



USAID OFFICE OF
INSPECTOR GENERAL



HHS OFFICE OF
INSPECTOR GENERAL

Quarterly Progress Report on
**U.S. GOVERNMENT
INTERNATIONAL EBOLA RESPONSE
AND PREPAREDNESS ACTIVITIES**



Children at Lango Lippaye Elementary, Junior, and Senior High School in Kakata City, Liberia with school kits from USAID partner, United Nations Children's Fund, as part of Ebola recovery efforts to ensure that children were able to safely return to schools after they were closed during the Ebola outbreak. (Photo by USAID, November 17, 2016)

Quarterly Progress Report
on
U.S. Government
International Ebola Response
and Preparedness

June 30, 2016



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EXECUTIVE SUMMARY

During the quarter, Guinea and Liberia, with support from the U.S. Government and international partners, responded and controlled Ebola virus disease (EVD) cases that flared up in March 2016. Although there were no new reported EVD cases as of the end of the reporting period, serious challenges continued to impact response efforts and new clusters of EVD cases could emerge.

The EVD outbreak in West Africa started in Guinea in December 2013 and became the largest EVD epidemic in history. The heavily affected countries of Guinea, Liberia, and Sierra Leone reported 28,616 cumulative suspected, probable, and confirmed EVD cases, and 11,310 deaths, by the end of the reporting period.

The United States, along with other international partners, mobilized resources to control the outbreak, mitigate second-order impacts of the crisis, and strengthen global health security. By the end of the reporting period, U.S. Government agencies reported obligating \$3.01 billion and disbursing \$1.77 billion toward international Ebola response, preparedness, and recovery activities.

The U.S. Agency for International Development (USAID), the U.S. Government's lead for Ebola response, and the Centers for Disease Control and Prevention (CDC) continued working to strengthen surveillance, preparedness, and response capabilities in Guinea, Liberia, and Sierra Leone during the quarter. CDC, the Food and Drug Administration (FDA), and the National Institutes of Health (NIH) reported activities to assist EVD survivors, such as providing technical support to semen testing programs and launching new research studies. USAID reported transitioning efforts from response to recovery, including transferring EVD commodities to partner organizations.

CDC and USAID continued efforts to strengthen the affected countries' health systems and restore health services through activities to strengthen infection and prevention control in health facilities, assist immunization programs, train healthcare workers, and promote the use of health services. CDC and USAID also worked to strengthen global health security during the quarter by assisting countries to improve public health infrastructure, respond to other disease outbreaks, and conduct EVD surveillance in host animals.

While activities continued for EVD response, preparedness, and recovery, U.S. Government agencies also reported activities to respond to the Zika virus outbreak, a new disease threat. During the quarter, the Department of Health and Human Services (HHS) and USAID identified \$510 million in existing Ebola funds that could be redirected for Zika response efforts. By the end of the reporting period, USAID reported \$91.1 million in obligations to support behavior change communication to reduce the risk of Zika infections, and service delivery activities for affected individuals and families.

NUMBERS AT A GLANCE

\$3.01 billion

Cumulative
U.S. Government obligations

\$1.77 billion

Cumulative
U.S. Government
disbursements

4

Number of new confirmed
Ebola cases reported to USAID
during the quarter

28,616

Cumulative Ebola cases
reported to WHO

11,310

Cumulative Ebola deaths
reported to WHO

599

Number of days the EVD
outbreak in West Africa was
declared a "public health
emergency of international
concern" by WHO

11

Number of ongoing Ebola-
related audits and reviews by
the OIGs for DoD, DHS, DOS,
GAO, HHS, and USAID at the
end of the reporting period

The Inspector General community continued to provide oversight and promote accountability of U.S. Government activities related to EVD response and preparedness. The Offices of Inspector General (OIGs) for U.S. Government agencies involved with the EVD response and preparedness issued 5 audits reports of note since the start of EVD outbreak and along with the Government Accountability Office, 11 audits and reviews were underway as of the end of the reporting period.

Ebola Outbreak in West Africa

The 2014-2015 EVD outbreak in West Africa is the largest EVD epidemic in history.¹ In June 2016, the World Health Organization (WHO) reported 28,616 suspected, probable, and confirmed cases, and 11,310 deaths in Guinea, Liberia, and Sierra Leone.² WHO also reported 36 EVD cases and 15 deaths in 7 other countries, including the United States.³

According to WHO, the epidemic originated in Guinea in December 2013 and spread unidentified to other parts of the country, reaching the Guinean capital, Conakry, in February 2014.⁴ The Institut Pasteur (France) confirmed the disease was EVD on March 22, 2014, and the following day, WHO publicly announced the EVD outbreak in Guinea.⁵ By March 30, 2014, neighboring Liberia reported two confirmed cases of EVD, while Sierra Leone identified two suspected cases.⁶ The decline in newly reported EVD cases in Guinea and Liberia in April and May 2014 led international health experts to believe the outbreak had been controlled.⁷ However, Sierra Leone reported its first confirmed EVD case on May 24, 2014 and the virus continued to spread.⁸ WHO cited weak health systems, diagnosis delays, and national governments' lack of experience identifying EVD or containing its transmission as contributing factors.⁹

EVD cases in Guinea, Liberia, Nigeria, and Sierra Leone reached 1,440 with 826 deaths by July 2014, according to WHO.¹⁰ On August 8, 2014, WHO declared the EVD outbreak a "public health emergency of international concern."¹¹ On September 18, 2014, the United Nations (UN) Security Council declared the EVD outbreak in West Africa a "threat to international peace and security" and called for all nations to assist in responding to the EVD outbreak.¹² The UN created the UN Mission for Ebola Emergency Response, the first-ever UN public health mission, to improve coordination of international response activities.¹³

New EVD cases per week in West Africa peaked in September 2014, exceeding 700.¹⁴ At the start of 2015, new confirmed EVD cases per week dropped to approximately 330 and continued to decline over the next several months, to fewer than 151 new confirmed cases per week in March 2015, and then under 28 new confirmed cases per week in June 2015.¹⁵ By the end of July 2015, newly reported confirmed cases fell below 10 per week and continued to decline until there were no new reported confirmed cases at the end of the year.¹⁶ WHO declared Liberia free of EVD transmission for the first time in May 2015, while similar declarations were made for Sierra Leone and Guinea in November and December 2015, respectively.¹⁷

On March 29, 2016, the WHO Director-General declared that the EVD outbreak in West Africa was no longer a "public health emergency of international concern."¹⁸ However, WHO warned that new clusters of Ebola cases could emerge.¹⁹ According to WHO, exposure to infected survivor body fluids remains a risk for additional outbreaks and that Guinea, Liberia, and Sierra Leone "have variable capacity to prevent, detect and respond to new outbreaks."²⁰

EBOLA OUTBREAK: APRIL—JUNE 2016

At the start of the reporting period, Guinea and Liberia, with support from the U.S. Government and international partners, continued responding to EVD cases that flared up on March 17, 2016 and March 31, 2016, respectively.²¹ According to CDC and USAID, the outbreaks were linked to an EVD survivor in Guinea’s N’Zérékoré Prefecture.²² According to CDC, the two countries’ EVD surveillance and response efforts identified and monitored more than 1,200 contacts.²³ In addition, more than 1,500 people were vaccinated in Guinea, administered primarily by WHO, while CDC and NIH were supporting the Ministry of Health in Liberia in administering vaccination to approximately 230 people.²⁴

The Ebola Treatment Units (ETU) in Guinea discharged its last EVD patients on April 21, 2016, while Liberia discharged its last patients on April 29, 2016.²⁵ According to USAID, four new confirmed cases and one death in Guinea and Liberia were reported during this reporting quarter.²⁶ WHO declared the end of EVD transmission in Guinea and Liberia on June 1, 2016

and June 9, 2016, respectively.²⁷ (WHO declares a country to be EVD transmission free when the country achieves a 42-day period with no new EVD cases.²⁸) At the end of the reporting period, there were no new reported EVD cases.

According to CDC, national responses to the EVD cluster were well coordinated in Guinea and Liberia but serious challenges that affected response efforts remained, such as the countries’ weak communications connectivity and poor transport systems.²⁹ CDC and USAID also reported ongoing community resistance that affected efforts to identify and monitor contacts in rural Guinea and administer vaccines in Liberia.³⁰ In addition, USAID also noted that low levels of trust in authorities



Figure 1. Cumulative EVD Case Counts by Country, as of June 30, 2016. (Source: WHO, May 11, 2016)

challenged EVD response in the two countries as well as Sierra Leone.³¹

U.S. Government Response to the Ebola Outbreak

Since EVD was identified in March 2014, the U.S. Government has been engaged in international Ebola response efforts, monitoring the EVD outbreak, deploying personnel to support response efforts, and providing funds to WHO to assist affected countries.³² In July 2014, USAID's Office of Foreign Disaster Assistance (OFDA) conducted an initial assessment of the outbreak in Guinea, Liberia, and Sierra Leone, and CDC activated its Emergency Operations Center in Atlanta.³³

In August 2014, following disaster declarations in Guinea, Liberia, and Sierra Leone, USAID deployed Disaster Assistance Response Teams (DART) to the region to assess conditions, coordinate the interagency response, and identify gaps in the EVD response effort.³⁴ The following month, the Department of Defense (DoD) began providing direct support to civilian-led response efforts under Operation United Assistance.³⁵

The U.S. Government's whole-of-government approach to EVD outbreak response and preparedness efforts designated USAID as the lead federal agency to manage and coordinate the U.S. effort overseas.³⁶ CDC led the response's medical and public health components, with significant contributions from other federal agencies, such as DoD, the Department of State (DOS), FDA, HHS Office of the Assistant Secretary for Preparedness and Response (ASPR) and Biomedical Advanced Research and Development Authority (BARDA), NIH, and the U.S. Public Health Service.³⁷

The U.S. Government's EVD outbreak response and preparedness strategy has four components: (1) control the outbreak, (2) mitigate second-order impacts of the crisis, (3) build coherent leadership and operations, and (4) strengthen global health security.³⁸

As the EVD outbreak diminished, the scope of the response changed accordingly. DoD's Operation United Assistance ceased on June 30, 2015; USAID deactivated its West Africa Ebola DART and the corresponding Washington, D.C.-based Response Management Team on January 4, 2016; and CDC deactivated its Emergency Operations Center for Ebola on March 31, 2016.³⁹ USAID and CDC continue to support residual response efforts through their respective program offices in all three countries.

Funding Response, Preparedness, and Recovery Efforts

As of June 24, 2016, the United States remained the largest international financial contributor to EVD outbreak response efforts, according to information from USAID and the UN Office for the Coordination of Humanitarian Affairs.⁴⁰ U.S. Government commitments to these efforts were greater than the amounts provided by the next nine leading donors combined.⁴¹

Congress appropriated more than \$5.370 billion in emergency funds for Ebola prevention and

response to several federal agencies as part of the Fiscal Year (FY) 2015 omnibus appropriation (P.L. 113-235, December 16, 2014). Of the total amount provided, \$3.726 billion was specifically designated for international efforts, with an additional \$532 million for use in either domestic or international settings.⁴² While appropriations to USAID and DOS have a clear tie to international activities, funds appropriated to HHS and DoD were made available for either domestic or international work.⁴³ Funding that supports vaccine and therapeutic drug development, for example, may be used in the United States or abroad. As shown in Table 1, Congress made funds that it provided for Ebola preparedness and response available over different periods of time.⁴⁴

Table 1: Availability of Ebola-related funding for U.S. agencies:

Agency	Account	Availability Until:
DoD	Procurement	FY 2017
	Research, Development, Test and Evaluation	FY 2016
DOS	Diplomatic and Consular Programs	FY 2016
	Economic Support Funds	FY 2016
	Nonproliferation, Anti-Terrorism, Demining and Related Programs	FY 2016
HHS	CDC	FY 2019
	FDA	Available until expended
	NIH	FY 2016
	Public Health and Social Services Emergency Fund	FY 2019
USAID	Economic Support Funds	FY 2016
	Global Health	Available until expended
	International Disaster Assistance	Available until expended
	Operating Expenses	FY 2016

While Congress required HHS to provide notification of uses of funding on a quarterly basis, it mandated that USAID and DOS provide monthly reports on the proposed use of appropriated Ebola preparedness and response funds through at least September 30, 2016.⁴⁵

Overall, as shown in Table 2, U.S. Government agencies had obligated about \$3.01 billion towards these efforts as of the end of the reporting period. Available information on U.S. Government Ebola-related spending indicates that approximately \$1.77 billion had been disbursed. As a share of total obligations, these disbursements accounted for approximately 59 percent. HHS and USAID reported \$346.4 million in new obligations and \$233.1 million in new disbursements toward international Ebola response, recovery, and preparedness efforts during the quarter.

Table 2. Ebola-related International Appropriations, Obligations, and Disbursements as of June 30, 2016 (unaudited, in millions of dollars)

Department / Agency Account	Appropriated [†]				Obligated	Disbursed
	FY 2013	FY 2014	FY 2015	Total	FY 2014 16	FY 2014 16
DoD[‡]	18.9	613.6	122.6	755.1	656.3	494.1
<i>Overseas, Humanitarian, Disaster Assistance, & Civic Aid</i>	-	485.0	-	485.0	421.5	329.1
<i>Cooperative Threat Reduction</i>	15.5	69.6	-	85.1	60.9	51.4
<i>Research, Development, Test & Evaluation</i>	3.4	58.9	105.6	167.9	156.9	102.3
<i>Procurement</i>	-	-	17.0	17.0	17.0	11.3
<i>Operations & Maintenance</i>	-	<0.1	-	<0.1	<0.1	<0.1
DOS	-	-	46.7	46.7	44.2	36.1
<i>Diplomatic & Consular Programs</i>	-	-	36.4	36.4	34.2	34.0
<i>Nonproliferation, Anti-Terrorism, Demining, & Related Programs</i>	-	-	5.3	5.3	5.0	2.1
<i>Economic Support Fund</i>	-	-	5.0	5.0	5.0	-
HHS	-	33.2	1,951.6	1,984.8	876.1	394.0
<i>CDC</i>	-	-	1,172.0 [§]	1,172.0 [§]	429.9	244.2
<i>NIH</i>	-	33.2 ^{††}	238.0 ^{††}	271.2 ^{††}	224.5	88.3
<i>Public Health & Social Services Emergency Fund</i>	-	-	515.2 ^{††}	515.2 ^{††}	203.9	54.0
<i>FDA</i>	-	-	26.4 ^{††}	26.4 ^{††}	17.8	7.5
USAID^{††}	-	-	2,479.6	2,479.6	1,437.5	841.4
<i>International Disaster Assistance</i>	-	-	1,436.3 ^{§§}	1,436.3	903.3	750.8
<i>Economic Support Fund</i>	-	-	706.7 ^{§§}	706.7	343.4	66.6
<i>Global Health Programs</i>	-	-	312.0	312.0	182.9	19.1
<i>Operating Expenses</i>	-	-	19.0	19.0	4.7	2.4
<i>OIG</i>	-	-	5.6	5.6	3.1	2.6
TOTAL	18.9	646.8	4,600.5	5,266.3	3,014.2	1,765.6

Sources: DoD OIG, DOS OIG, HHS OIG, USAID Office of Budget and Resource Management, Congressional Research Service, and P.L. 113-235.

Note: Amounts may not add due to rounding.

† Appropriation figures include funds that were originally appropriated to other accounts or for other purposes (such as funding appropriated in FYs 2013 and 2014) that was later realigned or reprogrammed to support Ebola response activities. These figures do not include funds specifically appropriated for domestic Ebola preparedness and response.

‡ DoD management asserted to DoD OIG that the DoD FY 2015, FY 2014, and FY 2013 Basic Financial Statements would not substantially conform to U.S. generally accepted accounting principles and that DoD financial management and feeder systems were unable to adequately support material amounts on the basic financial statements as of September 30, 2014. Because of the significance of this and other scope limitation matters, DoD OIG could not obtain sufficient appropriate evidence to provide a basis for an audit opinion. Accordingly, DoD OIG did not express an opinion on the DoD FY 2015, FY 2014, and FY 2013 Basic Financial Statements. Thus, the basic financial statements may have undetected misstatements that are both material and pervasive.

Previously reported amounts appropriated under the Overseas, Humanitarian, Disaster Assistance, & Civic Aid account include \$265 million that was realigned to support other humanitarian assistance, disaster relief efforts, and pandemic response initiatives during FY 2015.

DoD acknowledged that previous reporting overstated obligations amounts, and the revised obligation amounts were based on updated reporting.

Funds were de-obligated under Cooperative Threat Reduction and Research, Development, Test & Evaluation for projected requirements that did not materialize, and DoD reallocated previously appropriated funds accordingly.

§ CDC received \$1.77 billion in appropriations for Ebola activities inside and outside the United States in the December 2014 Consolidated and Further Continuing Appropriations Act, \$1.2 billion of which was specifically designated for international use. In addition to the \$444.6 million that CDC had obligated toward international Ebola response and preparedness activities as of June 30, 2016, CDC reported that it had obligated \$484 million for activities inside the United States.

HHS reported updated appropriated FY 2015 funding totals to include transfers and reallocations.

†† Includes funding for possible domestic or international use.

HHS reported updated appropriated FY 2015 funding totals to include transfers and reallocations.

‡‡ Reported appropriations, obligations, and disbursements for USAID do not reflect spending on pre-existing programs and activities in countries affected by the EVD outbreak that were substantially modified in response to the outbreak.

§§ These totals include past reimbursements to FY 2014 accounts against which obligations were made prior to the enactment of the FY 2015 omnibus appropriation. USAID used \$376.8 million in Ebola emergency IDA funds to reimburse FY 2014 and FY 2015 IDA accounts for pre-enactment obligations. USAID used \$29.7 million in Ebola emergency Economic Support Funds to reimburse prior year accounts for pre-enactment obligations.

USAID reported that it had notified Congress of the intent to obligate \$265.9 million in Ebola-related funding, and as of July 19, 2016, Congress had placed all of this total on hold.⁴⁶

As Figure 2 illustrates, by the end of the reporting period, USAID had accounted for the largest share of U.S. Government obligations for international preparedness and response efforts with 48 percent, followed by HHS with 29 percent, DoD with 22 percent, and DOS with 1 percent.

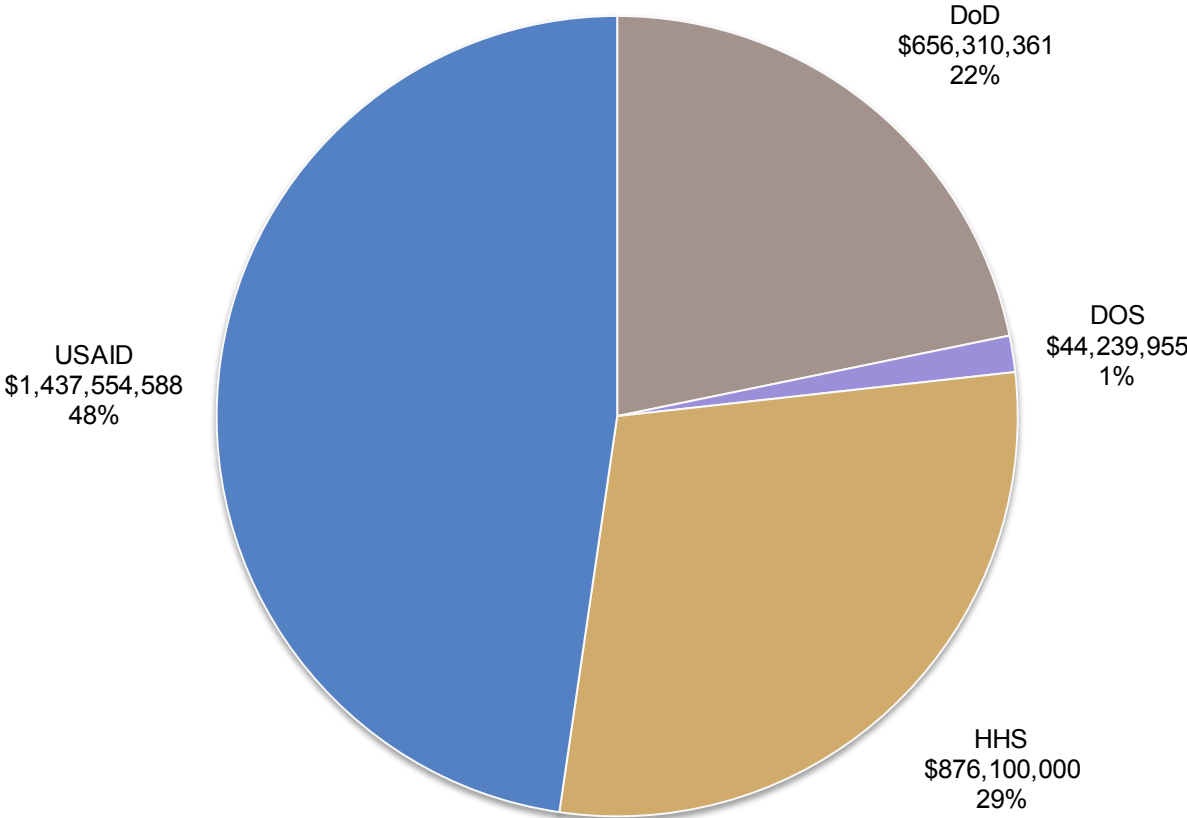


Figure 2. U.S. Government Obligations for International Ebola Efforts by U.S. Agency, as of July 1, 2016. (Source: DoD OIG, DOS OIG, HHS OIG, USAID Office of Budget and Resource Management)

USAID reported the largest amount of new obligations, with \$222.5 million, an increase of approximately 18 percent over the previous quarter. HHS reported \$123.9 million in additional obligations during the reporting period.

DOS and USAID track project spending in line with the U.S. Government strategy for Ebola preparedness and response. As of July 1, 2016, DOS reported \$44.2 million in obligations while USAID reported \$1.44 billion in obligations in support of Ebola response, preparedness, and recovery efforts.⁴⁷ Of USAID's total, about \$795.6 million, or approximately 64 percent, was associated with activities to control the EVD outbreak.⁴⁸ Outbreak control activities also accounted for the largest share of USAID disbursements, with 82 percent of USAID's Ebola-

related disbursements by the end of the reporting period.⁴⁹ As the outbreak waned, the proportion of USAID’s obligations devoted to activities to control the EVD outbreak also declined, while efforts to support recovery and preparedness activities increased, as Figure 3 illustrates.

USAID’s obligations to mitigate second order impacts activities increased to 18 percent of USAID’s total obligations from the previous quarter, while activities to strengthen global health activities accounted for 16 percent. Activities to build coherent leadership and operations were associated with less than 2 percent of total USAID obligations through the end of the reporting period.

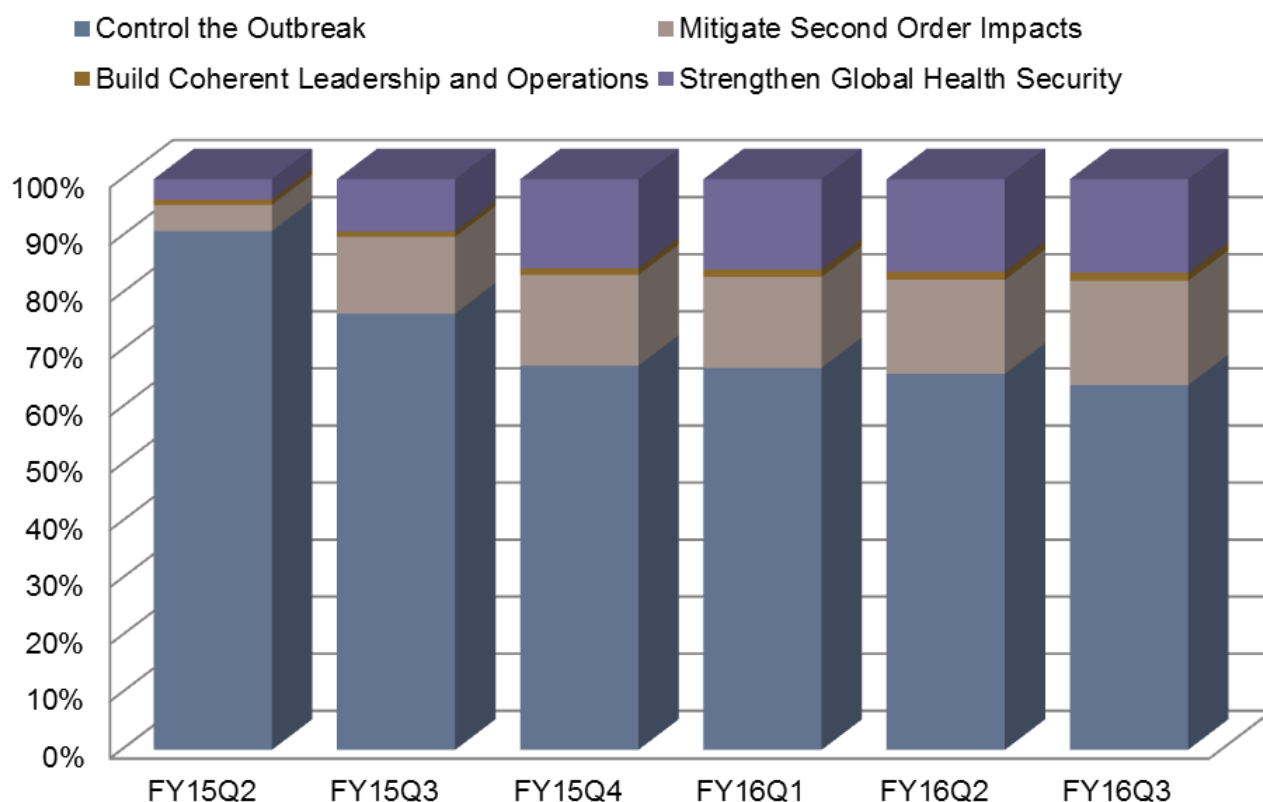


Figure 3. USAID Obligations by Strategy Pillar and Quarter, as of July 1, 2016. (Source: USAID Office of Budget and Resource Management)

U.S. Government Efforts to Control the Outbreak

The U.S. Government's activities to stop EVD transmission included contact tracing, EVD surveillance, safe burial, behavior change, and community outreach.⁵⁰ By the end of this quarter, USAID-supported ETUs—used to isolate and treat suspected, probable, and confirmed EVD patients—were no longer operational in the region.⁵¹ However, two USAID-supported ETUs in Forécariah and Macenta, Guinea, (managed by the French Red Cross) remain on standby with the capability to reactivate within 48 hours.⁵²

According to CDC, the responses to the recent EVD cluster among U.S. Government agencies were well-coordinated.⁵³ CDC reported that it responded to the recent EVD cluster in Guinea and Liberia with contact tracing, management of response-related data, case investigation, as well as supporting vaccination efforts, use of rapid diagnostic tests, and infection prevention and control (IPC) procedures.⁵⁴ CDC cautioned that although the EVD outbreak has been controlled in all three countries, the persistent risk of new EVD cases occurring necessitates maintaining surveillance and response capacity.⁵⁵

CDC also emphasized the need to understand viral persistence in survivors and to reduce transmission risk.⁵⁶ During the quarter, CDC continued providing technical support to semen testing programs in all three countries, and FDA and NIH launched new research studies on EVD survivors.⁵⁷ In May 2016, FDA awarded a contract to Stanford University to understand factors responsible for chronic health problems in EVD survivors.⁵⁸ In June 2016, NIH started a new study, PREVAIL IV, to assess Gilead's GS-5734 drug in eradicating Ebola viral RNA in male survivors with persistent Ebola virus RNA in their semen.⁵⁹

NIH's ongoing PREVAIL III trial—a collaborative study with CDC and the Government of Liberia of EVD survivors and their close contacts—had enrolled 3,458 individuals as of June 16, 2016.⁶⁰ According to NIH, the PREVAIL III study aims to help understand EVD's long-term consequences, characterize associated health problems, determine whether “survivors develop immunity that will protect them from future Ebola infection, and assess whether individuals can transmit Ebola infection to close contacts and sexual partners”.⁶¹

Meanwhile, USAID worked with the humanitarian community, host governments, and partners to transition efforts from response to recovery and ensure that critical response activities continued.⁶² For example in Liberia, USAID partner the UN World Food Program (WFP) transitioned management of EVD-related food commodities and logistics assets to Liberia's General Service Agency.⁶³ USAID reported that the majority of the equipment and supplies procured for the response have been transferred to organizations that implement USAID and U.S. Government-funded or related health activities.⁶⁴ According to USAID, challenges to transition efforts remained ongoing, such as communication and coordination between the disparate partners involved, and adapting plans to align with changing recovery initiatives.⁶⁵

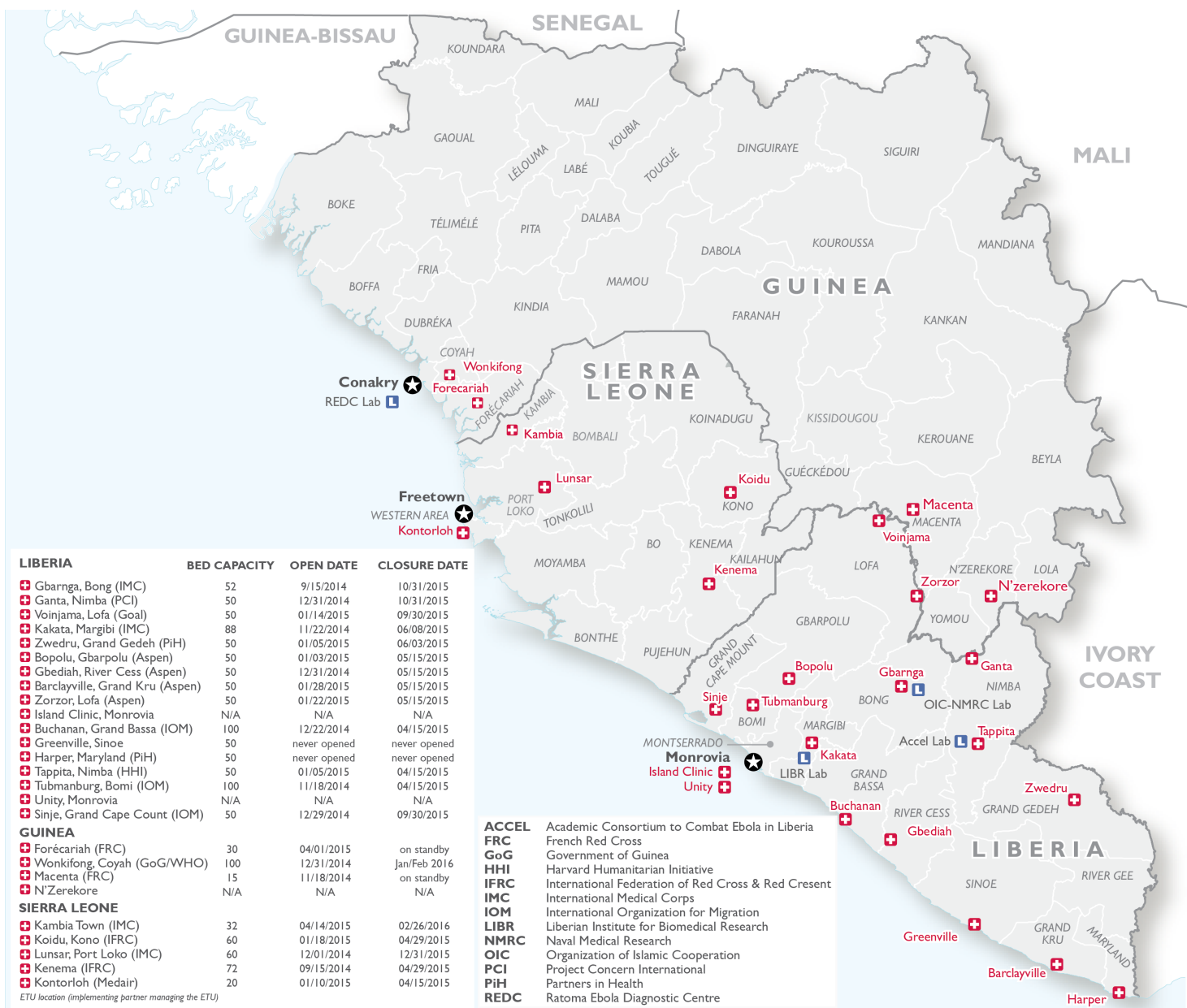


Figure 4. Location of U.S. Government-supported ETUs and laboratories in Guinea, Liberia, and Sierra Leone, as of June 30, 2016. (Source: USAID, 2016)

GUINEA

USAID's response to the recent EVD cluster in Guinea included partnering with the International Organization for Migration (IOM) to install sanitary checkpoints, with WFP to distribute food to households, and with Catholic Relief Services (CRS) and WHO to support IPC activities at health facilities in affected areas.⁶⁶ In addition, USAID provided the French Red Cross more than \$1.6 million during the quarter to maintain the Forécariah and Macenta ETUs on standby, and to train Guinean healthcare workers in these two areas as well as Coyah Prefectures—areas that USAID identified as high-risk for EVD reemergence—on EVD and infectious disease management.⁶⁷

During the quarter, CDC supported Ministry of Health efforts to identify and enroll all EVD survivors in its “SA Ceint” program, which tests semen and other body fluids, and engages survivors to conduct surveillance for illness and death in their communities.⁶⁸ By the end of the reporting period, CDC reported that body fluids from 234 survivors were tested and 1,400 of their contacts were vaccinated.⁶⁹

LIBERIA

When new EVD cases appeared in March and April 2016, IOM increased surveillance at more than 50 crossing points serving approximately 1,500 communities bordering Guinea.⁷⁰ For families under precautionary observation, USAID partner the UN Children’s Fund (UNICEF) provided psychosocial support and safe drinking water, while USAID partner WFP distributed food.⁷¹ The Government of Liberia received CDC technical assistance and WHO support for epidemiological surveillance, case investigation, and contact tracing—including active case-finding support—at more than 280 health facilities in Montserrado County.⁷²

The USAID-supported Epidemic Preparedness and Response (EPR) consortium also assisted with epidemiological surveillance, case investigation, case management, and contact tracing, as well as implementing rapid diagnostic tests and providing logistical coordination in five counties bordering Guinea or hosting transitory populations.⁷³ USAID partner Global Communities, a member of the EPR consortium, led disinfection and safe burial efforts, including disinfecting two clinics that treated EVD cases and increasing the number of safe burial teams from five to eight.⁷⁴ As USAID transitioned to recovery efforts, USAID also reported closing out three response-related awards for Global Communities, WFP, and WHO during the quarter.⁷⁵

CDC reported that in Liberia, rapid diagnostic EVD testing of persons living and deceased was being rolled out nationwide during the quarter.⁷⁶ In addition, CDC’s IPC training program for healthcare workers in Liberia advanced a mentorship program that incorporates IPC training information into routine activities.⁷⁷

SIERRA LEONE

During the quarter, USAID provided International Rescue Committee more than \$7 million to boost local and district health systems’ disease surveillance and response capacity and to strengthen IPC adherence at health facilities, including at 19 government hospitals.⁷⁸ According to USAID, community-event based surveillance hastens healthcare workers’ EVD identification and response.⁷⁹ USAID also provided the International Medical Corps nearly \$3 million for community outreach activities, such as EVD prevention and surveillance, and rapid response capacity at the district level to enhance community preparedness for future EVD cases.¹⁰⁰ In addition, CDC’s field epidemiology training program launched its Frontline training course in Sierra Leone during the quarter with a cohort of 20 residents.¹⁰¹

U.S. Government Recovery Efforts to Mitigate Second-Order Impacts

FOOD SECURITY

USAID reported that increased economic activity, the resumption of agricultural production, reopened borders, and the lifting of restrictions improved food security conditions during the quarter in Guinea, Liberia, and Sierra Leone.⁸² However, according to the Famine Early Warning Systems Network, disruptions of coastal fishing activities and below-average rubber prices continue to stress food security in small areas in Liberia, and the food insecurity level in most of Sierra Leone was stressed due to below-average harvests and higher food prices.⁸³

During the quarter, USAID and its partners boosted food security and market recovery through cash transfers, cash-for-work, and agricultural input vouchers programs, according to USAID.⁸⁴ USAID also reported that UNICEF received a no-cost award extension until December 31, 2016, to continue activities to screen, refer and treat severe acute malnutrition in Guinea, Liberia, and Sierra Leone.⁸⁵

In Guinea, USAID partner CRS launched its livelihood recovery strategy for 20,000 Ebola-affected beneficiaries in Macenta and N'zerekore prefectures.⁸⁶ Recovery activities included livelihood fairs where household food producers and agricultural traders could exchange vouchers for farm equipment and other agricultural inputs.⁸⁷ USAID reported that during April 2016, Catholic Relief Services provided 20,000 Ebola-affected beneficiaries with cash vouchers at livelihood fairs attended by local vendors selling seeds, labor tools, and other trades.⁸⁸ In addition, USAID provided Save the Children in Sierra Leone an additional \$3.2 million to continue its unconditional cash transfers program to help 7,919 Ebola-affected households meet their food consumption needs during the lean season.⁸⁹

HEALTH SYSTEMS AND CRITICAL NON-EBOLA HEALTH SERVICES

The EVD outbreak devastated the already weak healthcare systems in Guinea, Liberia, and Sierra Leone.⁹⁰ Existing public health services were diverted to the EVD response efforts, many healthcare workers contracted and died from EVD, and some health services stopped.⁹¹ USAID stated that its programs have helped reopen and rehabilitate primary healthcare facilities, restore primary health services, promote public health and treatment seeking behaviors, and strengthen IPC activities in health facilities.⁹² CDC similarly reported it supported IPC activities to improve overall healthcare quality, and provided technical assistance to immunization programs in the three countries.⁹³

During the quarter, USAID supported efforts to train and mentor community healthcare workers (CHWs).

- In Guinea, USAID stated that 534 CHWs attended training sessions conducted by USAID-supported Bridges of Hope, which encourages individuals to use health facilities and seek antenatal care.⁹⁴ According to USAID, by the end of the quarter, CHWs in Guinea educated 2,090 community members on the importance of hand washing and facilitated the referral of 415 sick community members to health facilities.⁹⁵ USAID also supported new training programs to improve communication between health providers and patients to develop a culture of quality services and respect for patients.⁹⁶ According to USAID, an initial group of 224 participants from 8 prefectures in Guinea participated in these training programs during the reporting period.⁹⁷
- In Liberia, USAID trained 1,240 general community health volunteers by the end of the quarter on malaria rapid diagnostic test, integrated community case management service, immunization, and family planning.⁹⁸
- In Sierra Leone, USAID trained 301 health post staff on maternal and child health care, such as prenatal care, safe delivery, and newborn care during the quarter.⁹⁹



General community health volunteers at a training session supported by USAID's Partnership for Advancing Community Based Services in Caresburg, Liberia. (Source: USAID OIG, June 7, 2016)



Interagency Ebola meeting with representatives from USAID, CDC, NIH, and Embassy of Guinea. (Source: USAID OIG, June 10, 2016)

In Guinea, USAID reported producing and airing 33 radio programs in 9 different languages during the quarter to promote antenatal care services, child immunization, the Gold Star campaign for quality health services, and other health topics identified by local health authorities.¹⁰⁰ USAID also reported launching the Gold Star campaign in seven sites in Guinea during the quarter, which included community mobilization events, dissemination of key health messages, and the unveiling of a new logo.¹⁰¹ In Liberia, USAID launched the Health Life brand and aired a health promotion program called Community Action for a Health Life on 26 stations nationwide.¹⁰²

During the quarter, USAID continued to support all three countries' IPC activities by mentoring health staff, observing health facilities' IPC protocols, and ensuring availability of personnel protective equipment.¹⁰³

- In Guinea, USAID stated that it inventoried the country's IPC material and reported that 89 percent of commodities were available in all health facilities; out-of-stock commodities included liquid soap, safety boxes, dextrose IV fluids, and swab collection kits.¹⁰⁴ In addition, USAID reported training 10 logisticians working for the national Pharmacie Central de Guinea on good storage and distribution practices to ensure rapid response in future epidemic outbreaks or emergencies.¹⁰⁵ By the end of the quarter, USAID observed IPC practices at 108 health facilities, using a standardized checklist to identify and close any gaps.¹⁰⁶

- In Liberia, USAID stated that it distributed essential medicines to 77 targeted facilities with 97 percent distribution coverage and provided technical support for a comprehensive stock count for all commodities in the National Drug Service warehouses.¹⁰⁷ USAID also reported distributing 884,550 doses of routine immunization vaccines to all 15 counties in the country.¹⁰⁸ In response to a measles outbreak in Liberia during the quarter, USAID reported vaccinating over 300 children.¹⁰⁹
- In Sierra Leone, USAID trained 222 non-clinical staff on IPC.¹¹⁰

GOVERNANCE AND ECONOMIC CRISIS MITIGATION

On June 30, 2016, the Government of Liberia reassumed the country's full security responsibilities, 13 years after the country's civil war ended and the UN Mission in Liberia took over these responsibilities.¹¹¹ Also during the quarter, the International Monetary Fund (IMF) released updated economic projections for Guinea, Liberia, and Sierra Leone as they continued to recover from the EVD outbreak. For 2016, IMF projected 3.7 percent growth in gross domestic product in Guinea, 2.5 percent in Liberia, and 4.3 percent in Sierra Leone.¹¹²

Related USAID governance and economic support activities during the quarter included supporting private sector partnerships and improving school facilities. USAID reported that it was allocated \$10 million from the Global Development Alliance Process to support private sector partnerships for Ebola recovery in Guinea, Liberia, and Sierra Leone.¹¹³ USAID also reported that it received 115 partnership proposals, had made selections, and was formalizing partnerships with private sector companies.¹¹⁴ The USAID Mission in Liberia further reported that it had amended its grant with UNICEF during the quarter to allow for the construction of latrine facilities at 120 schools, thereby increasing access to water, hygiene, and sanitation.¹¹⁵

INNOVATION AND COMMUNICATION TECHNOLOGY

The USAID-funded MEASURE Evaluation project to strengthen health information systems (HIS) in Guinea, Liberia, and Sierra Leone concluded during the quarter.¹¹⁶ USAID reported that efforts to strengthen HIS will continue through longer-term health systems strengthening projects and in collaboration with other donors.¹¹⁷ For example in Liberia, USAID continued supporting a strategic information advisor in the Ministry of Health as part of USAID Mission's Collaborative Support for Health program.¹¹⁸

USAID also supported 14 innovations under the Fighting Ebola Grand Challenge.¹¹⁹ For example, USAID reported that the Liberian Ministry of Health used mHero—an open source tool that enables two-way, real-time communication with health workers—to reach approximately 7,729 health workers as of the end of the quarter.¹²⁰ In addition, 12 new communications campaigns were launched via mHero that supported the priorities of the Ministry of Health, such as confirming the stock levels of drugs at health clinics in preparation for malaria season.¹²¹

In addition, USAID reported that it is partnering with Dalberg's Design Impact Group to better

understand how mHero information can support health workers and is working with implementing partners on integrating mHero into their service delivery programs.¹²² According to USAID, challenges to implementing mHero included misunderstanding about the tool's open source nature in Guinea, lack of service awareness in Liberia, and significant turnover of Ministry of Health staff in Sierra Leone.¹²³ To address these challenges, USAID reported that IntraHealth, mHero's developer, worked to overcome the misperception in Guinea and built new relationships in Sierra Leone, while the new public relations team in the Liberian Ministry of Health was identified as an advocate to raise awareness and answer questions.¹²⁴

During the reporting period, three Fighting Ebola Grand Challenge innovators tested their innovations in the field. Highlight, a colorized bleach additive by a team from Columbia University, was tested at Ebola screening and referral units and demonstrated in local hospitals in Guinea in June 2016.¹²⁵ A Johns Hopkins University team developed personal protective equipment and tested it in Liberia, while Shift Labs tested its battery powered, low-cost drip monitor, DripAssist, in Haiti and South Sudan.¹²⁶



Healthcare worker being sprayed with Highlight-enhanced calcium hypochlorite at International Medical Corps' Simulation Site in Conakry, Guinea. (Source: KinnoS, June 3, 2016)

U.S. Government Efforts to Strengthen Global Health Security

The fourth component of the U.S. Ebola response and preparedness strategy aims to strengthen global health security infrastructure in West Africa and other regions to enable countries to prevent, detect, and respond rapidly and effectively to health threats, like EVD.¹²⁷ During the quarter, USAID's Ebola preparedness support in Africa included public awareness, community engagement, epidemiological surveillance, and IPC activities.¹²⁸

- In Benin, USAID reported supporting activities to increase public awareness about Ebola and other hemorrhagic fevers to communities via peer educators, community mobilizers, radio programs, and television news.¹²⁹ In addition, USAID partner Management Science for Health assisted the Ministry of Health in organizing commodities quantification workshops, and improving commodity management, storage, and logistics.¹³⁰
- In Cote D'Ivoire, USAID reported supporting the broadcasts of Ebola awareness messages on eight local radio stations and the training for 35 health workers on epidemiological surveillance, community data collection, and disease notification tools.¹³¹
- In Mali, USAID stated that its partner Management Sciences for Health helped the Ebola Task Force link rapid situation analysis and needs assessment activity to improve operations.¹³²

In addition to Ebola preparedness activities, the U.S. Government also focused on building country capacity to prevent, detect, and respond to emerging pandemic threats as part of the Global Health Security Agenda (GHSA).¹³³ Interagency teams comprised of CDC, DoD, DOS, and USAID assisted host governments in developing work plans and 5-year strategic roadmaps that align with their health sector strategic plans.¹³⁴ According to CDC, during the quarter, the initial 17 countries supported by the U.S. Government achieved progress towards the GHSA action packages, while GHSA planning was underway in 14 additional countries and the Caribbean Community.¹³⁵

CDC reported that its global health strengthening activities focused on improving public health infrastructure for countries to rapidly detect, prevent, and respond to infectious disease threats.¹³⁶ In Guinea, CDC's GHSA activities included providing technical assistance to implement integrated disease surveillance and response, while in Liberia, CDC trained students in its Field Epidemiology Training Program and supported efforts to improve diagnostics capability in the country to include other diseases, such as Lassa Fever, Yellow Fever, and cholera.¹³⁷

USAID stated that its global health strengthening activities are implemented through the Emerging Pandemic Threat program and its PREDICT, Preparedness and Response, and One Health Workforce projects.¹³⁸ During the quarter, USAID's global health security projects

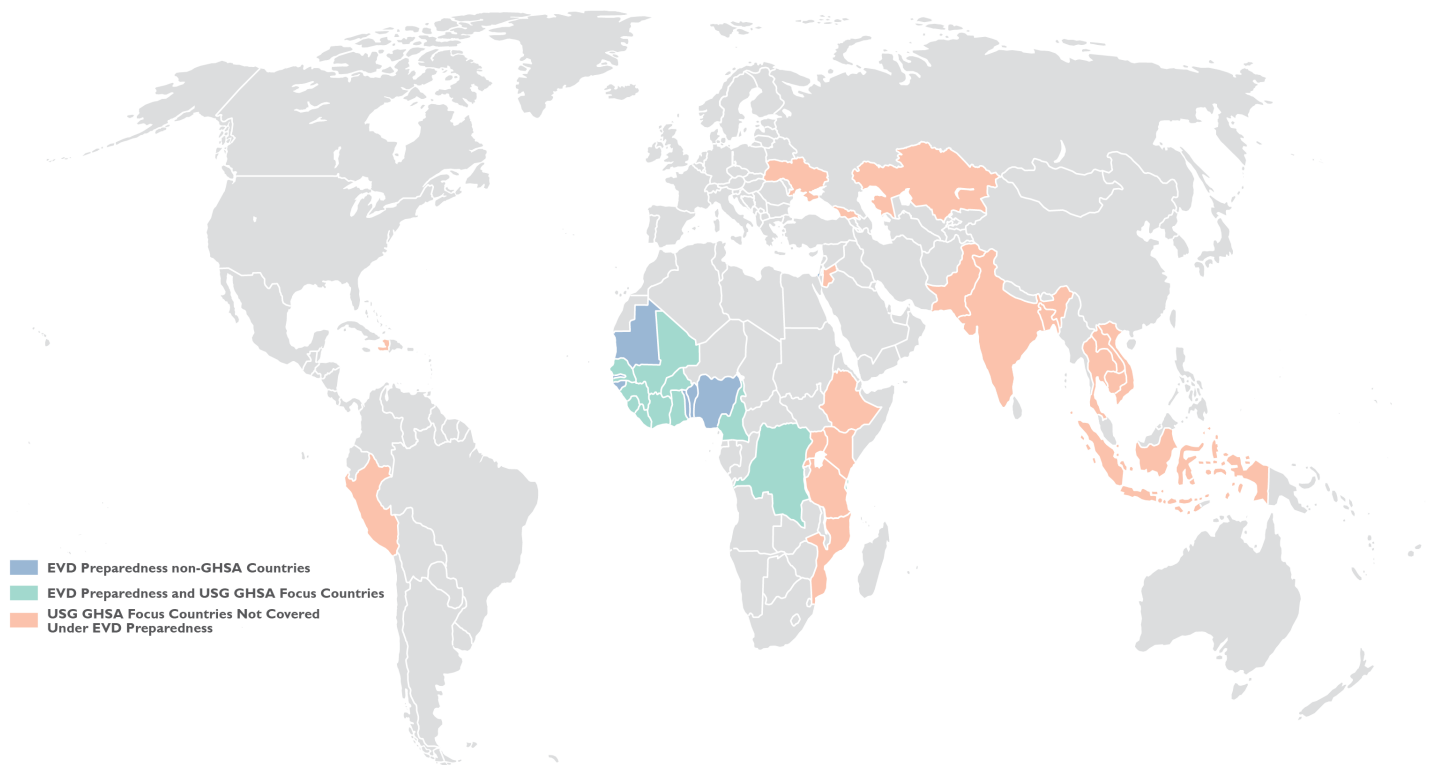


Figure 5. Map of EVD Preparedness and GHSA Countries for U.S. Government Support. (Source: USAID, 2016)

supported early detection of health threats to enable countries to better prevent and respond to avoidable epidemics.¹³⁹

- In conjunction with CDC, PREDICT supported a monkeypox surveillance workshop in Cameroon in response to a monkeypox virus outbreak in chimpanzees.¹⁴⁰
- PREDICT contributed personal protective equipment to the Government of Cameroon in June 2016 to support response efforts to the H5N1 avian influenza outbreak in the country, which caused over 15,000 bird mortalities by the end of May 2016.¹⁴¹
- PREDICT project made progress in conducting EVD surveillance in host animals in West Africa. For example in Liberia, the national Forest Development Authority provided official permission for the PREDICT team to sample wildlife populations, while in Sierra Leone, the team collected samples from 400 animals, including bats, dogs, and pigs, for the Ebola Host Project.¹⁴²
- The Secretary General of Agriculture, Fishery and Livestock in the Democratic Republic of Congo requested PREDICT assistance in investigating a die-off of animals that started in January 2016.¹⁴³ According to USAID, the PREDICT team visited affected villages and collected animal samples for pending analysis.¹⁴⁴

In addition, in Tanzania, USAID reported assisting with the One Health Strategic Plan 2015-2020, a new policy document that was signed during the quarter to ensure a coordinated response to a potential disease outbreak.¹⁴⁵

ZIKA VIRUS: A NEW THREAT

On February 1, 2016, the WHO Director-General declared the Zika virus outbreak a “public health emergency of international concern”.¹⁴⁶ WHO reported that since 2015, 48 countries had experienced their first outbreak of the Zika virus, which according to WHO, is primarily transmitted to people by infected mosquitoes, but can also be transmitted person-to-person through sexual contact.¹⁴⁷ CDC and WHO reported that the virus is associated with microcephaly—where a baby’s head is smaller than expected—and other birth defects in infants.¹⁴⁸ In adults, the virus can cause Guillan-Barré syndrome—a rare condition in which a person’s immune system damages nerve cells—and other neurologic conditions, according to WHO.¹⁴⁹

On April 6, 2016, the White House identified \$589 million that could be reprogrammed for Zika response efforts, including redirecting up to \$510 million in existing Ebola funds from HHS and USAID.¹⁵⁰ Two days later, USAID notified Congress of its intent to redirect \$295 million from FY 2015 unobligated Ebola Economic Support Funds for Zika response efforts.¹⁵¹ According to USAID, since the funds came from unplanned and unprogrammed Ebola funds, the redirection of funds would not impact its Ebola response, preparedness, and recovery efforts.¹⁵²

The Congressional Research Service reported that of the \$295 million from USAID Ebola funds, \$137 million was redirected for USAID’s Zika response activities, and \$158 million was to be transferred to CDC for its Zika (\$78 million) and Ebola (\$80 million) response activities.¹⁵³ HHS officials reported that CDC repurposed \$300 million for Zika domestic and international response efforts, including \$148 million from CDC’s Ebola balances. According to HHS officials, \$130 million of the repurposed funds has been obligated by CDC for Zika response, as of July 31, 2016.¹⁵⁴ USAID reported \$91.1 million in obligations for Zika activities by the end of the reporting period.¹⁵⁵ According to USAID, its partners in Latin America and the Caribbean are supporting behavior change communication activities to reduce the risk of infections, especially in pregnant women, and providing service delivery activities to affected individuals and families.¹⁵⁶

USAID cited several lessons learned from its EVD outbreak response that informed its response to the Zika virus outbreak. According to USAID, coordination across

U.S. Government agencies and with international organizations and country governments minimizes duplication of response efforts, addresses response gaps, and enables course corrections.¹⁵⁷ Additionally, the rapid sharing of information with partners enables activities to be focused and effective.¹⁵⁸ USAID also stated the necessity for effective risk communication and community engagement activities at the start of and throughout the public health emergency for disease control to be successful.¹⁵⁹ Lastly, USAID reported that effective response efforts depend on the cooperation and political will of host country government and international

Assessments of EVD Response Efforts

U.S. Government agencies with major roles in the international EVD response assessed their response efforts in order to identify best practices and lessons learned that could be applied to future international health crises. In September 2015, USAID's OFDA reported its internal assessment of its response to the EVD outbreak, which included several top-priority recommendations:

- Improve catastrophic disaster planning for interagency responses;
- Clarify the division of labor and the criteria that trigger OFDA's involvement in responding to epidemics overseas;
- Support institutional changes within the UN to improve multi-donor response coordination in the future; and
- Communicate lessons learned from the UN Mission for Ebola Emergency Response and the humanitarian framework for the EVD response.¹⁶¹

USAID's Food for Peace Office reported that an after action review of its Ebola response effort was being conducted during the quarter.¹⁶² USAID's Global Development Lab was finalizing its report on the use of digital technologies during the response, which it plans to post on the Global Innovation Exchange website when the report is finished.¹⁶³

CDC reported that a formal internal after action review was currently under development during the quarter and that it anticipated finalizing the review later this year.¹⁶⁴ In June 2016, an external report commissioned by HHS, the Report of the Independent Panel on the U.S. Department of Health and Human Services Ebola Response, was published.¹⁶⁵ The panel reviewed HHS' international and domestic responses, and made eight overall recommendations, four of which related to international response:

- Assist other countries in strengthening their public health and medical care infrastructure and response capabilities;

- Develop and finalize a U.S. Government framework for multi-agency international response;
- Determine whether a mobile force of medical personnel to respond to international public health threats should be maintained; and
- Designate responsibility for the coordination of Department-wide response efforts to public health threats with domestic and international elements.¹⁶⁶

In response, HHS developed a plan to improve its preparedness for and response to future urgent public health threats.¹⁶⁷ Published in June 2016, the U.S. Department of Health and Human Services Ebola Response Improvement Plan contains 30 improvement actions in six areas:

1. Global Health Security and Coordination with International Partners
2. Incident Management and Operational Coordination
3. Public Health and Healthcare Response
4. Risk Communication
5. Medical Countermeasures
6. Response Funding¹⁶⁸



*USAID team inspecting a health center under renovation in Forecariah, Guinea.
(Source: USAID OIG, June 13, 2016)*

The plan identified the HHS division responsible for each action, with HHS's Office of the Assistant Secretary for Preparedness and Response having responsibility for monitoring and coordinating the plan's overall implementation.¹⁶⁹ For the next year, HHS will publish semi-annual progress reports of the plan's implementation.¹⁷⁰

Oversight Activities

Although requirements for oversight coordination and reporting under Section 8L of the Inspector General Act of 1978, as amended, concluded at the end of FY2015, the OIGs for DoD, DOS, HHS and USAID plan to continue to work together, along with DHS OIG and the Government Accountability Office (GAO), to provide coordinated oversight of international Ebola response and preparedness efforts. HHS OIG and USAID OIG continued to provide quarterly reporting on the progress of their respective agencies' efforts, focusing to a greater extent on oversight activities. This is the last joint HHS OIG and USAID OIG quarterly report on U.S. Government international Ebola activities.

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT OFFICE OF THE INSPECTOR GENERAL

USAID OIG has five audits underway that relate to USAID's Ebola response and recovery efforts. This work is being conducted by the regional Inspector General office in Dakar, Senegal, and by the Performance Audits Division based in Washington, D.C.

- **Audit of USAID's Awards for the Ebola Response.** This audit will determine whether the acquisition and assistance instruments USAID chose were suitable for the Ebola response, and whether USAID made and modified the awards appropriately for implementing USAID's Ebola response strategy.
- **Audit of USAID/OFDA Funded Management and Utilization of Ebola Treatment Units and Community Care Centers in Liberia and Sierra Leone.** This audit will assess USAID/OFDA's management and use of Ebola treatment units and community care centers to support host country government needs. One of the primary causes for EVD infection in Liberia, Sierra Leone, and Guinea was the lack of adequate healthcare systems. Most of the EVD-affected areas did not have health facilities to treat patients. In addition, existing hospitals did not have enough beds or medical supplies. Part of U.S. Government funding assisted Liberia with the construction of temporary and permanent structures to treat Ebola cases.
- **Audit of USAID/OFDA's Provision of Medical Commodities in Response to the Ebola Outbreak.** This audit will determine 1) if USAID/OFDA effectively assessed medical commodity needs to respond to the Ebola outbreak in Guinea, Liberia, and Sierra Leone; 2) if USAID/OFDA provided adequate oversight of the medical commodities it funded; and 3) what factors affected USAID/OFDA's ability to provide the medical commodities.



*USAID-supported Ebola treatment unit, managed by the French Red Cross, on standby in Forecariah, Guinea.
(Source: USAID OIG, June 13, 2016)*

- **Audit of Selected USAID/OFDA-Funded Training of Healthcare Workers in Ebola Affected Countries.** This audit will determine the extent to which USAID/OFDA achieved its goal to train and prepare healthcare workers in preventing the spread of Ebola. The audit covers six implementers in Liberia and Sierra Leone that provided training in FY 2015 on infection prevention and control practices to government officials and healthcare workers.
- **Audit of USAID’s Preparedness for Responding to International Public Health Emergencies.** This audit will determine how USAID’s experience managing and coordinating the Ebola response prepared it for future public health emergencies, if USAID established processes for managing and coordinating responses, and identify other factors that may influence USAID’s ability to respond to future international public health emergencies.

For its financial audit work, USAID OIG intends to add discrete steps to its future Government Management Reform Act work to test financial data from a sample of Ebola response, recovery, and preparedness awards. The results of this work will be reported in a separate product with a specific focus on testing awards related to Ebola response, recovery, and preparedness efforts.



Ebola isolation unit at the Well Baby Clinic in Buchanan, Liberia. (Source: USAID OIG, June 6, 2016)

Prior to this reporting period, USAID OIG issued three audit reports of note:

- **Audit of USAID/Guinea's Systems for Ensuring Appropriate Audit Oversight of Funded Programs** (7-675-15-003-P), November 6, 2014. USAID OIG determined that USAID/Guinea had not effectively managed the process for auditing its 48 programs, valued at about \$135 million, and that the mission did not (1) verify whether some audits were performed and submitted on time, (2) maintain a complete audit plan, and (3) close out expired awards on time. USAID OIG made four recommendations to improve the management of USAID/Guinea's systems for ensuring appropriate oversight of funded programs and USAID has taken final action on each of USAID OIG's four recommendations.
- **Audit of Selected Ebola-Response Activities Managed by USAID/OFDA in Liberia** (7-669-16-002-P), December 4, 2015. USAID OIG found that social mobilization and case management activities contributed to the success of Liberia's overall Ebola response. Efforts were of sufficient scale and outreach workers established relationships with leaders in affected communities. However, auditors noted that (1) the implementer's performance measures were limited and sometimes the data derived from these measures were inaccurate; (2) the implementer's controls over \$1.5 million in salary payments made in cash were questionable; and (3) OFDA did not always document program monitoring or verify reported results, or develop transition plans for key assets, such as the program vehicles valued at \$6 million. Moreover, OFDA did not formalize a handover plan for a key burial site. USAID OIG made seven recommendations and acknowledged management decisions on all recommendations and final action on one recommendation. USAID OIG disagreed with the management decisions on two recommendations.

- **Audit of Select Activities from the USAID/Food For Peace Response to the Ebola Crisis in West Africa** (Report No. 7-962-16-003-P), March 16, 2016. USAID OIG found that emergency food security programs in Guinea, Liberia, and Sierra Leone had started to help vulnerable people meet their food needs and recover from the Ebola crisis. However, emergency programs were on average delayed three months due to problems with the award approval process, recruiting staff, and coordinating with local partners. The delays had several negative effects, and much of the time implementing partners intended to spend providing food assistance was lost. USAID made management decisions on all nine of OIG's recommendations. However, OIG disagreed with three management decisions. USAID took final action on all recommendations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES OFFICE OF INSPECTOR GENERAL

HHS OIG has an ongoing Office of Evaluations and Inspections review related to EVD. Its Office of Audit Services began two audits of international activities and will also conduct financial verification related to the agency's EVD expenditures. As of June 30, 2016, HHS OIG had three reviews underway.¹⁷¹

- **Review of Hospital Preparedness and Response to Emerging Infectious Disease Threats.** Hospitals serve an important community role in preparing for and responding to public health threats from emerging infectious diseases. Several divisions provide guidance, oversight, and technical assistance to hospitals in fulfilling this role, including CDC, the Centers for Medicare & Medicaid Services, and ASPR. The objectives of this evaluation are to examine HHS guidance, assistance, and oversight of hospital preparedness and response to emerging infectious disease threats; and to determine the current status of and barriers to hospital preparedness at a nationally projectable sample of hospitals. The evaluation plan has been completed and the status of the evaluation is ongoing.¹⁷²
- **Review of Ebola Coordination of Roles and Responsibilities and Operational Effectiveness.** After the first cases of Ebola were reported in West Africa in March 2014, the United States mounted a Government response to contain and eliminate the epidemic at its source. HHS launched an effort that encompassed CDC, ASPR, NIH, FDA, and the U.S. Public Health Service (PHS) Commissioned Corps. HHS OIG will focus this review on the preparation and coordination of its Ebola response activities within each of its divisions. In addition, HHS OIG will review how HHS's Ebola response efforts interfaced within the U.S. government's strategic Ebola response effort.

The objectives of this audit are to determine: (1) how effective and efficient HHS planned and coordinated strategic decisions related to the Department's Ebola response efforts and (2) how HHS's Ebola response activities were planned and coordinated with other U.S. government agencies.¹⁷³

- **Review of the Centers for Disease Control and Prevention’s Ebola-Related Awards.** The Consolidated and Further Continuing Appropriations Act, 2015 (P.L. 113-235) provided \$2.7 billion in emergency funding to HHS for Ebola preparedness and response activities. Of this total, \$1.771 billion was allocated to CDC “for ‘CDC-Wide activities and program support,’ ...to remain available until September 30, 2019, to prevent, prepare for, and respond to Ebola domestically and internationally.” CDC specifically identified \$1.2 billion for its international response efforts, with \$603 million for international Ebola response and preparedness activities in the current three epidemic and high priority countries, including neighboring countries.

The objective of this audit will be to determine whether CDC awarded Ebola related funds in FY 2015 in compliance with federal and departmental regulations.¹⁷⁴

DEPARTMENT OF DEFENSE OFFICE OF INSPECTOR GENERAL

DoD OIG released one EVD-related audit during this past year.

- The objective of the audit of **Army Needs to Improve Contract Oversight for the Logistics Civil Augmentation Program's Task Orders** (Report No. DODIG-2016-004) was to determine whether the army was providing sufficient contract oversight for Logistics Civil Augmentation Program (LOGCAP) task orders issued to support Operation United Assistance. Specifically, DoD OIG determined whether: the Army appointed an adequate number of contracting officer's representatives (CORs); CORs were appropriately trained and appointed; and CORs had sufficient quality assurance plans. Although the army appointed an adequate number of CORs to oversee the task order, the Army did not ensure the CORs provided sufficient oversight for the \$33.8 million LOGCAP task order issued to support Operation United Assistance.¹⁷⁵

DoD OIG recommended the commander, 414th Contracting Support Brigade, principal assistant responsible for contracting (PARC) develop procedures that require experienced CORs be identified before contractor work begins; the CORs to be trained before deployment; and CORs to be provided adequate guidance to perform their duties. DoD OIG further recommended the commander develop procedures that outline alternate contractor surveillance methods if the CORs cannot perform contractor surveillance until they are on site. DoD OIG also recommended the executive director and PARC for the Army Contracting Command-Rock Island issue guidance that requires all PCOs to create a Quality Assurance Surveillance Plan specific for each LOGCAP-issued task order.¹⁷⁶

DEPARTMENT OF STATE OIG

DOS OIG had one ongoing audit of Ebola-related activities at the end of the reporting period.

- **Audit of Aeromedical Biological Containment Evacuation Contracts Within the Office of Medical Services.** This audit will determine whether the Bureau of Administration,

Office of Logistics Management, Office of Acquisitions Management, and the Office of Medical Services properly administered and provided oversight of aeromedical biological containment evacuation contracts in accordance with acquisition regulations, and whether the Office of Medical Services received reimbursement for non-Department of State medical evacuations as required.¹⁷⁷

DEPARTMENT OF HOMELAND SECURITY (DHS) OFFICE OF INSPECTOR GENERAL

DHS OIG had one ongoing audit at the end of the reporting period.

- **Audit of DHS Pandemic Planning and Response.** This audit is to determine if DHS has implemented adequate preparedness plans to continue mission-essential functions during a pandemic.¹⁷⁸

DHS OIG released an EVD-related audit during this past year.

- The audit report, **DHS' Ebola Response Needs Better Coordination, Training, and Execution**, is one of a series related to DHS' pandemic preparedness and response. DHS OIG conducted this audit on DHS' response to the Ebola outbreak to determine whether DHS effectively implemented DHS' screening measures. Overall, DHS did not ensure sufficient coordination, adequate training, and consistent screening during its Ebola response. As a result, some passengers with a risk of Ebola may have entered the U.S. without adequate screening and the DHS workforce performing the response was not always appropriately protected. DHS OIG made ten recommendations that should strengthen program management, performance, and oversight. The Department concurred with all ten recommendations and has initiated corrective actions that should improve the effectiveness of the Department's response to Ebola when implemented.¹⁷⁹

GOVERNMENT ACCOUNTABILITY OFFICE (GAO)

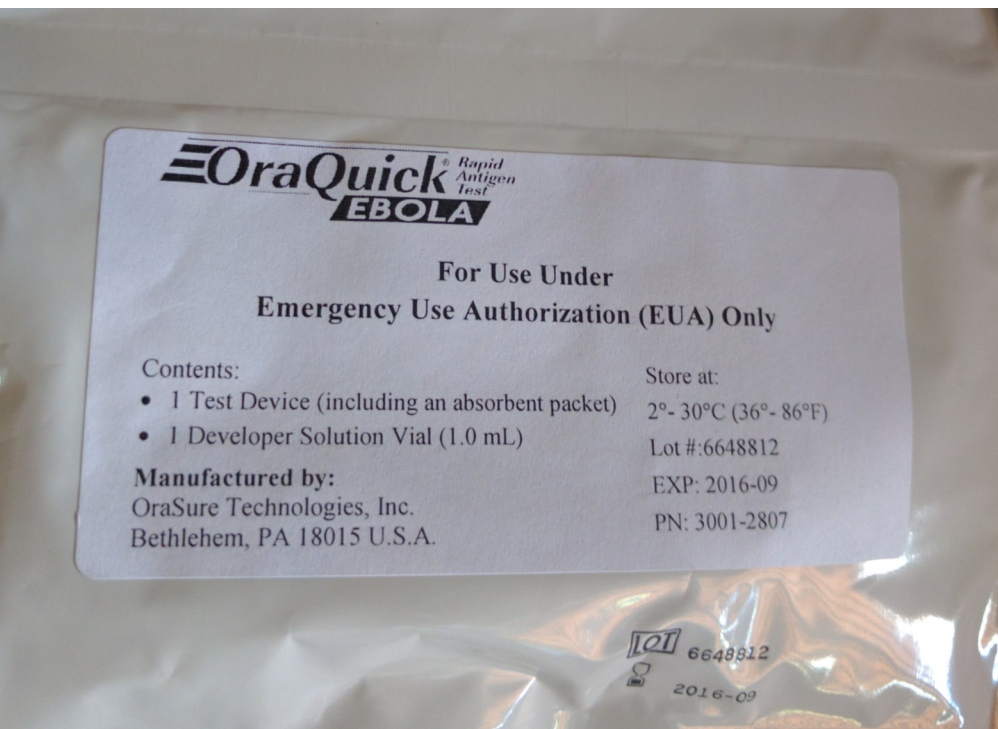
GAO oversight activities are currently being conducted under section 9005 of the Consolidated and Further Continuing Appropriations Act, 2015 (P.L. 113-235, December 16, 2014), which provides for GAO oversight of funds appropriated to USAID and DOS for Ebola response and preparedness. GAO's work will review DOS and USAID activities to prevent, prepare for, and respond to the 2014 EVD outbreak in West Africa.¹⁸⁰

During the reporting period, GAO had one related engagement under way.¹⁸¹

- **Review of Ebola Response and Preparedness.** The ongoing review is examining the status of funding that USAID and State have used to respond to the outbreak.

INVESTIGATIONS

In addition to audits, evaluations, and reviews of U.S. Government activities associated with Ebola preparedness and response, the oversight community conducts investigations into corresponding allegations. Since the beginning of the Ebola response, five cases have been opened and four cases closed. There is one related USAID OIG investigation that has remained ongoing at the end of the quarter. Furthermore, USAID OIG has conducted 25 fraud awareness briefings to more than 500 attendees since the beginning of the response to the Ebola outbreak.



Ebola rapid diagnostic test kit at CMC Ratoma Hospital. (Source: USAID OIG, June 10, 2016)

Appendix A: Selected Ebola Diagnostic Tools and Medical Countermeasures Supported by U.S. Government Agencies

Product	U.S. Agencies	Status
Diagnostic Tools		
CDC Ebola Virus NP Real-time RT-PCR Assay By CDC	CDC	Authorized for use in the United States by FDA under Emergency Use Authorization.
CDC Ebola Virus VP40 Real-time RT-PCR Assay By CDC	CDC	Authorized for use in the United States by FDA under Emergency Use Authorization.
EZ1 Real-time RT-PCR Assay By DoD	DoD	Authorized for use in the United States by FDA under Emergency Use Authorization.
Next Generation Diagnostics System Increment 1 Film Array BioThreat-Ebola (BT-E) Assay By BioFire Defense	DoD Joint Science and Technology Office, NIH/ National Institute of Allergy and Infectious Diseases (NIAID)	Authorized for use in the United States by FDA under Emergency Use Authorization.
OraQuick® By OraSure Technologies	ASPR/BARDA, CDC	Authorized for use in the United States by FDA under Emergency Use Authorization. Pilot projects in Guinea, Liberia, and Sierra Leone.
ReEBOV™ Antigen Rapid Test By Corgenix	NIH/NIAID	Authorized for use in the United States by FDA under Emergency Use Authorization.
Xpert Ebola Assay By Cepheid	NIH/NIAID	Authorized for use in the United States by FDA under Emergency Use Authorization.
Vaccines		
cAd3-ZEBOV By GlaxoSmithKline and NIAID	ASPR/BARDA, NIH/NIAID	Results from the PREVAIL I, Phase II study were reported in February 2016 while immunogenicity results were being evaluated. According to NIAID, results from the study indicated that the cAd3-ZEBOV vaccine appeared to be safe and was well tolerated.
rVSV-ZEBOV By NewLink Genetics and Merck Vaccines USA	ASPR/BARDA, CDC, DoD Joint Science and Technology Office, NIH/NIAID	Results from the PREVAIL I, Phase II study were reported in February 2016 while immunogenicity results and data from the STRIVE study were being evaluated. According to NIAID, results from the PREVAIL I study indicated that the rVSV-ZEBOV vaccine appeared to be safe and was well tolerated. Phase III consistency trial funded by ASPR was underway.

Ad26.Filo prime and MVA-BN Filo boost By Johnson & Johnson and Bavarian Nordic	NIH/NIAID	Phase I clinical trial anticipated to begin in 2016.
Ad26.ZEBOV prime and MVA-BN Filo boost By Johnson & Johnson and Bavarian Nordic	ASPR/BARDA, NIH/NIAID	Phase I trial underway in the United States. Exploring expanded PREVAIL I Phase II safety and immunogenicity study in comparison to rVSV-ZEBOV in 2016. ASPR/BARDA reported that it is supporting manufacturing activities to make both vaccines available for clinical trials.
HPIV3/EboGP By NIAID	NIH/NIAID	Phase I clinical trial was underway.
Rabies-EBOV By NIAID and Thomas Jefferson University	NIH/NIAID	Phase I clinical trial was anticipated to begin in 2016.
rVSVN4CT1 EBOV By Profectus	ASPR/BARDA, NIH/NIAID	Phase I clinical trial to evaluate safety and immune response of monovalent (Zaire Ebola) vaccine underway. According to ASPR, DoD continued supporting the development of the trivalent (Marburg, Sudan Ebola, and Zaire Ebola) vaccine candidate . In addition, NIH/NIAID provided grant support for preclinical development of the trivalent vaccine.

Therapeutic Treatments

ZMapp By Mapp Biopharmaceuticals	ASPR/BARDA, DoD Joint Science and Technology Office, NIH/NIAID	Enrollment in the PREVAIL II trial to compare optimized standard of care against optimized standard of care plus ZMapp was halted in February 2016 due to a lack of EVD cases. According to NIAID, preliminary PREVAIL II results suggest potential benefit but due to low enrollment, statistical significance could not be achieved. ASPR/BARDA reported that it is supporting manufacturing of ZMapp to ensure product availability in the U.S. and West Africa.
BCX-4430 By Biocryst	BCX-4430 By Biocryst	Phase I trial using intramuscular delivery was fully enrolled. Phase I trial using intravenous delivery anticipated to begin in 2016.
REGN3479-70-71 By Regeneron	REGN3479-70-71 By Regeneron	Phase I clinical study to evaluate safety started in May 2016.
GS-5734 By Gilead Sciences, Inc.	GS-5734 By Gilead Sciences, Inc.	PREVAIL IV, Phase II trial underway to assess safety and efficacy including clearance of Ebola virus RNA from semen in male Ebola survivors with persistent Ebola virus RNA in semen.

Sources: DoD and HHS

Appendix B: USAID Ebola-related Programs by Pillar and Geographical Focus as of June 30, 2016

The table contains Ebola response and preparedness program information provided by USAID. In addition to information regarding the strategic and geographic focus of program activities, it includes information on the USAID unit associated with the program, available program description information, and data on amounts that USAID has committed and obligated to particular programs and activities. USAID-funded programs for which complete award and period of performance information were unavailable are not included in the table.

USAID Bureau/Office	Program Description	Implementing Partner	Committed (\$)	Obligated (\$)	Period of Performance	
					Start Date	End Date
Control the Outbreak						
Regional						
Food for Peace	Provide in-kind food assistance to Ebola patients, survivors, contacts, and quarantined communities	World Food Program	34,567,229	34,567,229	9/9/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provision of personal protective equipment (PPE) for medical workers	Air Force Contract Augmentation Program	798,888	798,888	1/15/2005	6/14/2015
Office of U.S. Foreign Disaster Assistance	Support for the international Ebola outbreak and response	African Union	4,986,157	4,986,157	9/28/2014	6/30/2015
Office of U.S. Foreign Disaster Assistance	Support for the Global Information Management Officer Rapid Deployment Program	IMMAP	385,990	385,990	10/1/2014	9/30/2016
Office of U.S. Foreign Disaster Assistance	Support border management activities in Guinea-Bissau	International Organization for Migration	407,117	407,117	7/1/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Fund third-party study of the international Ebola outbreak and response	Overseas Development Institute	30,011	30,011	6/28/2013	6/28/2016
Office of U.S. Foreign Disaster Assistance	Support for research study on disinfection to prevent Ebola transmission	Tufts University	558,504	558,504	6/1/2015	11/30/2016

Office of U.S. Foreign Disaster Assistance	Support rapid and efficient movement of humanitarian personnel, medical supplies and equipment, and other essential humanitarian cargo to multiple remote locations within the affected countries	UN Humanitarian Air Service	250,000	250,000	8/20/2014	10/19/2014
Office of U.S. Foreign Disaster Assistance	Provision of supplies (including hygiene kits, soap, bleach, gloves, and masks), and distribution of information on Ebola to the general public and health workers	UN Children's Fund (UNICEF)	600,000	600,000	6/26/2013	6/30/2015
Office of U.S. Foreign Disaster Assistance	Support to strengthen evidence and practice on mental health and psychosocial activities	UN Children's Fund (UNICEF)	500,000	500,000	8/14/2015	7/31/2016
Office of U.S. Foreign Disaster Assistance	Provide coordination support to the Ebola response	UN Office for the Coordination of Humanitarian Affairs	4,042,536	4,042,536	1/1/2015	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support for the coordination of agencies involved in the response at international, national, local, and community levels	World Health Organization	477,712	477,712	1/1/2015	3/31/2016
Office of U.S. Foreign Disaster Assistance	Provide support to the UN Humanitarian Air Support for air transport in Guinea, Liberia and Sierra Leone	World Food Program	250,000	250,000	8/20/2014	10/19/2014
Guinea						
Office of U.S. Foreign Disaster Assistance	Support for contact tracing efforts and follow up with Ebola survivors	Accion Contra el Hambre	1,681,043	1,681,043	8/1/2015	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support sanitation and hygiene activities, including the provision of 900,000 soap bars to 50,000 households that received hand-washing devices, social mobilization and building community awareness to improve hygiene practices, contact tracing, and surveillance activities	Center for International Studies and Cooperation	1,404,928	1,404,928	7/30/2015	4/29/2016

Office of U.S. Foreign Disaster Assistance	Infection control training and providing PPE and facilities kits to non-EVD health facilities	Catholic Relief Services	4,041,621	4,041,621	10/20/2014	7/21/2015
Office of U.S. Foreign Disaster Assistance	Support training of health facility staff in infection prevention and control (IPC) and triage protocols along with provision of basic materials to improve hygiene and adherence to IPC practice	Catholic Relief Services	1,846,005	1,846,005	7/23/2015	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support social mobilization, surveillance, and contact tracing activities	ChildFund	1,500,000	1,500,000	12/1/2014	8/31/2015
Office of U.S. Foreign Disaster Assistance	Support community response planning for future Ebola outbreaks in lower Guinea through risk management and water, hygiene, and sanitation activities	Danish Refugee Council	750,000	750,000	8/15/2015	3/31/2016
Office of U.S. Foreign Disaster Assistance	Equip and staff Ebola transit center in Forecariah, Guinea	French Red Cross	4,505,445	4,505,445	12/1/2014	5/1/2016
Office of U.S. Foreign Disaster Assistance	Support outreach activities and maintain Forecariah Ebola treatment unit (ETU) and transit center	French Red Cross	680,000	680,000	12/1/2014	5/1/2016
Office of U.S. Foreign Disaster Assistance	Support social mobilization activities with community radio stations to organize radio broadcasts to inform and sensitize the population about Ebola and contact tracing activities	Helen Keller International	1,719,455	1,719,455	12/1/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	Increase and improve IPC activities at healthcare facilities and maintain health services	JHPIEGO Corporation	2,400,000	2,400,000	4/17/2015	9/30/2015

Office of U.S. Foreign Disaster Assistance	Collaborate with the emergency operations center, Ministry of Health, and other stakeholders to reorient the overall Ebola communication and social mobilization strategy, and work with communities on Ebola messaging and dissemination	Johns Hopkins University Center for Communication Programs	114,850	114,850	4/1/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide support for safe burials, social mobilization, and training of Ebola response workers	International Federation of Red Cross and Red Crescent Societies	3,000,000	3,000,000	9/26/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Deploy and support 100 volunteers for safe burials, manage waste at isolation centers, procure and pre-position PPE kits, train volunteers on the use of PPEs, train 60 supervisors and 1,250 volunteers on EVD signs and symptoms, prevention measures and referral mechanisms	International Federation of Red Cross and Red Crescent Societies	1,000,000	1,000,000	9/26/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Establish regional Ebola coordination hub in Conakry and support for Ebola coordinator	International Federation of Red Cross and Red Crescent Societies	1,000,000	1,000,000	9/26/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Provide support for safe burials, social mobilization, and training of Ebola response workers	International Federation of Red Cross and Red Crescent Societies	999,552	999,552	9/26/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support screening and referral units at 10 hospitals, including supplies and IPC training for all hospital staff, and psychosocial support for Ebola-affected communities	International Medical Corps	14,854,760	14,854,760	2/1/2015	4/30/2016
Office of U.S. Foreign Disaster Assistance	Support rapid response capacity in Guinea	International Medical Corps	3,106,040	3,106,040	5/1/2016	12/31/2016

Office of U.S. Foreign Disaster Assistance	Support production of daily radio show in five languages and expand geographical reach to additional audiences in border areas with Ebola-related messages	Internews	1,200,000	1,200,000	10/17/2014	5/31/2016
Office of U.S. Foreign Disaster Assistance	Provide training for radio journalists and local media on how to report on the humanitarian response to the Ebola outbreak	Internews	799,846	799,846	10/17/2014	5/31/2016
Office of U.S. Foreign Disaster Assistance	Construct and support 18 provincial emergency operations centers to strengthen command and control of the Ebola response	International Organization for Migration	3,492,220	3,492,220	12/19/2014	6/30/2016
Office of U.S. Foreign Disaster Assistance	Rehabilitate and equip provincial emergency operations centers in Guinea	International Organization for Migration	2,000,000	2,000,000	12/19/2014	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support reconstruction and provide logistics expertise to retrofit up to three additional provincial emergency operations centers	International Organization for Migration	300,000	300,000	12/19/2014	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support non-governmental organizations to build the capacity and resilience of Guinean communities throughout Ebola prevention, response and recovery phases	International Organization for Migration	1,500,000	1,500,000	5/1/2015	1/31/2016
Office of U.S. Foreign Disaster Assistance	Manage disease surveillance activities along the borders with Liberia and Sierra Leone, including alert, case management and referral mechanisms	International Organization for Migration	5,475,000	5,475,000	5/22/2015	8/31/2016
Office of U.S. Foreign Disaster Assistance	Provide IPC training for health workers, distribute IPC kits at health facilities, and at community level, provide hygiene promotion knowledge and case detection skills	Premiere Urgence	1,295,000	1,295,000	9/1/2015	6/30/2016

Office of U.S. Foreign Disaster Assistance	Support efforts to enable a safer re-opening of Guinea's schools through the provision of hand washing stations, with hygiene materials	Plan International	1,083,664	1,083,664	9/15/2014	6/30/2015
Office of U.S. Foreign Disaster Assistance	Support social mobilization activities and improve contact tracing	Plan International	1,028,074	1,028,074	9/15/2014	6/30/2015
Office of U.S. Foreign Disaster Assistance	Support activities to increase community awareness and ability to conduct contact tracing, active surveillance, and infection control	Relief International	4,000,000	4,000,000	11/10/2014	9/30/2015
Office of U.S. Foreign Disaster Assistance	Improve the Ministry of Health's capacity to respond to Ebola through contact tracing, surveillance system strengthening, and logistical support	Save the Children	1,499,203	1,499,203	11/1/2014	8/31/2015
Office of U.S. Foreign Disaster Assistance	Provide hygiene behavior and health promotion activities to vulnerable populations in Ebola affected areas	Terre Des Hommes	875,000	875,000	12/15/2014	11/30/2015
Office of U.S. Foreign Disaster Assistance	Ensure availability of hand washing kits in schools in 18 prefectures	UN Children's Fund (UNICEF)	1,000,000	1,000,000	12/18/2014	8/31/2015
Office of U.S. Foreign Disaster Assistance	Ensure availability of hand washing kits in schools in 18 prefectures	UN Children's Fund (UNICEF)	4,555,047	4,555,047	3/20/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide protective environment for orphans and children affected by Ebola, psychosocial support to EVD affected families and communities, and social mobilization activities	UN Children's Fund (UNICEF)	5,000,400	5,000,400	3/20/2015	12/31/2015

Office of U.S. Foreign Disaster Assistance	Collaborate with the Ministry of Health to identify IPC gaps in targeted hospitals and health centers, and develop capacity building plan to ensure comprehensive IPC	Women and Health Alliance International	712,046	712,046	8/17/2015	3/31/2016
Office of U.S. Foreign Disaster Assistance	Provide logistics and supply chain capabilities to UN Mission for Ebola Emergency Response and provide of humanitarian air services and strategic airlift via UN Humanitarian Air Service	World Food Program	6,000,000	6,000,000	11/12/2014	12/31/2016
Office of U.S. Foreign Disaster Assistance	Build two Ebola treatment units	World Food Program	1,500,000	1,500,000	11/12/2014	12/31/2016
Office of U.S. Foreign Disaster Assistance	Establish a logistics staging area in Ghana, national hubs in the capitals of Guinea, Liberia, and Sierra Leone, and forward logistics bases in affected countries	World Food Program	1,000,000	1,000,000	11/12/2014	12/31/2016
Office of U.S. Foreign Disaster Assistance	Logistics support to ensure rapid response capacity	World Food Program	3,299,520	3,299,520	1/1/2016	12/31/2016
Office of U.S. Foreign Disaster Assistance	Promote healthcare worker training and adequate personal protective equipment supplies to health facilities in 10 prefectures	World Health Organization	19,626,849	19,626,849	4/1/2015	6/30/2016
Liberia						
Office of U.S. Foreign Disaster Assistance	Support for contact tracing activities in Bomi County	Action Contre La Faim	1,013,803	1,013,803	12/1/2014	7/31/2015
Office of U.S. Foreign Disaster Assistance	Provision of PPE for medical workers	Air Force Contract Augmentation Program (AFCAP)	3,075,023	3,075,023	1/1/2005	6/14/2015

Office of U.S. Foreign Disaster Assistance	Support for clinical and non-clinical management of ETU in River Gee County, Liberia	American Refugee Council	6,666,646	6,666,646	11/1/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide psychosocial and Ebola survivor support	BRAC	1,177,902	1,177,902	12/11/2014	9/10/2015
Office of U.S. Foreign Disaster Assistance	Support for social mobilization, community health education and surveillance activities in Liberia	CARE	1,652,992	1,652,992	12/3/2014	8/31/2015
Office of U.S. Foreign Disaster Assistance	Rehabilitate and construct seven community care centers (CCCs) within the Catholic Church's health-supported facilities in the Archdiocese of Monrovia	Catholic Relief Services	960,447	960,447	10/20/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support for interim care center and child protection and health services	ChildFund	3,502,025	3,502,025	12/15/2014	9/15/2015
Office of U.S. Foreign Disaster Assistance	Establish and manage 10 CCCs	CONCERN	5,422,492	5,422,492	11/1/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Deploy U.S. Public Health Service personnel to provide treatment services at the Monrovia Medical Unit	U.S. Department of Health and Human Services	128,740	128,740	10/14/2014	10/13/2015
Office of U.S. Foreign Disaster Assistance	Deploy U.S. Public Health Service personnel to staff the Monrovia Medical Unit for the first two-month rotation	U.S. Department of Health and Human Services	1,759,532	1,759,532	10/14/2014	10/13/2015
Office of U.S. Foreign Disaster Assistance	Fund U.S. Public Health Service support to the Monrovia Medical Unit	U.S. Department of Health and Human Services	1,800,000	1,800,000	10/14/2014	10/13/2015
Office of U.S. Foreign Disaster Assistance	Support for safe burial teams, oral swabbing for Ebola, cross border monitoring, and strengthen county and district health workers' capacity	Global Communities	34,039,820	34,039,820	8/13/2014	7/1/2016

Office of U.S. Foreign Disaster Assistance	Support ETU and health facilities, and decommissioning activities in Lofa, Liberia	GOAL	2,578,833	2,578,833	11/1/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	Management of Voinjama ETU and of the triage area of Voinjama's Tellewoyan Hospital	GOAL	4,702,667	4,702,667	11/1/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	ETU clinical management in Margibi County	Heart to Heart International	5,055,260	5,055,260	9/21/2014	7/31/2015
Office of U.S. Foreign Disaster Assistance	Support to IFRC's emergency appeal, including support to safe burial teams	International Federation of Red Cross and Red Crescent Societies	1,000,000	1,000,000	8/13/2014	2/28/2015
Office of U.S. Foreign Disaster Assistance	Support the operation of ETU in Bong County	International Medical Corps	4,906,604	4,906,604	8/29/2014	1/31/2016
Office of U.S. Foreign Disaster Assistance	Operate ETU in Bong County and improve screening, isolation, and referral at regular health facilities	International Medical Corps	7,824,351	7,824,351	8/29/2014	1/31/2016
Office of U.S. Foreign Disaster Assistance	Operate Bong ETU for eight months and Margibi ETU for six months	International Medical Corps	8,832,894	8,832,894	8/29/2014	1/31/2016
Office of U.S. Foreign Disaster Assistance	Train and mentor county health teams to develop capacity to respond to the reemergence of Ebola while strengthening health worker skills in the treatment of other infectious diseases	International Medical Corps	3,027,822	3,027,822	10/8/2014	4/30/2016
Office of U.S. Foreign Disaster Assistance	Support comprehensive training for Ebola response workers, including instruction for healthcare workers and response actors in operating ETUs	International Medical Corps	5,934,800	5,934,800	10/8/2014	4/30/2016
Office of U.S. Foreign Disaster Assistance	Air support for rapid response, specimen collection, and patient referral countrywide in Liberia	International Medical Corps	4,092,777	4,092,777	11/24/2014	8/23/2015

Office of U.S. Foreign Disaster Assistance	Support for the community-events based surveillance consortium in Guinea along with partners Plan International and Première Urgence Internationale	International Medical Corps	3,432,140	3,432,140	3/15/2016	9/15/2016
Office of U.S. Foreign Disaster Assistance	Support the operation of ETU and incident management system	International Organization for Migration	4,829,095	4,829,095	9/15/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide clinical management in ETUs, with support for clinical care in up to 17 ETUs as needed	International Organization for Migration	28,048,894	28,048,894	9/15/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Enhance screening and surveillance capacity at borders and in border communities in Liberia	International Organization for Migration	6,143,897	6,143,897	7/1/2015	6/30/2016
Office of U.S. Foreign Disaster Assistance	Expand and modify activities by the Montserrado Consortium, including enhanced surveillance and response capacity and efforts to reduce stress and stigma for Ebola-affected families	International Rescue Committee	4,170,584	4,170,584	9/1/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support for response organizations in Montserrado County, including contact tracing, emergency dispatch, dead body removal, and IPC monitoring visits	International Rescue Committee	4,093,690	4,093,690	9/1/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Provide clinical care to Ebola patients in Monrovia	International Rescue Committee	10,402,487	10,402,487	10/1/2014	4/30/2016
Office of U.S. Foreign Disaster Assistance	Support for Redemption Hospital	International Rescue Committee	1,695,100	1,695,100	10/1/2014	4/30/2016
Office of U.S. Foreign Disaster Assistance	Support for Ebola prevention and response activities in Montserrado	International Rescue Committee	2,969,196	2,969,196	9/1/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Restore access to gender-based violence services in Montserrado, Lofa, and Nimba counties in the context of the Ebola response	International Rescue Committee	978,397	978,397	4/1/2015	1/31/2016

Office of U.S. Foreign Disaster Assistance	Support for the Rapid Response Consortium activities, including infection prevention and control, dead body management, care and treatment, epidemiological surveillance, contact tracing, quarantine support, survivor discharge support, and coordination	International Rescue Committee	8,679,133	8,679,133	1/1/2016	12/31/2016
Office of U.S. Foreign Disaster Assistance	Train healthcare workers in IPC best practices and provide continuous supportive supervision	Jhpiego Corporation	2,814,287	2,814,287	12/9/2014	12/8/2015
Office of U.S. Foreign Disaster Assistance	Improve IPC practices through training and supportive supervision, distribute supplies and commodities, and strengthen the capacity of health actors to sustain activities	John Snow Inc.	4,068,933	4,068,933	11/6/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	Support IPC training for non-ETU healthcare workers and provision of personal protective equipment (PPEs) and supplies to health facilities	John Snow Inc.	3,164,720	3,164,720	11/6/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	Support activities that build rapid response capacity at the county level, including IPC preparedness, triage and isolation, and Ebola surveillance	Medical Teams International	681,065	681,065	12/15/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support for rapid isolation and treatment of Ebola in Bomi, Sinoe, Grand Cape Mount counties	Medical Teams International	4,021,836	4,021,836	12/15/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support for IPC and waste management training for primary healthcare facilities	MENTOR	2,327,902	2,327,902	10/10/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support for emergency infection control and case management assistance for slum communities	MENTOR	1,598,314	1,598,314	10/10/2014	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support for nationwide social mobilization campaign	Mercy Corps	12,000,000	12,000,000	9/13/2014	7/12/2015

Office of U.S. Foreign Disaster Assistance	Build public awareness of Ebola and other preventable diseases through grassroots social mobilization effort that engages civil society actors	Mercy Corps	12,000,000	12,000,000	7/11/2015	7/10/2016
Office of U.S. Foreign Disaster Assistance	Support for the non-medical management of ETUs	Pacific Architects and Engineers	75,147,354	75,147,354	10/31/2014	10/30/2015
Office of U.S. Foreign Disaster Assistance	Establish and operate an ETU and two CCCs, and train community health workers in contact tracing and surveillance activities in Grand Gedeh	Partners in Health	10,213,088	10,213,088	10/15/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Establish CCCs to provide complementary healthcare services in Montserrado, Bomi, Grand Cape Mount, and Gbarpolu counties	Plan USA	1,508,821	1,508,821	11/7/2014	11/6/2015
Office of U.S. Foreign Disaster Assistance	Support for the Rapid Ebola Awareness, Communication, and Training (REACT) program	Project Concern International	1,550,723	1,550,723	9/17/2014	6/17/2015
Office of U.S. Foreign Disaster Assistance	Construct and manage 10 CCCs in Nimba and Bong, Liberia	Project Concern International	4,128,390	4,128,390	10/29/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Operate and manage ETU in Ganta, Nimba County	Project Concern International	5,675,372	5,675,372	12/16/2014	4/30/2016
Office of U.S. Foreign Disaster Assistance	Provide health, logistics and relief commodity support for Ebola response in Lofa County and River Gee counties	Samaritan's Purse	7,782,027	7,782,027	9/16/2014	6/30/2015
Office of U.S. Foreign Disaster Assistance	Restore health services, water, hygiene, and sanitation (WASH) services, and strengthen community prevention, with a focus on EVD-affected children	Save the Children	2,357,933	2,357,933	7/8/2015	3/15/2016
Office of U.S. Foreign Disaster Assistance	Emergency relief for Ebola-affected communities in Liberia	Save the Children	8,276,263	8,276,263	9/23/2014	9/22/2015

Office of U.S. Foreign Disaster Assistance	Strengthen county-level response teams, support case management, and strengthen early warning and surveillance activities	UN Children's Fund (UNICEF)	5,658,093	5,658,093	8/20/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support the safe management of waste at health facilities and ETUs by improving water disposal and training sanitation staff on maintenance of systems	UN Children's Fund (UNICEF)	3,301,560	3,301,560	8/20/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Procure case management equipment, train health workers, restore access to reproductive health services, and strengthen logistical management of supplies	UN Children's Fund (UNICEF)	680,333	680,333	8/20/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide IPC supplies (including gloves, mask, and chlorine) and training to family members and health caregivers aiding individuals with Ebola-like symptoms	UN Children's Fund (UNICEF)	2,224,044	2,224,044	9/15/2014	12/31/2014
Office of U.S. Foreign Disaster Assistance	Provide medicines and WASH supplies to ETUs and CCCs	UN Children's Fund (UNICEF)	30,802,089	22,700,517	12/9/2014	12/31/2016
Office of U.S. Foreign Disaster Assistance	Provide psychosocial and mental health support to EVD-affected children and households caring for EVD-affected children	UN Children's Fund (UNICEF)	3,492,720	3,492,720	2/20/2015	11/30/2015
Office of U.S. Foreign Disaster Assistance	Construction of four ETUs in Grand Gedeh, Maryland, Sinoe, and River Gee counties	Welthungerhilfe (WHH)	1,302,322	1,302,322	10/6/2014	4/5/2015
Office of U.S. Foreign Disaster Assistance	Support ETU construction	Welthungerhilfe (WHH)	653,323	653,323	10/6/2014	4/5/2015

Office of U.S. Foreign Disaster Assistance	Support personal protective equipment and logistics pipeline, IPC training, county-level surveillance and coordination, transport system for EVD lab samples, and psychosocial activities	World Health Organization	35,000,000	35,000,000	3/25/2015	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support personal protective equipment deployment and provide supply chain management and logistics support for ETUs and CCCs through warehousing, transportation, and inventory tracking and management	World Food Program	12,268,192	12,268,192	10/15/2014	6/30/2016
Office of U.S. Foreign Disaster Assistance	Support personal protective equipment deployment and provide supply chain management and logistics support for ETUs and CCCs through warehousing, transportation, and inventory tracking and management	World Food Program	45,008,916	45,008,916	10/15/2014	6/30/2016
Office of U.S. Foreign Disaster Assistance	Provide dedicated and appropriate logistics response capacity in case of three simultaneous Ebola events, and ensure national government response capacity	World Food Program	3,299,520	3,299,520	1/1/2016	12/31/2016
Mali						
Office of U.S. Foreign Disaster Assistance	Train healthcare workers on IPC and contact tracing along the border areas with Guinea	Catholic Relief Services	954,122	954,122	1/2/2015	9/30/2015
Office of U.S. Foreign Disaster Assistance	Support three rapid response teams to screen for suspect Ebola cases in Bamako and border areas for four months	International Medical Corps	2,000,000	2,000,000	1/1/2015	11/30/2015
Office of U.S. Foreign Disaster Assistance	Provide logistic support for rapid response teams and community surveillance to identify suspect Ebola cases in mining and border communities	International Organization for Migration	2,033,983	2,033,983	12/31/2014	9/30/2015

Office of U.S. Foreign Disaster Assistance	Rapid response programming to counter Ebola in Mali	UN Children's Fund (UNICEF)	400,000	400,000	6/26/2013	6/30/2015
Office of U.S. Foreign Disaster Assistance	Provide training for community health care workers in Ebola prevention and response in border districts	World Vision - USA	550,646	550,646	1/1/2015	8/31/2015
Sierra Leone						
Office of U.S. Foreign Disaster Assistance	Support for surveillance, contact tracing, and social mobilization activities in Sierra Leone	Christian Aid	945,690	945,690	2/1/2015	7/31/2015
Office of U.S. Foreign Disaster Assistance	Support for rapid response and social mobilization activities in Ebola-affected communities in Bombali and Koinadugu districts	Catholic Relief Services	548,619	548,619	1/5/2015	10/4/2015
Office of U.S. Foreign Disaster Assistance	Construct temporary isolation units and enhance IPC at 90 peripheral health units (PHUs) in Bombali district, Sierra Leone	GOAL	2,005,780	2,005,780	2/1/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support safe burials and clinical case management at ETU in Kenema	International Federation of Red Cross and Red Crescent Societies	3,500,000	3,500,000	9/18/2014	3/31/2015
Office of U.S. Foreign Disaster Assistance	Support clinical case management at ETU in Kenema, and support community awareness and social mobilization, contact tracing and surveillance activities, provision of psychosocial support, safe and dignified burials, and case management	International Federation of Red Cross and Red Crescent Societies	3,500,000	3,500,000	12/5/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Manage ETU in Kono and create rapid response capacity to respond to Ebola events in remote communities	International Federation of Red Cross and Red Crescent Societies	6,000,000	6,000,000	12/5/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Manage two ETUs in Port Loko and Kambia districts	International Medical Corps	7,772,793	7,772,793	10/1/2014	12/31/2015

Office of U.S. Foreign Disaster Assistance	Manage ETU and provide psychosocial support and community outreach to Ebola-affected communities in Port Loko district	International Medical Corps	5,164,183	5,164,183	10/1/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support for ETU in Kambia	International Medical Corps	439,597	439,597	10/1/2014	2/29/2016
Office of U.S. Foreign Disaster Assistance	Support the distribution of interim care kits with bleach, gloves, and oral rehydration solution to Ebola-affected households	International Organization for Migration	1,469,410	1,469,410	12/1/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support social mobilization activities, active case-finding, and cultural burial team in Bombali and Kono districts	International Organization for Migration	1,000,000	1,000,000	1/15/2015	10/15/2015
Office of U.S. Foreign Disaster Assistance	Train workers in Ebola screening and treatment at healthcare facilities	International Organization for Migration	1,000,000	1,000,000	1/15/2015	3/15/2016
Office of U.S. Foreign Disaster Assistance	Support IPC training through mobile training unit and health screening system	International Organization for Migration	900,000	900,000	1/15/2015	3/15/2016
Office of U.S. Foreign Disaster Assistance	Support surveillance and screening activities at land, air, and sea borders to prevent cross-border Ebola transmission in Sierra Leone	International Organization for Migration	920,000	920,000	6/2/2015	4/30/2016
Office of U.S. Foreign Disaster Assistance	Support surveillance and screening activities at land, air, and sea borders to prevent cross-border Ebola transmission in Sierra Leone	International Organization for Migration	1,310,000	1,310,000	6/2/2015	4/30/2016
Office of U.S. Foreign Disaster Assistance	Train healthcare workers on IPC at 1,100 PHUs in Sierra Leone	International Rescue Committee	4,400,000	4,400,000	11/15/2014	10/31/2015
Office of U.S. Foreign Disaster Assistance	Train staff on IPC at 18 government hospitals in Sierra Leone	International Rescue Committee	5,288,573	5,288,573	2/16/2015	5/15/2016

Office of U.S. Foreign Disaster Assistance	Train healthcare workers on IPC at 1,100 PHUs in Sierra Leone	International Rescue Committee	5,369,850	5,369,850	7/1/2015	5/15/2016
Office of U.S. Foreign Disaster Assistance	Support community-level surveillance and investigation of possible Ebola events in nine districts	International Rescue Committee	2,729,036	2,729,036	8/1/2015	3/31/2016
Office of U.S. Foreign Disaster Assistance	Support the CEBS consortium in Sierra Leone	International Rescue Committee	3,017,080	3,017,080	4/1/2016	9/6/2016
Office of U.S. Foreign Disaster Assistance	Manage ETU and support community outreach, psychosocial, and active case-finding activities in Kontorlah, Sierra Leone	MEDAIR, SWI	2,858,272	2,858,272	12/1/2014	1/31/2016
Office of U.S. Foreign Disaster Assistance	Improve access to enhanced isolation and medical care for communities affected by the Ebola outbreak	MEDAIR, SWI	2,490,944	2,490,944	12/1/2014	1/31/2016
Office of U.S. Foreign Disaster Assistance	Support social mobilization activities and EVD case-finding in all chiefdoms in Koinadugu district	OXFAM-GB	690,646	690,646	1/1/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Manage five CCCs, and support rapid response teams to respond to Ebola events in remote communities and social mobilization activities targeting Ebola-affected communities in Kono and Kambia districts	Partners in Health	5,461,489	5,461,489	1/1/2015	12/31/2015
Office of U.S. Foreign Disaster Assistance	Provide PPE and EVD response supplies for Ebola care facilities and health units, and support for school reopening, polio and measles immunization campaigns, and social mobilization activities in Sierra Leone	UN Children's Fund (UNICEF)	10,000,000	10,000,000	1/22/2015	12/31/2015

Office of U.S. Foreign Disaster Assistance	Comprehensive standardized survivor support program providing non-food item (NFI) kits to Ebola survivors and establishing an NGO network to provide protection support to Ebola-affected children	UN Children's Fund (UNICEF)	2,500,000	2,500,000	10/1/2014	10/31/2015
Office of U.S. Foreign Disaster Assistance	Provide NFI kits for Ebola survivors and provision of PPE for PHUs in Sierra Leone	UN Children's Fund (UNICEF)	1,996,000	1,996,000	10/1/2014	10/31/2015
Office of U.S. Foreign Disaster Assistance	Complementary activities on IPC for health workers in PHUs	UN Children's Fund (UNICEF)	1,584,214	1,584,214	10/29/2014	7/31/2015
Office of U.S. Foreign Disaster Assistance	Support IPC supervision at non-Ebola healthcare facilities and maintain Ebola surveillance activities in all districts of Sierra Leone	World Health Organization	8,000,000	8,000,000	6/1/2015	1/31/2016
Office of U.S. Foreign Disaster Assistance	Support IPC monitoring and improve quality of care in all facilities providing care for Ebola patients in Sierra Leone	World Health Organization	4,000,000	4,000,000	12/19/2014	12/31/2015
Office of U.S. Foreign Disaster Assistance	Support UN Humanitarian Air Service, transport and mobile warehousing units for EVD response supplies, and specimen transport	World Food Program	20,000,000	20,000,000	1/29/2015	6/30/2016
Office of U.S. Foreign Disaster Assistance	Ambulance disinfection and fleet management	World Vision - USA	2,472,525	2,472,525	12/15/2014	12/31/2015

Mitigate Second Order Impacts of the Crisis

Regional

Food for Peace	Document the learning from the use of cash in FFP's Ebola response, conduct four cash transfer-focused learning events in Liberia and Sierra Leone, and produce a video on the use of cash in the Ebola context	Action Against Hunger/Cash Learning Partnership	694,028	694,028	4/10/2016	5/31/2017
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Food for Peace	Support for early warning, analysis, and reporting on acute food insecurity	Chemonics/ FEWSNet	2,874,194	2,865,965	9/15/2015	3/3/2017
Food for Peace	Purchase agreement for in-kind ready-to-use therapeutic food for UNICEF for children under five years old with severe acute malnutrition, Ebola patients, and survivors in need of nutritional support	Edesia, Inc.	2,238,000	2,238,000	4/17/2015	10/14/2015
Food for Peace	Nutritional support for acutely malnourished children	UN Children's Fund (UNICEF)	3,935,510	3,374,348	6/22/2015	12/31/16
Food for Peace	Food assistance for EVD-affected Ivorian returnees from Liberia and host communities in Cote d'Ivoire	World Food Program	3,000,000	3,000,000	4/1/2015	12/31/2016
Global Development Lab	The Accra Data Harmonization Summit (May 18-22 in Accra, Ghana) focused on health information sharing policies, tools and standards to improve the region's ability to respond to current and future outbreaks. This four-day technical workshop was held to advance a common consensus and agenda on data harmonization for health information systems interoperability in the West Africa region. It led to the creation of action plans for HIS development in West Africa and commitments from governments to invest in health information systems and digital infrastructure.	Carolina Population Center at UNC, Chapel Hill	142,381	142,381	7/1/2015	6/28/2019

Global Development Lab	Support for the Ebola-related "Strengthening Health Information Systems toward Interoperability in the West Africa Region" Broad Agency Announcement (BAA) Addendum, including communications campaign and a workshop. The workshop, an essential step in the open competition process for the BAA, engaged private sector partners who submitted expressions of interest in developing specific innovative solutions to strengthen interoperability of health information systems in the West Africa region	DAI Washington	178,610	178,610	9/24/2014	9/26/2018
Global Development Lab	Learning agenda focused on the use of data and digital technologies in the crisis response, and to identify actionable recommendations on the use of data and digital systems in future response efforts	FHI 360	100,000	100,000	9/30/2012	9/29/2017
Global Development Lab	Support meetings on interoperability standards whereby participants collaborated on action plans to integrate technology into frontline health reporting, and to support community health workers	mPowering Frontline Health Workers	72,000	72,000	3/17/2014	3/16/2019
Global Development Lab	Provide guidance on information communications technology policy to facilitate implementation of health information system advancements being made by the Government of Liberia	NetHope	13,769	13,769	9/30/2015	9/29/2020

Global Development Lab	Analysis of information communications technology issues and challenges that resulted in health system and health information management failures in the Ebola affected countries. This work provided USAID and partners with data-driven recommendations for Ebola recovery information communications technology work to enable the global community and Ministries of Health to effectively detect, prevent and respond to future outbreaks	United Nations Foundation	961,261	961,261	10/1/2014	9/30/2019
Global Development Lab	Travel support for a thought leader who was embedded in the Guinea Ministry of Health to participate in technology solution development with partners through the co-creation process under the HIS Interoperability BAA in November 2015	Carolina Population Center at University of North Carolina, Chapel Hill	5,409	5,409	7/1/2014	6/28/2019
Global Health	Develop repurposed shipping containers as scalable, rapidly deployable and potentially semi-permanent ETUs that include training and process pathways, as well as patient and supply tracking systems	Baylor College of Medicine	613,927	613,927	5/29/2015	5/28/2016
Global Health	Develop colored bleach mist formula to visualize sprayed surfaces and ensure proper coverage and decontamination	Columbia University	649,342	649,342	7/8/2015	12/30/2017
Global Health	Develop open source mobile platform that supports health data collection, decision support, client tracking, SMS communication, and map-based visuals to alleviate current communication burden and disconnect	Dimagi, Inc.	298,996	298,996	5/22/2015	5/21/2016
Global Health	Develop a new clothing system for improved heat stress relief, full body liquid integrity, and ease of doffing	International Personnel Protection	243,205	243,205	5/22/2015	4/21/2016

Global Health	Leverage health information system and mobile phones to support frontline health workers	IntraHealth International	700,000	700,000	6/9/2015	6/8/2016
Global Health	Develop safer and faster doffing personal protective equipment for frontline health workers and design new personal protective equipment for community and family care	Johns Hopkins University	793,635	793,635	9/26/2012	9/25/2017
Global Health	Develop a redesigned ETU that allows for more effective heat and air exchange thereby providing a cooler environment for healthcare workers and patients	Makerere University	482,231	482,231	6/10/2015	2/10/2016
Global Health	Develop modular and rapidly deployable treatment units that use technology to moderate unit temperature and simplify decontamination efforts for safer, more comfortable conditions	Modula S Inc.	500,000	500,000	5/1/2015	4/30/2019
Global Health	Develop wearable technologies, including a disposable, Bluetooth-enabled sensor that attaches like a band-aid and allows for remote monitoring of Ebola patients' critical vital signs	Scripps Health	632,058	632,058	6/9/2015	6/8/2016
Global Health	Develop low-cost, battery-powered infusion monitor that delivers fluids with precision to patients, thereby eliminating the risk of fluid overload and enhancing survival	Shift Labs, Inc.	318,682	318,682	12/22/2014	12/21/2019
Global Health	Develop long-lasting, spray-on barrier to be used as a key component in the design of effective medical PPE materials that are breathable, require fewer removals, reusable, and generate less infectious waste	SPR Advanced Technologies, Inc.	655,788	655,788	5/22/2015	11/18/2015

Global Health	Develop state-of-the-art, easy-to-assemble chambers that decontaminate health care workers and equipment in less than three minutes without hazardous chemicals	TOMI Environmental Solutions, Inc.	559,003	559,003	11/18/2014	11/17/2017
	Ebola oversight activities	GAO	500,000	500,000		
Guinea						
Food for Peace	Provide food vouchers for emergency food assistance and market support	Catholic Relief Services	3,253,136	3,253,136	2/24/2015	9/30/2016
Food for Peace	Support for Ebola emergency and recovery school feeding program	World Food Program	7,182,907	7,182,907	3/25/2015	12/31/2016
Global Development Lab	Embedded two expert advisors in the Guinea Ministry of Health to develop health information strategies and data-driven decision making processes	Carolina Population Center at University of North Carolina, Chapel Hill	500,000	500,000	7/1/2014	6/28/2019
Global Health	Support health finance and governance	Abt Associates Inc.	1,000,000	1,000,000	9/1/2012	9/1/2017
Global Health	Increase the availability and quality of health service delivery data, and institutionalize data-driven decision-making	Carolina Population Center at University of North Carolina, Chapel Hill	2,000,000	2,000,000	7/1/2014	6/30/2019
Global Health	Restoration of routine health service delivery, strengthen IPC practices, and strengthen health systems	Jhpiego Corporation	6,000,000	6,000,000	3/1/2014	3/1/2019
Global Health	Ensure an essential integrated care package for maternal, newborn and child health is being consistently provided with high quality at health facilities and in surrounding communities	Jhpiego Corporation	2,900,000	2,900,000	12/10/2015	9/30/2016
Global Health	Support for social mobilization and behavior change communications	Johns Hopkins University Center for Communication Programs	5,500,000	5,500,000	9/26/2012	9/25/2017

Global Health	Restoration and expanding the capability of the public health supply chain	Management Sciences for Health	2,500,000	2,500,000	9/23/2011	9/22/2017
Global Health	Support for the Stop Ebola Collective, a music and media campaign in local languages to promote and change communities' behaviors to prevent Ebola transmission in West Africa	3D Family Production	268,455	268,455	5/29/2015	8/15/2015
Guinea	Strengthen civil society to promote public dialogue regarding electoral processes	Consortium for Elections and Political Process Strengthening	1,500,000	1,500,000	8/26/2015	8/31/2016
Guinea	Support for credible, participatory, transparent, peaceful, and fair elections	Search for Common Ground	500,000	500,000	9/27/2012	8/31/2016
Liberia						
Africa Bureau	Reduce stigma of Ebola survivors and empower civil society and media to hold government and other stakeholders accountable by focusing on accountability, media monitoring, and technical support for community radio stations	IREX	1,250,000	1,250,000	2/26/2010	11/30/2015
Food for Peace	Support targeted cash transfers, cash-for-work, and agricultural input vouchers for emergency food assistance and market recovery	ACDI/VOCA	9,000,000	8,999,973	3/17/2015	9/9/2016
Food for Peace	Support targeted cash transfers and agricultural input vouchers for emergency food assistance and market recovery	Mercy Corps	8,970,000	8,970,000	1/7/2015	12/31/2016
Food for Peace	Support targeted cash transfers, cash-for-work, and agricultural input vouchers for emergency food assistance and market recovery	Project Concern International	8,030,564	8,030,564	2/12/2015	9/11/2016
Food for Peace	Support targeted cash transfers and agricultural input vouchers for emergency food assistance and market recovery	Save the Children	4,574,526	4,574,526	8/31/2015	11/30/2016

Food for Peace	Support for Ebola emergency and recovery school feeding program	World Food Program	7,370,323	7,370,323	4/22/2015	10/31/2016
Food for Peace	Support relief and recovery operation for Ebola-affected Ivorian refugees	World Food Program	8,921,600	8,921,600	3/7/2014	4/30/2016
Global Development Lab	Innovation and communication technology workshop in Liberia attended by government and private sector parties to develop recommendations addressing policy and market challenges impeding the build out of communications infrastructure, and started the process of developing a new communications infrastructure to strengthen overall health systems and enable more timely information and response to future outbreaks	W3C	20,000	20,000	8/5/2013	8/4/2016
Global Development Lab	Embedded expert advisors in Liberia's Ministry of Health, Health Monitoring and Evaluation Research Unit, to develop health information system strategies and data-driven decision making processes	Carolina Population Center at University of North Carolina, Chapel Hill	500,000	500,000	7/1/2014	6/28/2019
Global Development Lab	Development of a digital payment system in Liberia that will allow digital salary payments to health workers to become digitized	FHI 360	562,113	562,113	9/30/2012	9/29/2017
Global Development Lab	Deploy experts to support Liberia's Ministry of Health to improve HIS interoperability	K4Health II	60,001	60,001	9/20/2013	9/20/2018
Global Development Lab	Develop Liberia's information and communications technology capacity to better respond to future disease outbreaks by strengthening policy, infrastructure, connectivity in the country	NetHope	80,377	80,377	9/30/2015	9/29/2020

Global Development Lab	Support for demand analysis of Monrovia's communications network infrastructure, with a focus on connecting hospitals, clinics, and government ministries, and strengthening communications weaknesses that emerged during the Ebola crisis	SIA	19,488	19,488	12/15/2015	2/29/2016
Global Health	Support strategic planning and rollout of mobile money sensitization, registration, and validation for health workers	FHI 360	1,500,000	1,500,000	9/30/2012	9/29/2017
Global Health	Restore routine health services, increase utilization of health services, and expand health worker capacity and capability	International Rescue Committee and Partners	7,000,000	7,000,000	2/23/2015	2/22/2020
Global Health	Restore routine health service delivery and strengthen IPC practices at up to 61 health facilities	Jhpiego Corporation	15,500,000	15,500,000	3/1/2014	3/1/2019
Global Health	Support social mobilization and behavior change communication at the national and sub-national levels	Johns Hopkins University Center for Communication Programs	2,600,000	2,600,000	9/26/2012	9/25/2017
Global Health	Strengthen health service delivery and provide technical assistance to build the capacity of the public health supply chain	John Snow, Inc.	1,714,611	1,714,611	9/1/2010	2/2/2017
Global Health	Strengthen routine immunization services and capacity	UN Children's Fund (UNICEF)	2,000,000	2,000,000	9/1/2007	9/1/2020
Liberia	Rehabilitation of water infrastructure in Voinjama, Liberia	United Infrastructure Projects	9,200,560	9,200,560	2/1/2016	1/31/2019
Sierra Leone						
Food for Peace	Distribute Title II and locally procured corn soy blend to children at risk of moderate acute malnutrition, support for agricultural input vouchers, seed loans to agricultural business centers, and targeted cash transfers	ACDI/VOCA	9,000,000	9,000,000	4/14/2015	12/31/2016

Food for Peace	Support targeted cash transfers for emergency food assistance and market recovery	CARE	2,769,546	2,769,546	8/15/2015	11/15/2016
Food for Peace	Support targeted cash transfers for emergency food assistance and market recovery	Catholic Relief Services	2,462,296	2,462,296	8/26/2015	1/31/2017
Food for Peace	Support targeted cash transfers and cash grants to traders for emergency food assistance and market recovery	Save the Children	8,026,886	8,026,886	3/1/2015	12/31/2016
Food for Peace	Support targeted cash transfers and agricultural input vouchers for emergency food assistance and market recovery	World Vision	3,585,767	3,585,767	7/28/2015	1/27/2017
Global Development Lab	Embedded advisors in the Sierra Leone Ministry of Health to develop HIS strategies and data-driven decision making processes	Carolina Population Center at University of North Carolina, Chapel Hill	500,000	500,000	7/1/2014	6/28/2019
Global Development Lab	Support the implementation of mHero, a two-way communication and information sharing tool, in Sierra Leone at the national and sub-national level	IntraHealth	250,000	250,000	6/9/2015	6/8/2016
Global Development Lab	Support for training workshop on how to integrate mobile and digital technology into community health worker programming, support community health workers, and improve health systems strengthening post-Ebola	mPowering Frontline Health Workers	15,000	15,000	3/17/2014	3/16/2019
Global Development Lab	Embedded a Senior Health Advisor from the World Health Organization into Sierra Leone's MOH to provide recommendations and propose solutions to address gaps in MOH and donor health information systems. This activity will inform regional health information systems standards	World Health Organization	399,986	399,986	9/11/2009	9/29/2020

Global Health	Support for citizen engagement platform to develop effective behavior change policies	IBM Research	526,355	526,355	7/16/2015	6/8/2016
Global Health	Support the ongoing processes of defining and documenting community health worker and digital health efforts	Jhpiego Corporation	15,000	15,000	3/1/2014	3/1/2019
Global Health	Support social mobilization and behavior change communication at the national and sub-national levels	Johns Hopkins University Center for Communication Programs	5,000,000	5,000,000	9/26/2012	9/25/2017
Global Health	Restoration of routine health service delivery and strengthening IPC practices	JSI Research and Training Institute	15,000,000	15,000,000	10/1/2012	9/30/2017
Global Health	Restore and expand public health supply chain capability	Management Sciences for Health	4,500,000	4,500,000	9/1/2011	9/1/2016
Global Health	Procure essential medications and commodities for the Government of Sierra Leone	UN Children's Fund (UNICEF)	4,500,000	4,500,000	9/1/2007	9/1/2020

Strengthen Global Health Security

Regional

Global Health	Support the detection and control of Ebola and infectious diseases along the Abidjan-Lagos Corridor by strengthening the capacity of the screening posts at land borders, sea borders, and airports	Abidjan-Lagos Corridor Organization	600,000	600,000	3/23/2015	3/22/2018
Global Health	Build capacity of the Government of Cote d'Ivoire to prepare and respond to infectious diseases outbreaks	ABT Associates, Inc.	550,000	550,000	9/1/2012	9/1/2017
Global Health	Provide laboratory support, supplies, and technical assistance for Ebola	Broad Institute	500,000	500,000	9/24/2014	9/23/2015
Global Health	Strengthen surveillance systems to detect and monitor highly infectious diseases, particularly epidemic-prone diseases like Ebola	Carolina Population Center at University of North Carolina, Chapel Hill	3,000,000	3,000,000	7/1/2014	6/30/2019

Global Health	Build capacity in countries to prepare and respond to infectious diseases outbreaks	Chemonics	2,000,000	2,000,000	9/1/2015	8/31/2020
Global Health	Support for West African Regional and in-country Ebola preparedness workshops	DAI	2,002,000	2,002,000	10/1/2014	9/30/2019
Global Health	Develop and maintain the capacity and skills to prevent, detect, and respond to pandemic threats at the regional, national, and subnational levels in West Africa	DAI	21,000,000	21,000,000	10/14/2014	9/19/2019
Global Health	Build capacity of the West African Governments to prepare and respond to infectious diseases outbreaks	Economic Community of West African States (ECOWAS)	1,884,642	1,884,642	1/30/2015	1/30/2019
Global Health	Support for surveillance, capacity strengthening, and risk modeling to identify if livestock are associated with evolution, spillover, amplification, or spread of Ebola in West Africa	Food and Agriculture Organization (FAO)	49,950,000	49,950,000	9/1/2006	4/30/2019
Global Health	Build the capacity of community health workers to deliver services observing updated IPC guidelines	Jhpiego Corporation	1,500,000	1,500,000	3/1/2014	3/1/2019
Global Health	Strengthen the capacity of country health communication programs to detect and respond to epidemic-prone diseases such as Ebola	Johns Hopkins University Center for Communication Programs	1,100,000	1,100,000	9/1/2012	9/1/2017
Global Health	Develop Ebola communication materials, including community care campaigns	John Hopkins Center for Communication Programs	4,888,500	4,888,500	9/26/2012	9/25/2017
Global Health	Build capacity of Cote d'Ivoire to prepare and respond to infectious diseases outbreaks by supporting health facilities to enhance their capacity in IPC, Ebola case identification and management, infrastructure building, national reporting, and community outreach	JSI Research and Training Institute	2,014,650	2,014,650	10/1/2012	9/30/2017

Global Health	Strengthen community-based surveillance systems to detect and monitor Ebola and other epidemic-prone diseases, and provide immediate reporting structures	Management Sciences for Health	5,465,000	5,465,000	9/1/2011	9/1/2016
Global Health	Contribute to the implementation of the Senegal National Response Plan for the prevention of Ebola outbreaks	Pathfinder	1,101,000	1,101,000	9/30/2011	9/29/2016
Global Health	Build capacity of the Regional Animal Health Center for the surveillance and response of emerging zoonotic threats in West Africa	Permanent Interstate Committee for Drought Control (CILSS)	2,000,000	2,000,000	4/15/2015	12/30/2017
Global Health	Support the detection and control of infectious diseases	Population Services International	1,150,000	1,150,000	4/1/2014	4/1/2019
Global Health	Build capacity of West African countries to prepare and respond to infectious diseases outbreaks with logistics support of procuring, distributing, storing and tracking distribution/stock of commodities during health emergencies	SCMS	140,000	140,000	6/30/2009	9/29/2016
Global Health	Strengthen epidemic control capacity by training facility- and community-based health workers to detect and report suspect cases of Ebola and other highly infectious diseases	UN Children's Fund (UNICEF)	6,086,723	6,086,723	9/1/2007	9/1/2020
Global Health	Provide longitudinal surveillance and support laboratory capacity building in West Africa	University of California, Davis	49,200,000	49,200,000	10/1/2014	9/30/2019
Global Health	Support university networks to assist government ministries to train the future health workforce, with particular attention to addressing the threat posed by Ebola and other zoonotic diseases	University of Minnesota	24,400,000	24,400,000	11/1/2014	11/1/2019

Global Health	Build capacity of the Government of Ghana to prepare and respond to infectious diseases outbreaks	University Research Co., LLC	3,950,000	3,950,000	9/30/2012	9/29/2017
Global Health	Deploy technical experts to Guinea, Liberia, and Sierra Leone, provide operational and personnel support, and provide 105,000 sets of PPE for health staff and outbreak investigators	World Health Organization	12,787,500	12,787,500	9/1/2009	9/1/2016
Global Health	Support coordinated multi-sectoral field investigation and response to disease outbreaks	World Health Organization	1,500,075	1,500,075	9/1/2009	9/1/2016
Senegal	Support behavior change communication for pandemic preparedness	ADEMAS	250,000	250,000	3/1/2012	9/30/2016
Senegal	Support for Ebola preparedness activities including organization of health centers and community sites and implementation of community outreach interventions	ChildFund	420,000	420,000	10/1/2011	9/30/2016
Senegal	Support Ebola pandemic preparedness activities including building capacity of health workers and health facilities in IPC, monitoring capacities, and the establishment of an alert platform	IntraHealth International	330,000	330,000	10/1/2011	9/30/2016
Guinea						
Africa Bureau	Support health messaging and community outreach, with emphasis on reducing violence towards healthcare workers, and comprehensive IPC training in health facilities	Plan Guinea, Helen Keller International, Research Triangle International, Jhpiego Corporation	3,482,000	3,482,000	11/17/2014	8/16/2015

Redirected USAID Ebola Funds

Ebola

Global Health	Inter-agency agreement for Ebola response activities	Centers for Disease Control	80,000,000	80,000,000	5/24/2016	12/31/2018
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Zika

Global Health	Inter-agency agreement for Zika response activities	Centers for Disease Control	78,000,000	78,000,000	5/24/2016	12/31/2018
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Global Health	Program support for Zika response activities	Department of Agriculture	116,000	116,000	9/30/2011	9/30/2018
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Global Health	Collection and dissemination of tools and materials related to Zika on pregnancy, birth and early childhood development for health providers, local authorities, and managers	Jhpiego Corporation	2,000,000	2,000,000	3/17/2014	3/16/2019
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Global Health	Develop and adapt national -level social behavior change community strategy documents, including audience segmentation and profiling, message harmonization, and establishment of rumor monitoring systems	Johns Hopkins University	1,000,000	1,000,000	9/26/2012	9/25/2017
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Global Health	Determine which existing family planning and reproductive health materials and tools need to be adapted for Zika, facilitate adaptation and translation, and disseminate for use on Zika resource platform and through local channels	Johns Hopkins University	400,000	400,000	9/11/2013	9/10/2018
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Global Health	Support reproductive health services, with a focus on underutilized family planning methods and reaching vulnerable populations, and develop protocols for counseling pregnant women and their partners on Zika	International Planned Parenthood Federation	2,000,000	2,000,000	5/13/2014	5/12/2019
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Global Health	Design and implement national-level social and behavior change communication (SBCC) campaigns, including audience segmentation, pretesting and materials development for various audiences. Ongoing monitoring of SBCC programs and sharing of data with partners	Population Services International	3,500,000	3,500,000	4/18/2014	4/17/2019
Global Health	Support development of clinical care and support guidelines and quality improvement	University Research Co.	5,000,000	5,000,000	9/1/2012	9/1/2017

Source: USAID Office of U.S. Foreign Disaster Assistance, Office of Food for Peace, Bureau for Global Health, Bureau for Africa, and Global Development Lab, 2016

TABLE NOTES:

† Program descriptions may refer to multiple awards, and activities under the same award may be reflected under different pillars in the table.

‡ Figures for commitments and obligations may include funding associated with multiple awards.

§ Information from USAID on periods of performance corresponds with dates stipulated in award documents. Ebola-related program activities may have been performed at a later date than the indicated start date for a program. In some cases start dates predate the Ebola outbreak.

Appendix C: Acronyms

ASPR	Office for the Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services
BARDA	Biomedical Advanced Research and Development Authority, U.S. Department of Health and Human Services
CCC	Community care center
CDC	Centers for Disease Control and Prevention, U.S. Department of Health and Human Services
CEBS	Community event-based surveillance
CHW	Community health worker
CRS	Catholic Relief Services
DART	Disaster Assistance Response Team, U.S. Agency for International Development
DHS	U.S. Department of Homeland Security
DoD	U.S. Department of Defense
DOS	U.S. Department of State
EPR	Epidemic preparedness and response
ETU	Ebola Treatment Unit
EVD	Ebola Virus Disease
FDA	Food and Drug Administration, U.S. Department of Health and Human Services
FY	Fiscal Year
GAO	Government Accountability Office
GHSA	Global Health Security Agenda
HHS	U.S. Department of Health and Human Services
HIS	Health Information Systems
IMF	International Monetary Fund
IOM	International Organization for Migration
IPC	Infection prevention and control
NIAID	National Institute of Allergy and Infectious Disease, National Institutes of Health, U.S. Department of Health and Human Services
NIH	National Institutes of Health, U.S. Department of Health and Human Services

OFDA	Office of U.S. Foreign Disaster Assistance, U.S. Agency for International Development
OIG	Office of Inspector General
PHU	Peripheral health unit
PPE	Personal Protective Equipment
PREVAIL	Partnership for Research on Ebola Virus in Liberia
SBCC	Social and behavior change communication
STRIVE	Sierra Leone Trial to Introduce a Vaccine Against Ebola
UN	United Nations
UNICEF	UN Children's Fund
USAID	U.S. Agency for International Development
WASH	Water, sanitation and hygiene
WFP	World Food Program
WHO	World Health Organization

Appendix D: Endnotes

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