vulnerable, as relevant sectors encounter barriers to acting collaboratively to prevent, detect, or respond to zoonotic diseases (e.g., rabies, influenza viruses, hemorrhagic fevers, and anthrax). To address these gaps, CDC is working with countries to strengthen critical public health infrastructure by training physicians, veterinarians, and others to better identify and detect zoonotic diseases and share information for faster action.

For 60+ years, CDC has been a global leader protecting the health of the American people by eliminating and eradicating disease around the world. #globalhealthsecurity

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

Action Package Results—CDC-Supported Achievements in 17 Priority Countries

Statistics	National Lab Systems	Real Time Surveillance	Reporting	Workforce Development
Number of Countries	9	10	10	17
Total Population	1.73 billion	1.86 billion	1.71 billion	2.44 billion
Result	Countries that have testing capacity for all country-prioritized pathogens using core tests	Countries that have a national database linking suspect case reports and laboratory data from all subnational jurisdictions	National database(s) improvements to include laboratory data for priority notifiable diseases or syndromes with case-based reporting	Establish or expand the public health workforce training of field-based epidemiologists (disease detectives)
Why it Matters	Confirming diagnosis with labs allows health workers to respond rapidly with the most effective treatment and prevention methods	Effective disease surveillance enables countries to quickly detect outbreaks and continuously respond to potential 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 people who can quickly investigate potential outbreaks, identify the issue, and take swift action

CDC's Contributions in Detection

- Establish monitoring systems that can predict and identify infectious disease threats at various levels of the health system, including community, district, and national levels, as well as global monitoring through CDC's Global Disease Detection Operations Center
- Strengthen countries' ability to quickly and accurately collect, analyze, and use public health information
- Train disease detectives, laboratory scientists, and veterinarians who are equipped to identify, track, and contain outbreaks in humans and animals before they spread

What Remains to Be Done?

Although great progress has been made in disease surveillance, 7 of 17 GHSA Phase I countries still do not have a database that links suspect cases of illness with laboratory confirmation, and 8 of 17 GHSA Phase I countries do not have a web-based database for reporting cases of epidemic-prone diseases. This leaves countries vulnerable, as they cannot accurately monitor the presence and spread of disease, nor can they quickly share outbreak information via electronic systems. To address these gaps, CDC is working with countries to strengthen disease detection through web-based databases that are linked to laboratory results, enabling more timely and coordinated outbreak identification and response.

CDC works to establish national monitoring systems to ensure global disease detection at the earliest moment. #globalhealthsecurity

Respond rapidly and effectively to biological threats of international concern.

Action Package Results—CDC-Supported Achievements in 17 Priority Countries

Statistics	Emergency Operation Centers (EOCs)	Public Health and Law Enforcement	Medical Countermeasures
Number of Countries	**15**	**8**	**7**
Total Population	**2.2 billion**	**469 million**	**2.1 billion**
Result	Countries training emergency management specialists and experts to support a well-functioning EOC	Countries using law as a tool to build public health capacities and strengthen GHSA/IHR implementation	Countries improving planning for logistics to deploy staff, medicines, and or supplies during a public health emergency
Why it Matters	EOCs bring together experts and stakeholders to efficiently and effectively coordinate response to an emergency or public health threat	Law can be used as an effective tool to build public health capacities. Understanding the legal landscape and updating public health laws help people work effectively together in a common language	During a public health emergency, countries need medications, vaccines, or personal protective equipment. Putting systems in place before an emergency strikes is critical to preventing delays in patient care

CDC's Contributions in Response

- Establish public health emergency operations centers (EOCs) to serve as a centralized location in partner countries to efficiently and effectively respond to a crisis
- Develop technical expertise and capacity needed for countries to lead their own effective responses to public health threats
- Establish and strengthen CDC rapid response teams that can mobilize quickly to address the critical and diverse needs and priorities that arise from infectious disease outbreaks

What Remains to Be Done?

Successful capacity building efforts are ongoing for public health emergency management programs housed within countries' new EOCs. Through 2017, 15 of 17 GHSA Phase 1 countries have participated in CDC's public health emergency management training efforts. Without trained personnel and the necessary plans, procedures, protocols, and policies to enable well-informed and timely decision-making during an emergency, EOCs cannot respond and mitigate threats to global health security. Additionally, only 3 of 17 GHSA Phase 1 countries have adequate communications equipment in their national emergency operations centers. The lack of adequate communications equipment limits real-time coordination and public health action between local public health officials and national-level decision-makers in country, while hampering coordination with neighboring countries and the international public health community. CDC is working with countries to develop EOC infrastructure and equipment, implement sustainable models for EOC operations, and assist with training current and new EOC staff to activate and manage emergency responses.

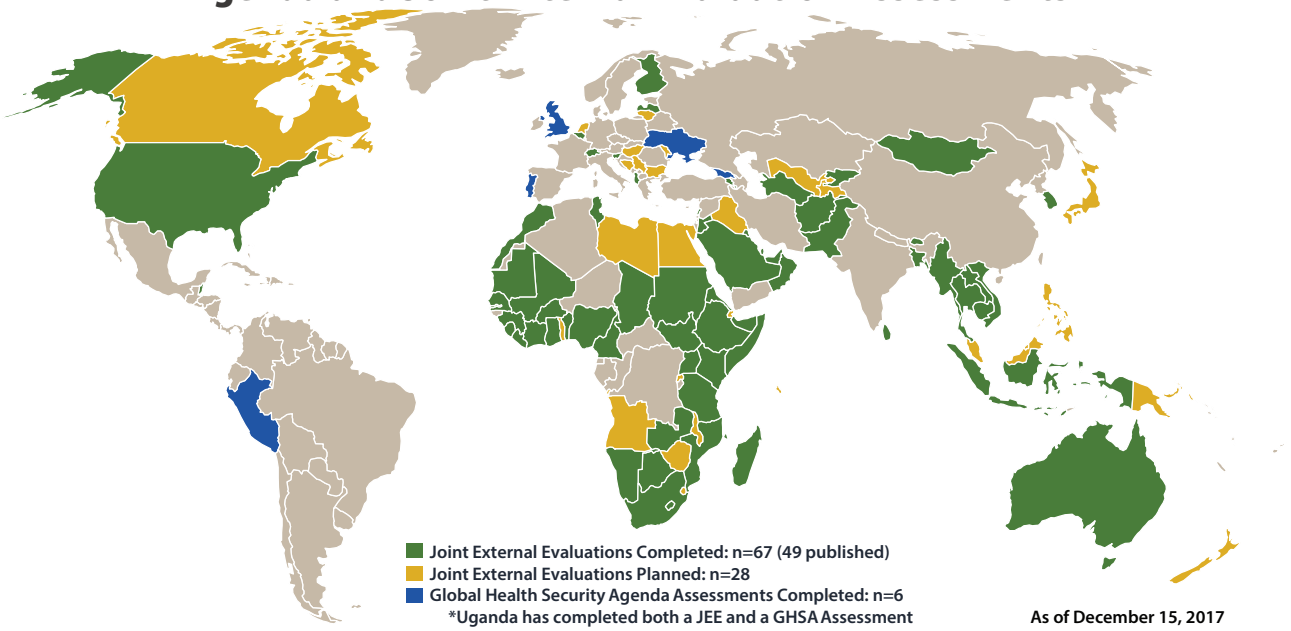
Emergency Operation Centers are the backbone and command centers of rapid and effective response to public health threats of international concern. #globalhealthsecurity

Joint External Evaluations (JEE)

What are JEEs?

The World Health Organization's (WHO) Joint External Evaluations (JEEs) are voluntary, external assessments of a country's capacity to prevent, detect, and respond to infectious diseases and other public health threats. These were first piloted as GHSA Assessments in 2014. The JEE process brings together experts from around the world to help a country assess its strengths and weaknesses in health security and identify priority actions to improve its health capacity. Following a JEE, countries develop National Action Plans for Health Security (NAPHS) to identify the resources and actions needed to address the weaknesses. NAPHS outline a country's own priorities for improving health systems over the next five years to reduce the likelihood of disease outbreaks that could spread within their borders and to other countries. Together, these systems protect Americans from dangerous disease threats before they reach U.S. shores.

Country Progress with Independent Global Health Security Agenda and Joint External Evaluation Assessments



How does CDC Support JEEs?

CDC has played a critical role in ensuring the success of the JEE process by:

Supporting global implementation. CDC worked with WHO to develop materials critical to implementing the JEE, including (1) training materials to prepare JEE evaluators and JEE team leads, (2) guidance for countries preparing for the JEE and for evaluators to successfully perform the assessments, and (3) tools that allow WHO to implement and oversee JEE implementation worldwide. These materials are used by WHO worldwide to ensure standardized assessments.

Leveraging CDC's world-class expertise. CDC supports JEEs through on-the-ground assistance from in-country staff and participation of CDC experts on JEE teams. CDC experts have participated as members of JEE teams in more than 75% of the 67 JEEs completed by the end of 2017.

Building a better external evaluation process. CDC has improved the external evaluation process by contributing to the development of the original JEE and its training tools, as well as by incorporating lessons learned into the second version of the JEE tool. JEE 2.0 will be used for JEEs in 2018.

Final JEE reports can be found at https://extranet.who.int/spp/.

The WHO Joint External Evaluation tool helps countries assess their health security strengths and weaknesses and directs resources toward the most urgent needs, which helps protect the country and the rest of the world from infectious diseases. #globalhealthsecurity

GHSA Success Stories

CDC and its partners have made significant progress in strengthening health security capacity in the first years of implementation of the Global Health Security Agenda. In the 17 GHSA priority countries, CDC and its partners have supported activities that translate into faster containment of disease threats.

LIBERIA
Containing a deadly outbreak of meningococcal disease to help prevent its spread

In April 2017, Liberia reported 18 cases and 10 deaths from an unidentified illness. Within 24 hours, the country mobilized 14 U.S.-trained Liberian disease detectives, activated its new Public Health EOC, and deployed a national Rapid Response Team. In-country laboratory testing ruled out Ebola within 24 hours, and within days, U.S. laboratories were able to confirm meningococcal disease as the cause of the outbreak. Fast and coordinated response helped limit the outbreak to 31 cases and 13 deaths.

BURKINA FASO
Improving the country's laboratory testing capacity through hands-on training by CDC experts

In May 2017, Burkina Faso's National Arbovirus Viral Hemorrhagic Fever Reference Laboratory achieved capacity to test for Lassa fever, Crimean-Congo Hemorrhagic Fever, Rift Valley fever, dengue, chikungunya, and Zika viruses. CDC provided support by providing hands-on, practical training in molecular biology and serology testing, virtual technical consultations, and the provision of reagents and equipment. This broader laboratory testing capacity enables more accurate identification and faster containment of infectious disease threats.

UGANDA
Preventing outbreaks of Marburg hemorrhagic fever from becoming regional epidemics

In November 2017, Uganda staged a rapid and effective response when three deadly cases of Marburg hemorrhagic fever, caused by the Marburg virus were reported. CDC Uganda assisted with tracing, monitoring, and testing of 297 people who had been in contact with sick patients. When one suspected case traveled across the border into Kenya, CDC Kenya supported emergency preparedness activities to prevent a potential outbreak. This outbreak further demonstrated the need for cross-border collaboration and communication to ensure rapid and effective response to disease threats.

CAMEROON
Conducting a full-scale exercise to test emergency response systems

In September 2017, the government of Cameroon staged the first large-scale, international public health response exercise in Africa with support from CDC experts, the U.S. Defense Threat Reduction Agency, the World Health Organization, and other partners. The week-long exercise focused on a simulated outbreak of cholera and challenged Cameroon's outbreak response capabilities, testing the country's improved laboratories, ability to share information in real time, new Public Health EOC, and other systems.

VIETNAM
Enhancing rapid, local detection of infectious disease outbreaks through event-based surveillance

CDC supported an event-based surveillance (EBS) pilot project from 2016–2017, actively engaging local community members, leaders, and health care staff in the detection and reporting of outbreaks. By December 2017, approximately 9,000 people had been trained; they reported more than 5,900 early warning signals of potential outbreaks. Over 420 disease outbreaks were confirmed, including foodborne illnesses; mumps; diphtheria; chickenpox; and hand, foot, and mouth disease, with more than 400 of the confirmed outbreaks responded to in under 48 hours.

BANGLADESH
Strengthening the country's medical workforce through biosafety and biosecurity trainings

CDC and local implementing partners conducted biosafety and biosecurity (BSBS) workshops in more than 15 laboratories for 95 people. These workshops provided essential, hands-on training in workplace safety practices and policies, use of preventive measures, and safe use and maintenance of equipment. After BSBS training was completed, the BSBS resource persons implemented these practices and became lead trainers in their respective institutions.

INDIA
Developing capacity to address the burden of multi-drug resistant tuberculosis

In India, 75% of multi-drug resistant tuberculosis (MDR-TB) cases remain undiagnosed and untreated. CDC helped India implement a successful public-private partnership model that has increased capacity to diagnose, treat, and care for MDR-TB patients through virtual health care communities and telementoring. From July 2016–December 2017, more than 2,000 MDR-TB patients accessed health counselors, with an 83% retention and adherence rate among patients at risk of stopping treatment.

PAKISTAN
Detecting and controlling vaccine-preventable diseases to save lives

Outbreaks of deadly but vaccine-preventable diseases—like measles, diphtheria, and pertussis—continue to threaten Pakistan's most vulnerable populations, including children. Disease detectives trained through Pakistan's CDC-supported Field Epidemiology and Laboratory Training Program (FELTP) conducted field investigations and responses to 194 outbreaks in the country, 94 of which were related to vaccine-preventable diseases. In response to these investigations, health departments vaccinated more than 47,000 children.

TANZANIA
Strengthening public health capacities at ports of entry for detection, notification, evaluation, and referral of ill travelers

CDC worked directly with the Tanzania Ministry of Health to strengthen public health capacity at three priority airports and two seaports by developing public health emergency response plans and standard operating procedures for the detection, evaluation, and referral of ill travelers. CDC trainings were conducted at all five ports of entry, and an exercise was conducted to test responder capacity to identify and respond to a public health event. With strong engagement from partners, implementation occurred in less than one year.

KENYA
Developing capacity to further prevent and control antimicrobial resistance (AMR) in healthcare and community settings

Kenya recognized antimicrobial resistance (AMR) and lapses in infection prevention and control practices (IPC) as major public health problems. CDC helped the Kenya Ministry of Health (MoH) develop a comprehensive national AMR policy, establish an AMR surveillance system with the capacity to identify and report AMR, and build IPC capacity at the MoH and healthcare facility levels. The results of this work will be used by the MoH to further develop national-level policies to improve the prevention of AMR and use of antibiotics in Kenya.

ETHIOPIA
Building laboratory capacity for rabies, anthrax, and brucellosis detection and control

Ethiopia is particularly vulnerable to the effects of zoonotic diseases, especially anthrax, brucellosis, and rabies. CDC provided assistance to build national and regional laboratory capacity to test both human and animal samples and support surveillance systems improvements. CDC also worked with the host government to increase the number of sites for pilot brucellosis prevention and control activities; in addition, Ethiopia has introduced an animal vaccine in high-risk areas.

CDC Shows the Economic Impact of GHSA

TOP SECTORS	WHO WORKS IN THIS INDUSTRY
Manufactured Goods	Machinists, assembly line workers, welders, quality control inspectors, mechanical engineers, tool and die makers, machine tool programmers
Agriculture, Forestry, Fishing & Hunting	Laborers, managers, truck drivers, equipment operators, cattle ranchers, loggers, commercial fishers
Mining, Quarrying, and Oil/Gas Extraction	Extraction workers, geological engineers, equipment operators, truck drivers, structural designers, drill operators

Today's world of increasing interconnectivity and mobility accelerates the shared global risk to our health. An infectious disease can be transported from an isolated village to major cities on all continents in less than 36 hours.

Public health emergencies can have devastating effects on local, regional, and global economies. They disrupt markets, destabilize political structures, threaten business operations, and endanger workers' health. Nations can be hit hard by the cost of controlling diseases: governments and the private sector often have to deal with the burden of decreased travel and tourism, lost business continuity, surges in health care costs, and disrupted trade with international markets. Economists estimate that the 2002–2003 SARS outbreak cost the global economy $40 billion.[2] Likewise, according to a recent estimate by the U.S. National Academies of Science, Engineering, and Medicine (NASEM), pandemics could cost the global economy over **$6 trillion** (USD) in the 21st century.[3]

In addition to tragic loss of life, the next global infectious disease outbreak could harm the U.S. export economy and threaten U.S. jobs—even if the disease never reaches American shores.

As of 2015:

- The U.S. had exports valued at over $277 million to the 17 Phase I countries in sectors including agriculture, manufacturing, and natural resource extraction[4]
- These exports to the 17 Phase I countries supported more than 345,000 U.S. jobs[5]

The U.S. economy is better protected when public health threats are quickly identified and contained. CDC's global health security efforts to stop outbreaks where they start protects the health of people worldwide. This, in turn, protects demand for U.S. exports and the jobs they support. Strategic investments in capacity building and preparedness for health security purposes must remain a national priority of governments and a key commitment for multilateral agencies, development banks, non-governmental organizations, and private sector stakeholders worldwide.[6, 7]

[2] Institute of Medicine (US) Forum on Microbial Threats; Knobler S, Mahmoud A, Lemon S, et al., editors. Learning from SARS: Preparing for the Next Disease Outbreak: Workshop Summary. Washington (DC): National Academies Press (US); 2004. The Impact of the SARS Epidemic. Available from: https://www.ncbi.nlm.nih.gov/books/NBK92486/.

[3] Gostin, L.O., Mundaca-Shah, C.C., & Kelley, P.W. (2016). Neglected Dimensions of Global Security: The Global Health Risk Framework Commission. *JAMA*, 315(14), 1451–1452. https://scholarship.law.georgetown.edu/facpub/1774

[4] US Department of Commerce, International Trade Administration (ITA). Jobs supported by export destination. http://www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_005513.xlsx

[5] US Department of Commerce, International Trade Administration (ITA). Trade Policy Information System (TPIS database http://tpis1.trade.gov/cgi-bin/wtpis/prod/tpis.cgi

[6] Cassell, C.H., Bambery, Z., Roy, K., Meltzer, M.I., Ahmed, Z., Payne, R.L., & Bunnell, R.E. (2017). Relevance of Global Health Security to the US Export Economy. *Health Security*. 15(6);563–586. doi: 10.1089/hs.2017.0051

[7] Bambery, Z. Cassell, C.H, Bunnell, R.E., Roy, K., Ahmed, Z., Payne, R.L., Meltzer, M.I.(2018). Impact of a Hypothetical Infectious Disease Outbreak on US Exports and Export-Based Jobs. *Health Security*. 16(1):1–7. doi: 10.1089/hs.2017.0052

Partnering to Protect America's Future

There is perhaps no greater investment toward protecting our physical, social, and economic wellbeing than global health security.

No single country, sector, or organization can achieve global health security alone. Non-governmental organizations, academia, state and local governments, faith-based organizations, and the private sector all have a stake in the success of this endeavor. Their investments, workforce, and bottom line are impacted by the capacity of public health systems around the globe to contain outbreaks. Multi-sectoral collaboration and public-private partnerships are critical to ensuring the world is ready to prevent, detect, and respond to the next public health emergency.

A strong, multi-sectoral commitment to global health is vital to saving lives, spending dollars wisely, and protecting U.S. business interests. But partnership opportunities need not be limited to financial support; there are many opportunities for engagement. Now is the time for each entity to look at what it can offer the global community. Whether it be technical experts who help guide policy and grow capacity; partner organizations who can offer support, supplies, or resources; or community members who can communicate important health information and help report outbreaks early, opportunities for contribution are endless and necessary.

Every sector can play an active, strategic role in enhancing preparedness and response efforts here in the United States and abroad. There is strength in leveraging our complementary skills and resources. We can achieve more together than we can alone.

Examples of GHSA activities partners have engaged in with CDC:

- Building temporary and permanent emergency operations centers in Sierra Leone, Liberia, and Guinea during 2014 Ebola outbreak
- Providing direct support to frontline response efforts
- Advocating for open trade and humanitarian corridors
- Training laboratory scientists and technologists across 17 priority countries
- Developing partnerships that were instrumental in promoting both domestic and international preparedness during the Zika response
- Collaborating with public health partners around the world to align communication strategies before and during public health emergencies
- Using technical exchanges and twinning partnerships as a unique response and recovery strategy
- Mobilizing private industry engagement and health system strengthening
- Developing sustainable, national infection prevention and control policies and programs
- Solving global health challenges through new technologies, medical countermeasures, and innovative approaches
- Raising awareness about lifesaving work that protects U.S. national security and economic interests
- Improving global supply chains and developing innovative approaches for delivering and implementing products and services
- Developing evidence-based guidelines and using health data to protect workers from health, occupational, and environmental hazards
- Providing expertise in areas such as construction, logistics, distribution services, vehicles, and delivery of fuel and medical equipment to affected areas; also routing ambulances to pick up individuals for care from remote areas.

Strong, multi-sector partnerships ensure the world is ready to prevent, detect, and respond to the next public health emergency. #globalhealthsecurity

CDC's Contribution to the Global Health Security Agenda

Summary of 2017 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, detect, 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: 1.65 billion

Designated laboratory facilities that conducted antimicrobial susceptibility tests (AST) and reported to the designated national body in the last 6 months

Zoonotic Disease

Countries: 6
Population: 1.86 billion

Developed or strengthened surveillance data are shared between human and relevant animal health sectors for all prioritized zoonotic diseases

Biosafety/Biosecurity

Countries: 4
Population: 1.32 billion

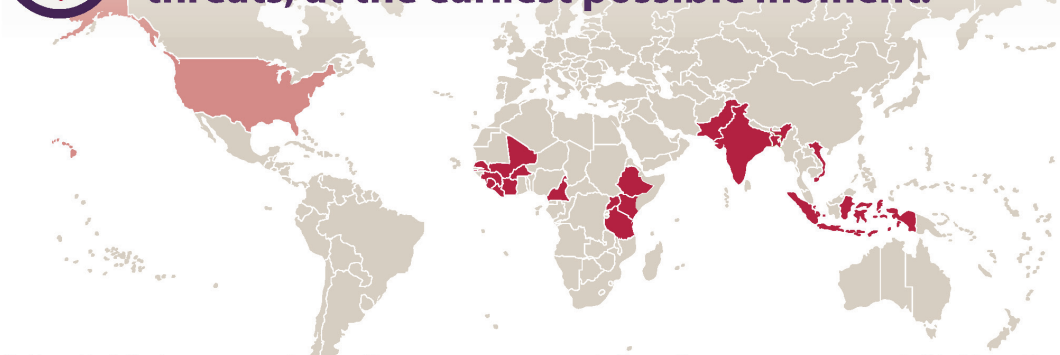
Securing national laboratories through physical security controls and electronic inventories for all dangerous pathogens and toxins

Immunization

Countries: 13
Population: 2.0 billion

Strengthened and improved community immunization coverage based on surveillance of disease burden

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



National Lab Systems

Countries: 9
Population: 1.73 billion

Increasing laboratory testing capacity for all country-prioritized pathogens using core tests

Surveillance

Countries: 10
Population: 1.86 billion

Expanded national surveillance systems linking suspect case reports and laboratory data from all subnational jurisdictions

Reporting

Countries: 10
Population: 1.71 billion

Improving national database(s) to include laboratory data for priority notifiable diseases or syndromes with case-based reporting

Workforce Development

Countries: 17
Population: 2.44 billion

Established or expanded the public health workforce-training of field-based epidemiologists (disease detectives)

Responding rapidly and effectively to biological threats of international concern.

Emergency Operations Centers

Countries: 15
Population: 2.2 billion

Facilitated trainings for emergency management specialists and experts to support a well-functioning EOC

Public Health and Law Enforcement

Countries: 8
Population: 469 million

Countries using law as a tool to build public health capacities and strengthen GHSA/IHR implementation

Medical Countermeasures

Countries: 7
Population: 2.1 billion

Improved planning for logistics to deploy staff, medicines, and or supplies during a public health emergency

Snapshot of Countries' Successes:

Burkina Faso Improving Country's Laboratory Testing Capacity

In May 2017, Burkina Faso's National Arbovirus/Viral Hemorrhagic Fever Reference Laboratory achieved capacity to test for Lassa fever, Crimean-Congo Hemorrhagic Fever, Rift Valley fever, dengue, chikungunya, and Zika viruses. CDC provided support through hands-on, practical training in molecular biology and serology testing, virtual technical consultations, and the provision of reagents and equipment. This broader laboratory testing capacity enables more accurate identification and faster containment of infectious disease threats.

CDC National Center for Emerging and Zoonotic Infectious Diseases–Viral Special Pathogens Branch

Cameroon Conducts Full Scale Test of Country's Emergency Response System

In September 2017, the Government of Cameroon staged the first large-scale, international public health response exercise in Africa with support from CDC experts, the U.S. Defense Threat Reduction Agency, the World Health Organization, and other partners. The week-long exercise focused on a simulated outbreak of cholera and challenged Cameroon's outbreak response capabilities, testing the country's improved laboratories, ability to share information in real time, new Public Health EOC and other systems.

CDC Office of Public Health Preparedness and Response–Division of Emergency Operations

Vietnam Enhances Disease Detection Efforts at Local Level

CDC supported an event-based surveillance (EBS) pilot project from 2016–2017, actively engaging local community members, leaders, and health care staff in the detection and reporting of unusual health events and outbreaks. By December 2017, approximately 9,000 people had been trained, resulting in more than 5,900 early warning signals of potential outbreaks reported. Over 420 disease outbreaks were confirmed, including foodborne illnesses, mumps, diphtheria, chickenpox, and hand, foot, and mouth disease, with more than 400 of the confirmed outbreaks responded to in under 48 hours.

CDC Center for Global Health—Global Tuberculosis (TB) Branch

For more information:
www.cdc.gov/globalhealth/healthprotection
Contact us: dghpcommunication@cdc.gov

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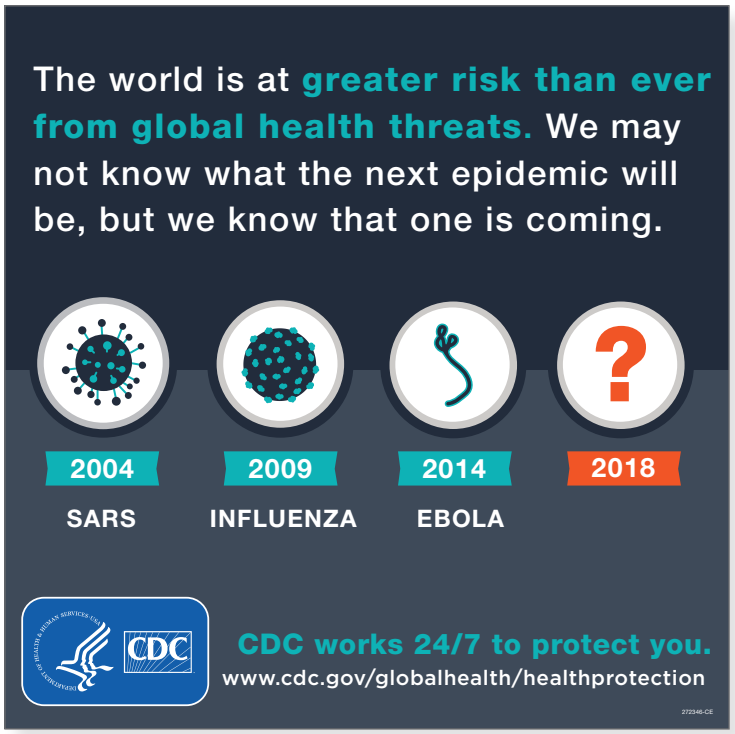
CS293492-A Nov 2, 2018

Summary and Next Steps

We cannot predict exactly where or when the next epidemic will begin, or what it will be. But we know one is coming. This is why even in the absence of a current crisis, global health security efforts must continue.



Due to the nature of infectious diseases, we will all remain vulnerable until every country in the world can rapidly identify and contain public health threats. Even a single gap in a remote area leaves everyone at risk. CDC closes the gaps by working across sectors to build core public health capacities in surveillance, laboratories, workforce development, and emergency management. Strengthening these public health capacities results in systems that can—and do—stop outbreaks from becoming world-endangering epidemics that threaten America.

The U.S. is at a critical point in the growth and sustainability of global health security. Prioritizing a sustained, focused commitment to global health security is vital to saving lives, using resources wisely, and minimizing political and economic instability around the world. The U.S. government's commitment to global health security remains steadfast. To protect America's health and wellbeing, we must continue to build upon the gains we have made. Global health security is national and economic security for America.

CDC, working domestically and globally to protect Americans, stands ready to support global health security and continues to work toward a world safe and secure from emerging and re-emerging health threats. Diseases won't stop, and neither can we.

Photo Credit: Kayla Laserson, CDC India, FETP vaccination event

At the May 2018 World Health Assembly, U.S. Secretary of Health and Human Services Alex Azar emphasized U.S. support for GHSA. "After the 2014 Ebola outbreak, countries from around the world came together to ramp up the Global Health Security Agenda, to galvanize action toward meeting International Health Regulations commitments. The administration strongly supports the extension of the Global Health Security Agenda, and encourages other nations to support this initiative."