The U.S. Government and Global Health Security

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Key Facts

- Attention to global health security – that is, efforts to help prepare for and address pandemic and epidemic diseases – has grown significantly over the past few decades, driven by the ongoing threat posed by emerging infectious diseases (EIDs), including HIV, SARS, H1N1, Ebola, and Zika.

- While the U.S. government (U.S.) has supported global health security work for more than two decades, its involvement has expanded over time, and global health security is now a defined component of the U.S. global health response. The U.S. has also played a key role in development of the “Global Health Security Agenda (GHSA),” an international partnership launched in 2014.

- U.S. funding for its primary global health security programs – activities primarily carried out by the U.S. Agency for International Development (USAID), Centers for Disease Control and Prevention (CDC), and Department of Defense (DoD) – has remained relatively flat from FY 2006 ($390 million) through FY 2017 ($402 million), with episodic funding spikes through supplemental funding mechanisms reflecting specific outbreak events, including Ebola in FY 2015 ($1 billion) and Zika in FY 2016 ($145.5 million). The Administration has proposed reduced global health security funding for FY 2018 ($353 million).

- Through these programs, the U.S. has helped other countries to make measurable improvements in capabilities to detect and respond to emerging disease events, but more work is needed to achieve stated U.S. objectives. In addition, while U.S. efforts were able to expand in recent years due largely to emergency Ebola and Zika funding, much of this funding is set to end in FY 2019, leaving the future of an expanded U.S. response uncertain.

Global Situation

After a period of optimism during the 1960s and 1970s about humankind’s ability to conquer infectious diseases, global concern about EIDs and their threat to global health security has grown. The emergence of the HIV epidemic in 1981 marked an important turning point in global consciousness about vulnerabilities to emerging diseases. Since then, multiple other new human infectious diseases have been identified (e.g. SARS,

Global Health Security: Activities supporting epidemic and pandemic preparedness and capabilities at the country and global levels in order to minimize vulnerability to acute public health events that can endanger the health of populations across geographical regions and international boundaries.
MERS); others have “re-emerged,” causing greater numbers of cases than before and/or affecting different populations and regions (e.g., dengue fever, or Ebola); and still others have developed resistance to available treatments (e.g., multi-drug resistant tuberculosis) or been newly linked to adverse health outcomes (e.g., Zika). See Table 1. Emergence and spread are driven by a number of factors, including population growth; greater international travel and trade; changes in animal handling, agricultural, and land use practices that can lead to more contact between people and animals (the source of many new human diseases); and poor public health infrastructure in many parts of the world.

<table>
<thead>
<tr>
<th>Emerging Disease</th>
<th>Year First Identified</th>
<th>Description</th>
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<tbody>
<tr>
<td>Ebola Virus Disease (Ebola)</td>
<td>1976</td>
<td>West Africa epidemic 2014-15 caused 28,616 cases and 11,310 deaths</td>
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<tr>
<td>H5N1 Influenza (“bird flu”)</td>
<td>1997</td>
<td>850 cases and 449 deaths between 2003-2016</td>
</tr>
<tr>
<td>Severe Acute Respiratory Syndrome (SARS)</td>
<td>2003</td>
<td>8,096 cases and 774 deaths worldwide</td>
</tr>
<tr>
<td>H1N1 (2009) Influenza (“swine flu”)</td>
<td>2009</td>
<td>More than 284,000 deaths worldwide</td>
</tr>
<tr>
<td>Middle East Respiratory Syndrome (MERS)</td>
<td>2012</td>
<td>2,090 cases in 27 countries, and 730 deaths</td>
</tr>
<tr>
<td>H7N9 Influenza (“bird flu”)</td>
<td>2013</td>
<td>1589 cases and 616 deaths in China</td>
</tr>
<tr>
<td>Zika Congenital Syndrome</td>
<td>2015</td>
<td>235 infants born in U.S./territories with Zika-linked birth defects</td>
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While not every newly identified infectious disease has major public health implications, some result in significant epidemics or global pandemics. Such outbreaks can lead to significant economic costs and interruptions in trade and travel. For example, SARS created an estimated $30 billion in economic losses (over $3 million per case) in 2003, primarily from reduced commerce, travel and trade. Zika is expected to cost six U.S. states an estimated $0.5 to $2 billion. Looking ahead, it is estimated that an influenza pandemic similar in nature to the 1918 influenza pandemic could kill 100 million people worldwide and cost 5% of global GDP.

In 2005, because of growing concerns about emerging diseases, member states of the World Health Organization (WHO) agreed to revise the International Health Regulations (IHR), a legally-binding instrument requiring countries to develop a minimum level of capacity to “detect, assess, notify and report” potential outbreaks and other public health emergencies. Most countries have yet to do so though; by 2014, just 64 of the 196 WHO member states (33%) self-reported as having met minimum IHR capacity benchmarks. Further, the global health security capabilities of WHO itself were called into question following its poor response to the Ebola outbreak in West Africa in 2014. More recently, the Sustainable Development Goals (SDGs), adopted by the U.N. in 2015, include specific reference to the importance of global health security as part of SDG 3 (“ensure healthy lives and promote well-being for all at all ages”) as follows: “strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.”

**U.S. Government Efforts**

For more than two decades, the U.S. has actively engaged in efforts to address global health security. U.S. policy milestones include:
The U.S. Government and Global Health Security

• key policy documents, such as a 1996 Presidential Directive and subsequent U.S. strategies on health security (released in 2010 and updated in 2015) and antibiotic-resistant bacteria (released in 2014);\(^{13}\)
• active U.S. engagement in and support for the 2005 IHR revision;\(^{14}\)
• a U.S. Memorandum of Understanding with WHO on global health security (2011);\(^{15}\)
• U.S. leadership in the development, launch, and ongoing activities of the GHSA;\(^{16}\) and
• an unprecedented deployment of U.S. personnel (including over 2,000 uniformed military service members), and resources in response to Ebola in West Africa, with Congress authorizing emergency appropriations for the response and for global health security.

**Organization**

Multiple U.S. agencies support global health security activities to prevent, prepare for, detect, and respond to EIDs.\(^{17}\) The National Security Council (NSC) is responsible for overall U.S. strategy and coordinating U.S. work on global health security.\(^{18}\) Key implementing agencies include USAID, CDC, and DoD.

**USAID**

USAID’s Emerging Pandemic Threats (EPT) program helps countries build their capacity to identify and respond to dangerous pathogens in animals and humans and to be prepared for outbreaks, including pandemics.\(^{19}\) Other USAID global health programs support general health systems strengthening, including building surveillance and laboratory capacities that have applications for global health security.

**CDC**

Several CDC divisions and programs, including the Global Health Protection Division of the Center for Global Health, engage in global health security efforts. The Division provides capacity-building, training, and educational support to other countries through the Global Disease Detection (GDD) Program and the Field Epidemiology Training Program (FETP).\(^{20}\) Other CDC global health programs help build surveillance, laboratory, and other capacities relevant to global health security.\(^{21}\) CDC has also created a cross-agency rapid response team for deployment in the event of an outbreak.\(^{22}\) The CDC was instrumental in developing the GHSA (see below) and is involved in supporting other countries’ efforts to reach the GHSA’s goals and targets in conjunction with other partners.

**DoD**

The Department of Defense (DoD) is engaged in global health security efforts through two main programs. The Defense Threat Reduction Agency’s Cooperative Biological Engagement Program (CBEP) funds capacity-building efforts to strengthen partner countries’ biosecurity, surveillance, and response capabilities and is a component of the DoD’s broader Cooperative Threat Reduction (CTR) program.\(^{23}\) The Global Emerging Infections Surveillance and Response System (GEIS) provides technical and funding support for DoD and partner organizations’ surveillance, research and development, outbreak response, and local capacity-building\(^{24}\) and helps support Army and Navy laboratories that are located in multiple countries.\(^{25}\)
Other U.S. GHS Efforts

The Department of State engages in diplomacy and coordination in support of global health security and is home to the Biological Engagement Program (BEP), a GHSA-related biological security assistance and capacity building effort with an annual budget of about $35 million a year. The Department of Health and Human Services (HHS) is the official U.S. point of contact with WHO for IHR purposes and has typically been the primary U.S. representative at multilateral meetings on EID topics; it also helps plan and coordinate U.S. global health security efforts. The National Institutes of Health (NIH) supports research and development of vaccines and drugs for EIDs, and the Food and Drug Administration (FDA) oversees their subsequent regulatory approval. The Department of Agriculture (USDA) engages in capacity building for animal health and food safety and supports surveillance and research on animal diseases overseas.

U.S. Engagement in the GHSA

The U.S. government played the leading role in developing the Global Health Security Agenda (GHSA), an international, multilateral initiative that aims to “provide guidance for countries to assess and manage serious health threats that have the potential to spread beyond their borders” and accelerate progress toward a world “safe and secure from infectious disease threats.” With an initial five-year horizon (2014-2019), the GHSA was created to help countries build the basic capacities required under the IHR, elevate pandemic threats as a global priority, and bring together actors across governments and societies to address infectious diseases. Today, the U.S. remains a key member of the initiative as part of the GHSA Steering Group, and recently, the Administration has expressed support for the extension of the GHSA for an additional five years.

The U.S. has an emphasis on 31 countries and one region in its global health security activities related to the GHSA (see Tables 2 and 3). In July 2015, the U.S. announced it would spend $1 billion on these activities in the 17 “Phase One” countries over five years.

### Table 2: Priority Countries for U.S. Global Health Security Efforts Related to the GHSA

<table>
<thead>
<tr>
<th>Phase One (17 countries, announced in July 2015)</th>
<th>Phase Two (14 countries and 1 region, announced in Nov. 2015)</th>
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<tbody>
<tr>
<td>Bangladesh Myanmar Cambodia Malaysia</td>
<td>Indonesia Laos</td>
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<tr>
<td>Burkina Faso Mali Democratic Republic of Congo Mozambique</td>
<td>Laos</td>
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<tr>
<td>Cameroon Pakistan Egypt Peru</td>
<td>Peru</td>
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<td>Cote D’Ivoire Senegal China Rwanda</td>
<td>Tanzania</td>
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<td>Ethiopia Sierra Leone South Africa Thailand</td>
<td>Uganda</td>
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<tr>
<td>Guinea Tanzania</td>
<td>Uganda</td>
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<td>India Cambodia China</td>
<td>Vietnam</td>
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<tr>
<td>Indonesia Democratic Republic of Congo</td>
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<td>Kenya Malawi Democratic Republic of Congo</td>
<td>Vietnam</td>
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<tr>
<td>Malaysia CARICOM</td>
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</tbody>
</table>

### Table 3: The GHSA’s Approach

Launched in 2014, the Global Health Security Agenda (GHSA) includes governments (including the U.S.) and multilateral institutions (including WHO), with support from public and private stakeholders, and was initially designed as a five-year (2014-2019) effort. Its more than 50 member countries have agreed to coordinate efforts and progress toward a set of goals in 11 areas (known as “action packages”). Some countries also agreed to undergo an external evaluation process to determine areas for improvement under the GHSA. This ultimately led to the development of the Joint External Evaluation (JEE) tool, which has helped over 50 countries measure areas in need of improvement under the GHSA. The overarching goals of the GHSA are threefold:

1. **Prevent Avoidable Epidemics**, including naturally-occurring, intentional, or accidental outbreaks;
2. **Detect Threats Early**, including identifying, characterizing, and transparently reporting threats at the earliest possible moment; and
3. **Respond Rapidly and Effectively** to biological threats of international concern.

The GHSA Steering Group, which includes the U.S. and nine other countries, coordinates the work among member countries. In addition to the WHO, other key partners in the GHSA include the United Nations Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE), since many EIDs have origins in animals. The World Bank and World Trade Organization (WTO) are also GHSA partners, and the private sector engages through a GHSA Private Sector Roundtable.

The GHSA and IHRs are meant to be complementary approaches, as GHSA action packages are designed to support countries’ progress toward meeting their IHR core capacity requirements. While the GHSA and IHR facilitate cooperative efforts among countries, ultimately country governments are responsible for ensuring capacity to prevent, identify, and respond to emerging diseases within their borders.
This $1 billion includes $909 million specified for global health security by Congress in the FY 2015 emergency Ebola appropriation (see below) as well as additional Ebola funds that the U.S. government determined support global health security activities. U.S. global health security efforts contribute to partner countries’ implementation of GHSA action packages. Measurable improvements in country capabilities have been reported, including more comprehensive and timely reporting of disease outbreaks in countries like Cameroon, India, Uganda, and Vietnam.

**Funding**

Total funding for the primary U.S. global health security programs has remained relatively flat from FY 2006 through FY 2017, with episodic spikes in funding through supplemental funding mechanisms (including emergency funding) reflecting specific outbreak events, including Ebola in FY 2015 and Zika in FY 2016. U.S. funding was $407 million in FY 2016 (not including Zika funding) and $402 million in FY 2017 (see Figure 1). The Administration has requested $353 million for global health security in FY 2018, which would represent a decrease of $49 million (12%) compared to FY 2017.

Funding is provided through both regular appropriations and at times through supplemental appropriations (usually designated as emergency funding not subject to budget spending limits) in response to specific disease events. For example, Congress provided $3.7 billion in emergency funding in FY 2015 for international activities related to the Ebola outbreak, specifying that $909 million — $312 million to USAID and $597 million to CDC — should be directed to global health security activities. The CDC funding must be expended by the end of FY 2019, while the USAID funding does not have an end date. In FY 2016, Congress provided an additional $145.5 million for global health security activities at USAID as part of an emergency Zika funding package to be expended in that fiscal year.

U.S. funding for global health security is provided primarily through accounts at USAID, CDC, and DoD (see Figure 2 and Table 4):

- **USAID:** After falling from its peak of $201 million in FY 2010 to below $60 million each year from FY 2011 through FY 2013, USAID received about $72.5 million each year since FY 2014 through regular
appropriations for its global health security activities, primarily the EPT program. In FY 2015, however, its overall total grew to $385 million, including $312 million in emergency Ebola funding made available with no end date, and in FY 2016, it was $218 million, including $145.5 million in emergency Zika funding to be expended in that fiscal year. In FY 2017, its funding was $72.5 million; additionally, Congress provided for a $70 million “emergency reserve fund,” to be made available to support a future response to an “emerging health threat that poses severe threats to human health.” The Administration has requested $72.5 million in re-programmed funding to support global health security activities in FY 2018.

- **CDC:** Since FY 2012, CDC received roughly $55 million each year under “Global Public Health Protection.” In FY 2015, however, its overall total grew to $652 million including $597 million in emergency Ebola funding, which was made available to be spent through FY 2019. CDC’s global public health protection program received $55.2 million in FY 2016 and $58.2 million in FY 2017. The Administration has requested $50 million for these activities in FY 2018.

- **DoD:** The highest-funded U.S. global health security program, CBEP received $222 million in FY 2016 and $214 million in FY 2017, down from a high of $320 million in FY 2014 but up significantly from $70 million in FY 2006. GEIS received between $42 to $58 million each year during that period. The Administration has requested $172.8 million for CBEP in FY 2018, while its FY 2018 request for GEIS is not currently known.

Beyond these key accounts, other funds may be used for global health security activities, though public information about them is often limited. For example, DoD provides some funding to support Army and Navy overseas labs, and the Department of State, USDA, and other agencies’ budgets support additional global health security activities.
Key Issues for the U.S.

The U.S. has supported global health security activities for more than two decades, with long-standing U.S. programs and policies in place, and was a key architect and driving force in the launch of the GHSA. Through these activities, the U.S. has helped other countries make measurable improvements in their capabilities to detect and respond to emerging disease events. Even so, U.S. attention to and funding for global health security have waxed and waned over time, often driven by responses to specific disease events – such as Ebola in 2014/15 and Zika in 2016 – and there remain several issues about the future of U.S. engagement in this arena. These include:

- the future U.S. funding for global health security efforts and the potential scaling back of recently expanded U.S. efforts if funding levels are not sustained in coming years;

- the U.S. role in shaping the GHSA going forward;

- U.S. government coordination across the interagency (particularly between the health and security sectors) as well as with partner countries and multilateral actors, such as WHO;

- encouragement and help to countries to meet IHR obligations and GHSA targets; and

- support of efforts to strengthen global epidemic response processes, particularly at WHO.

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The U.S. Government and Global Health Security


Security Agenda in 17 Partner Countries

IOM, International Public Health Capacity Training funding and some domestic and overseas outbreak health security and EID preparedness and response in emergencies (e.g., CDC’s epidemiology and laboratory training activities that are supported by its GEIS Programs: Strengthening Global Surveillance and Response.


19 $597 million for CDC and $312 million for the USAID Global Health Programs account.


21 This funding stream used to be referred to as Pandemic Influenza and Other Emerging Threats (PIOET) but is now referred to as Global Health Security in Development in the most recent USAID congressional budget justification.

22 Funding provided for the Emergency Reserve Fund in FY 2017 is not included in global health security funding totals in this fact sheet.

23 For FY 2018, while the Administration is proposing to eliminate direct funding for USAID’s global health security program through regular appropriations, it is proposing a one-time transfer of $72.5 million for these activities from unspent emergency Ebola funding in the USAID/IDA account.

24 Figure 2 and Table 4 assume level funding at the FY 2017 level for GEIS in the FY 2018 request.

25 Furthermore, the U.S. funds other activities that support broader health systems capabilities in the U.S. and/or overseas that contribute to global health security and EID preparedness and response in emergencies (e.g., CDC’s epidemiology and laboratory training activities that are supported by its International Public Health Capacity Training funding and some domestic and overseas outbreak-related activities of CDC’s National Center for Emerging and Zoonotic Infectious Diseases).

