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Infectious Disease Detection and Surveillance (IDDS)

Quarterly Report

January 1, 2021–March 31, 2021



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List of Abbreviations

AMR	Antimicrobial Resistance
BSL	Biosafety Level
CBS	Community-based Surveillance
CENAT	Center for Tuberculosis and Leprosy Control
CME	Continuous Medical Education
COVID-19	Coronavirus Disease 2019
CTD	Central Tuberculosis Division
DHIS2	District Health Information Software, Version 2
DNA	Diagnostic Network Assessment
DNL	<i>Direction Nationale des Laboratoires</i>
DQA	Data Quality Audit
DR	Drug-resistant
DRC	Democratic Republic of the Congo
DST	Drug Susceptibility Testing
EBS	Event-based Surveillance
EQA	External Quality Assurance
EVD	Ebola Virus Disease
FAO	Food and Agriculture Organization of the United Nations
FY	Fiscal Year
GHS	Global Health Security
GOI	Government of India
HMIS	Health Management Information System
IDDS	Infectious Disease Detection and Surveillance
INRB	<i>Institut National de Recherche Biomédicale</i>
INSP	National Institute of Public Health
IR	Intermediate Result
IRL	Intermediate Reference Laboratory
LPA	Line Probe Assay
M&E	Monitoring and Evaluation

MDR	Multi-drug Resistant
MOH	Ministry of Health
MOU	Memorandum of Understanding
NASIC	National Antimicrobial Stewardship Interagency Committee
NPHL	National Public Health Laboratory
NTEP	National Tuberculosis Elimination Program
NTP	National Tuberculosis Program
NTRL	National Tuberculosis Reference Laboratory
PCR	Polymerase Chain Reaction
QMS	Quality Management System
RDT	Rapid Diagnostic Test
RPHL	Regional Public Health Laboratory
SIZE	System for Zoonotic and Emerging Infectious Disease
SOP	Standard Operating Procedure
TB	Tuberculosis
TWG	Technical Working Group
USAID	United States Agency for International Development
VTM	Viral Transport Media
WHO	World Health Organization

Program Overview

Summary Overview

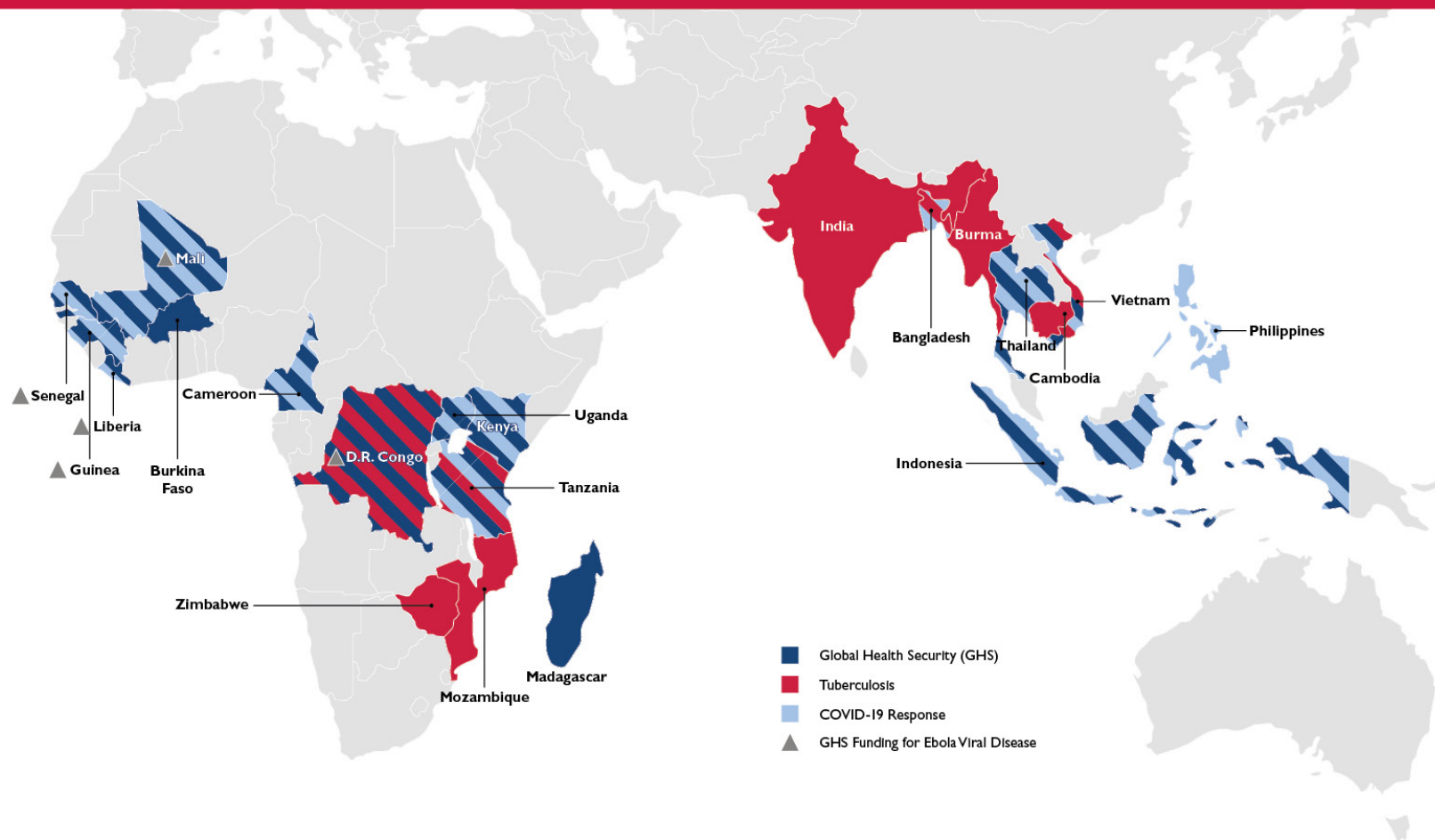
Activity Name:	USAID Infectious Disease Detection and Surveillance
Activity Start Date and End Date:	May 22, 2018–May 21, 2023
Name of Prime Implementing Partner:	ICF Incorporated, LLC
Contract Number:	GS00Q14OADU119
Names of Partners:	PATH, FHI 360, African Society for Laboratory Medicine, Metabiota, Abt Associates, Gryphon Scientific, Association for Public Health Laboratories, Fondation Mérieux
Geographic Coverage:	Countries: Bangladesh, Burkina Faso, Burma, Cambodia, Cameroon, Democratic Republic of the Congo, Guinea, Kenya, India, Indonesia, Liberia, Madagascar, Mali, Philippines, Senegal, Tanzania, Thailand, Uganda, Vietnam, Zimbabwe Regions: Regional Development Mission Asia Core: Tuberculosis
Reporting Period:	January 1, 2021–March 31, 2021

Program Description

The Infectious Disease Detection and Surveillance (IDDS) project is strengthening the capacity of 20 countries in Africa and Asia to effectively detect and monitor outbreaks of infectious diseases, improve identification and reporting of antimicrobial resistance (AMR) pathogens, increase tuberculosis (TB) detection and notification, and strengthen disease surveillance (Figure 1). The project's two primary intermediate result (IR) objectives are to strengthen country-level **diagnostic networks (IR1)** and **surveillance systems (IR2)**.

Figure 1: IDDS project map

INFECTIOUS DISEASE DETECTION AND SURVEILLANCE (IDDS) PROJECT WHERE WE WORK



Quarterly Progress

FY 2021 Q1 Overall Achievements

This report summarizes activities that occurred during quarter 2 (Q2) of fiscal year (FY) 2021 and program year 3: January 1, 2021, through March 31, 2021. This quarter, the project operated 14 Global Health Security (GHS) programs and 7 TB programs and served as a critical partner for the U.S. Government's response to the Coronavirus Disease 2019 (COVID-19) pandemic in 6 countries and to the Ebola outbreak in 5 countries.

GLOBAL HEALTH SECURITY

Strengthening National Diagnostic Networks

IDDS is a key partner for countries in meeting objectives of the Global Health Security Agenda partnership and the U.S. Government's Global Health Security Strategy. Through GHS funding, IDDS is developing national diagnostic networks that are accessible, accurate, adaptable, timely, and integrated. A strengthened network is one that is:

- Reliable, accurate, and provides rapid testing and reporting
- Enables effective communication between patients, clinicians and veterinarians, laboratories, and public health officials
- Spans the tiered levels from point-of-care to national and supranational sites

In FY 2021 Q2, IDDS supported 14 countries to strengthen their diagnostic networks. Key progress in this area is presented in the sections that follow.

Identifying and addressing gaps in diagnostic networks (IR 1.1)

In FY 2021, IDDS provided support to countries to identify and address gaps in diagnostic networks, which included assessing existing capacity in diagnostic networks, improving quality control and assurance of diagnostic services, strengthening capacity for diagnostic testing of AMR and other priority pathogens, and enhancing specimen transport referral and reporting systems.

IDDS country teams **assessed existing diagnostic capacity** by working closely with in-country stakeholders to review national laboratory plans and map diagnostic networks. In **Madagascar**, IDDS contributed to development of a draft *Plan Strategique des Laboratoires* by comparing across other country programs to integrate best practices. In **Thailand**, as part of support to the Regional Public Health Laboratory (RPHL) Network, IDDS facilitated a video conference on COVID-19 vaccine development and monitoring for participants across seven countries and key donor partners, and facilitated additional RPHL meetings to support key decision-making related to addressing gaps in the network in 2021. IDDS conducted mapping activities for laboratories in the **Democratic Republic of the Congo (DRC)**, **Cameroon**, and **Mali**.

Building capacity for facilities to implement improved **quality management systems (QMS)** remained an IDDS priority in FY 2021 Q2. IDDS country teams provided technical assistance to support laboratories in several countries to move toward expanding the scope of their accreditation. For example, in **Kenya**,

IDDS supported two referral hospitals to be accredited for their bacteriology services and is advocating counties to cover accreditation fees. In **Liberia**, IDDS provided support for Stepwise Laboratory Quality Improvement Process Towards Accreditation audits conducted by country teams for Strengthening Laboratory Management Towards Accreditation-enrolled facilities. IDDS trained a group of trainers to support veterinary laboratories to meet ISO 17025:2017 standards in **Uganda**. In **Mali**, IDDS QMS support involved conducting biosafety and biosecurity assessments, developing improvement plans, and providing onsite coaching for the Ségou Regional Hospital Laboratory and the National Institute of Public Health (INSP) Laboratory.

IDDS worked to strengthen **specimen referral** and reporting systems. For three countries, this involved support to create a national specimen referral and transport system or framework. In **Burkina Faso**, where the focus was on a One Health approach, IDDS supported the development of costed recommendations for an integrated specimen referral system for AMR testing and comprehensive system guidance documents. In **Kenya**, IDDS finalized operational frameworks for specimen referral in IDDS-supported counties and developed an AMR surveillance isolate referral guide with guidance on packaging and transportation, which will be integrated into the existing system. In **Vietnam**, IDDS prepared a roadmap for developing an integrated human health specimen referral system.

Through all activities in this category, IDDS worked with a complex set of in-country stakeholders to **ensure participation and ownership of testing and capacity-building activities**. In **Tanzania**, this meant working with the National Public Health Laboratory (NPHL) and Medical Stores Departments within the Ministry of Health (MOH) to develop a supportive supervision checklist, which was jointly implemented. Building long-term capacity to sustain human resources for laboratory testing capabilities was also a priority in FY 2021 Q2. In **Kenya**, IDDS worked with the Aga Khan University Hospital Laboratory and NHPL to hold virtual continuing education on using laboratory QMS and low-cost microbiology to detect AMR. The education series included case scenarios and information on low-cost technologies for facilities to harness. In **Liberia**, IDDS completed the development of a curriculum for a new Bachelor of Medical Laboratory Sciences degree for the University of Liberia, College and Health Sciences.

Table 1: Project outputs related to strengthening diagnostic networks for FY 2021 Q2 and the countries that contributed to these outputs

GHS IR 1.1: Gaps in diagnostic networks identified and essential components supported							
	TOTAL	Equipment Maintenance	Commodity Management	QMS	Specimen Referral	Biosafety	Other Diagnostic Network Topics
People Trained	58	0	0	27	10	21	0
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	11	0	1	0	7	2	1
TWG Group Meetings Held	0	0	2	2	15	0	2
Supervisory Visits Conducted	17	0	1	9	0	0	7
Items Procured ¹	10	4	0	0	6	0	0
Pilots Conducted	0	0	0	0	0	0	0
Assessment Reports Completed	3	0	0	0	1	1	1
Countries ²							

GHS IR 1.1: Gaps in diagnostic networks identified and essential components supported							
	TOTAL	Equipment Maintenance	Commodity Management	QMS	Specimen Referral	Biosafety	Other Diagnostic Network Topics
Burkina Faso					•		
Cameroon							
DRC					•		•
Indonesia EPT							
Kenya							
Liberia		•	•	•			
Madagascar							•
Mali				•		•	
Senegal							
Tanzania			•			•	
Thailand EPT							
Uganda				•	•		
Vietnam					•		

¹ Items procured include equipment, supplies, or reagents for either diagnostic or surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, they but do not include routine administrative materials (e.g., office supplies).

² Countries listed are those that contributed to specific outputs this Q2. Countries that are working toward, but have not achieved, an output are not included.

Integrating appropriate diagnostic network components among various infectious diseases (IR 1.2)

As countries advance to having stronger diagnostic networks, **integrating network components to ensure that they utilize a One Health approach** will enable faster communication across patients, clinicians and veterinarians, laboratories, and public health officials, and support faster detection and response to infectious diseases. In FY 2021 Q2, IDDS supported developing frameworks and guidelines, mapping human and animal health laboratories, and designing improved integrated specimen referral and transport networks. In **Uganda**, IDDS finalized testing standards for seven priority zoonotic diseases across human and animal health. This work was in support of a framework that will enable the integration of diagnostic components in animal and human health laboratories. In **Burkina Faso**, IDDS finalized a report on costed recommendations to improve the One Health and AMR specimen referral and transport system, along with guidance documents to support overall integration. IDDS also worked to optimize One Health laboratory networks in several countries. In **Cameroon**, for example, IDDS completed data quality reviews of all previously mapped human and animal laboratories. In **Vietnam**, IDDS mapped four veterinary laboratories at the subnational level and found low levels of available veterinary laboratory capacity and poor biosafety. IDDS support in **Vietnam** also led to development of a roadmap for an integrated human health specimen referral system and work with the Department of Animal Health to draft guidelines for animal-related specimen collection, packaging, and transport to inform an animal health specimen referral system. Finally, the IDDS team provided technical assistance in **Kenya** to the National Antimicrobial Stewardship Interagency Committee (NASIC) to map the human and animal specimen referral network.

Improving capacity to detect priority pathogens and AMR (IR 1.3)

As part of **building capacity to detect priority pathogens and AMR**, IDDS contributed to reviewing and revising national AMR strategic plans, action plans, guidelines, and standard operating procedures (SOPs) in several countries in FY 2021 Q2, working closely with in-country stakeholders. In **Kenya**, IDDS met with the MOH, the NASIC, and the United States Agency for International Development (USAID)-funded University of Nairobi's Health IT project to strategize on how to package IDDS-developed AMR surveillance materials so they can be accessible through the MOH's e-learning platform. In **Senegal**, IDDS developed national SOPs, training materials, and tools for AMR surveillance, which the MOH then validated. In two countries, **Liberia** and **Madagascar**, IDDS support related to conducting a biannual laboratory review meeting with counties and stakeholders and providing financial support to organize meetings of a steering committee. IDDS continued its support to improve quality control and quality assurance by providing in-person mentorship in **Kenya** and **Liberia** when testing AMR specimens.

IDDS supported facilities to **improve their testing capacity for AMR and priority pathogens** with a broad range of activities conducted across seven countries in FY 2021 Q2. For example, IDDS supported procurement of essential equipment and supplies for testing in **Cameroon, Liberia, Madagascar, and Senegal**. In **Liberia**, IDDS enabled the distribution and installation of equipment and procured essential reagents to initiate bacteriology at three hospital laboratories. IDDS-supported trainings focused on use of equipment, bacteriology, and AMR detection, and IDDS developed SOPs for equipment maintenance in **Kenya** and for the detection of priority AMR pathogens in **Cameroon**. In **Liberia**, IDDS completed refurbishment of G.W. Harley Hospital to provide bacteriology testing and AMR surveillance, and facilitated a ceremony to hand over the facility to the MOH.

Table 2: Project outputs related to pathogen and AMR testing capacity for FY 2021 Q2 and the countries that contributed to these outputs

GHS IR 1.3: Capacity to detect priority pathogens and AMR improved			
	TOTAL	Testing	AMR
People Trained	33	9	24
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	42	0	42
TWG Group Meetings Held	6	3	3
Supervisory Visits	7	1	6
Items Procured ¹	7,930	170	7,760
Pilots Conducted	0	0	0
Assessment Reports Completed	0	0	0
Countries²			
Burkina			
Cameroon			•
DRC		•	
Indonesia EPT			
Kenya			•
Liberia		•	•
Madagascar			
Mali			
Senegal			•
Tanzania		•	•
Thailand EPT			

GHS IR 1.3: Capacity to detect priority pathogens and AMR improved			
	TOTAL	Testing	AMR
Uganda			
Vietnam			

¹ Items procured include equipment, supplies, or reagents for either diagnostic or surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, they but do not include routine administrative materials (e.g., office supplies).

² Countries listed are those that contributed to specific outputs this Q2. Countries that are working toward, but have not achieved, an output are not included.

Strengthening National Surveillance Systems

IDDS is working to strengthen national surveillance systems at all levels of the health system in countries in which it is operating. By bolstering comprehensive surveillance and response systems, where surveillance and laboratory data and human and animal health surveillance systems are integrated, IDDS aims to support countries to more quickly and effectively detect events of significance for public health, animal health, and health security.

In FY 2021 Q2, IDDS supported countries to strengthen indicator-based surveillance, event-based surveillance (EBS), and community-based surveillance (CBS); strengthen AMR surveillance; and strengthen interoperability between human and animal health and health security information systems.

Identifying and addressing gaps in surveillance systems (IR 2.1)

IDDS conducted a series of activities across countries in FY2021 Q2 related to understanding the current landscape of indicator-based surveillance, EBS, and CBS, and related to addressing identified gaps through capacity building and technical assistance. A primary set of activities involved **understanding system functioning**, capacity gaps, coordination mechanisms, and strategic plans. In some cases, the quality of the surveillance system was also assessed at the national and subnational levels. Of note, IDDS supported the evaluation of the national public health surveillance system in **Madagascar**, collecting data from 75 facilities across all levels of the health system. Results from the evaluation were presented to in-country stakeholders during a workshop in February.

IDDS also **conducted capacity building and provided technical assistance** to strengthen surveillance in FY 2021 Q2. In **Madagascar** and **Mali**, IDDS teams provided technical and financial support to conduct data reviews and develop surveillance bulletins that were distributed to districts through e-mail in Madagascar and through District Health Information Software, version 2 (DHIS2) in Mali. IDDS contributed to strengthening and institutionalizing supportive supervision in **Mali** and **Senegal**. In **Mali**, IDDS conducted post-training supervision visits with community health centers and community health worker sites to augment CBS activities and provided technical and financial support for integrated disease surveillance and reporting. In **Senegal**, IDDS used supportive supervision at the district level and held training workshops across 10 health districts. IDDS worked extensively in **Vietnam** to develop communications materials for the community to increase awareness of selected EBS signals of disease outbreaks and public health events of concern and strengthen community-based reporting into the health system. IDDS also built capacity in **Vietnam** related to EBS across both the human health and animal health sectors.

Table 3: Project outputs related to strengthening surveillance systems for FY 2021 Q2 and the countries that contributed to these outputs

Result area: GHS IR 2.1: Gaps in core functions of surveillance systems identified and essential activities supported				
	TOTAL	Data Quality	Data Analysis and Use	Other Surveillance Topic ³
People Trained	X	0	15	1127
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	4	1	2	1
TWG Group Meetings Held	5	2	1	2
Supervisory Visits	5	3	0	2
Items Procured ¹	430	0	0	430
Pilots Conducted	2	1	0	1
Assessment Reports Completed	2	1	0	1
Countries ²				
Burkina			•	•
Cameroon			•	•
DRC				
Indonesia EPT				•
Kenya		•	•	
Liberia				
Madagascar				
Mali				•
Senegal		•		
Tanzania				
Thailand EPT				
Uganda		•		•
Vietnam				•

¹ Items procured include equipment, supplies, or reagents for surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, but they do not include routine administrative materials (e.g., office supplies).

² Countries listed are those that contributed to specific outputs this Q2. Countries that are working toward, but have not achieved, an output are not included.

³ For FY 2021 Q2 People trained and items procured all correspond to Vietnam events-based surveillance activities.

Improving interoperability and interconnectedness across national disease reporting systems (IR 2.2)

To strengthen surveillance systems, IDDS worked toward **interoperability across national disease reporting systems**. In FY2021 Q2, IDDS bolstered national coordinating mechanisms, developed interoperability multiyear roadmaps, and provided substantial support to build capacity and provide technical assistance to integrate information systems across sectors.

For two countries, IDDS provided support to **strengthen or expand existing coordination mechanisms** across sectors. In **Indonesia**, IDDS conducted a virtual coordination meeting in March, attended by the Coordinating Ministry for Human Development and Cultural Affairs, MOH, Ministry of Agriculture, Ministry of Environment and Forestry, World Health Organization (WHO), and Food and Agriculture Organization of the United Nations (FAO), to finalize the draft of the Decree for the Cross-Sectoral

Coordination Working Group. In **Burkina Faso**, IDDS supported the development of a plan and training materials for EBS extension, developed a One Health documentation library, and supported the functioning of the One Health Multisectoral Coordination platform.

Support for **national-level interoperability roadmaps** was also a mandate for IDDS in FY 2021 Q2 across three countries. In **Indonesia**, IDDS coordinated and funded a preparatory coordination meeting to develop a System for Zoonotic and Emerging Infectious Disease (SIZE) Roadmap for the country; 62 participants across multiple cross-sector ministerial bodies attended. In **Uganda**, IDDS reviewed and finalized the Strategy for Coordinated and Integrated Surveillance for Priority Zoonotic Diseases at a workshop attended by diverse range of human health and animal health stakeholders. In **Kenya**, IDDS completed a draft surveillance interoperability roadmap that is currently undergoing review.

IDDS also focused on building capacity and providing technical assistance to develop linkages across sectors. IDDS worked extensively with in-country stakeholders to coordinate and facilitate workshops and document outputs; and developed a series of training materials, tools, and guidelines to strengthen surveillance across a number of countries. In **Indonesia**, IDDS held an online seminar to raise awareness of the zoonotic Nipah virus disease that is transmitted by bats and pigs and highlight its impact on the country. IDDS also finalized the 4-Way Linking workshop report. In **Mali**, IDDS held a workshop to identify gaps in real-time surveillance and developed an action plan and report on the outcomes. In **Vietnam**, IDDS consulted with stakeholders through a workshop to increase capacity and use of the Vietnam Animal Health Information System. In terms of technical assistance, IDDS provided monthly supportive supervision in **Mali**, completed development of guidelines and a tool for routine data quality assessments in animal health surveillance sites in **Uganda**, and drafted a general systems requirements checklist that can be used at any AMR surveillance site in **Kenya** that seeks to install a laboratory information system. In **Uganda**, IDDS formally presented an Excel-based data collection system to ministerial stakeholders, which led to the review of the current paper-based system used at the regional level to report on priority zoonotic diseases.

Table 4: Project outputs related to interoperability and reporting for FY 2021 Q2 and the countries that contributed to these outputs

GHS IR 2.2: Interoperability and interconnectedness across national disease reporting systems improved			
	TOTAL	Interoperability	Electronic Reporting
People Trained	153	0	153
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	1	1	0
TWG Group Meetings Held	3	1	2
Supervisory Visits	0	0	0
Items Procured ¹	6	0	6
Pilots Conducted	2	0	2
Assessment Reports Completed	0	0	0
Countries ²			
Burkina			
Cameroon			•
DRC			
Indonesia EPT			•
Kenya			
Liberia			

GHS IR 2.2: Interoperability and interconnectedness across national disease reporting systems improved			
	TOTAL	Interoperability	Electronic Reporting
Madagascar			
Mali			
Senegal			•
Tanzania			
Thailand EPT			
Uganda		•	•
Vietnam			•

¹ Items procured include equipment, supplies, or reagents for either diagnostic or surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, but they do not include routine administrative materials (e.g., office supplies).

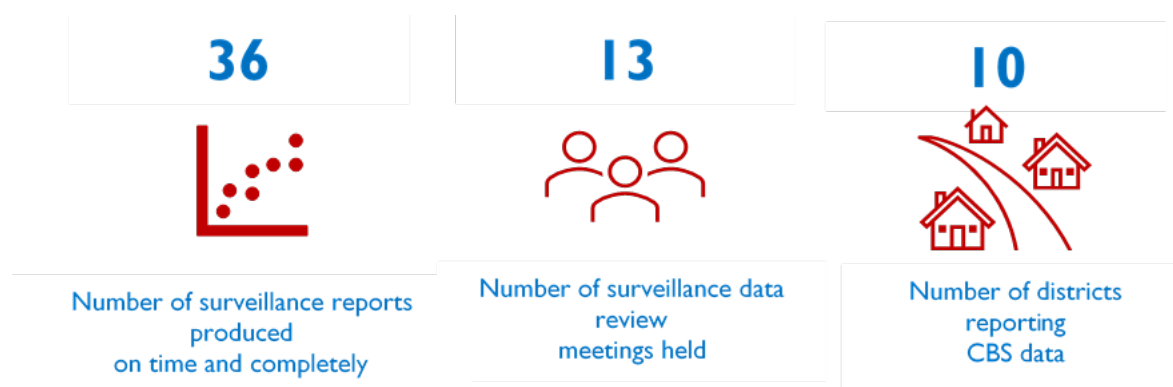
² Countries listed are those that contributed to specific outputs this Q2. Countries that are working toward, but have not achieved, an output are not included.

Improving capacity to conduct surveillance of priority pathogens and AMR (IR 2.3)

IDDS worked across five countries in FY2021 Q2 to **build capacity to strengthen surveillance**. To do this, IDDS reviewed and revised national AMR strategic plans, developed and implemented action plans for AMR surveillance, built capacity of AMR sentinel surveillance sites, and, in one case, bolstered the AMR reporting system. IDDS support spanned technical assistance, procurement, and fostering linkages among crucial stakeholders.

IDDS **strengthened the national AMR strategy** in **Madagascar**, where the team financed and provided technical inputs at a workshop that contributed to finalizing the National Surveillance Strategic Plan, and in **Senegal**, where the team developed and finalized training materials and tools for AMR surveillance. IDDS also implemented action plans related to AMR surveillance in **Cameroon** and **Tanzania**. In **Cameroon**, IDDS procured computers to support the upcoming AMR surveillance pilot study, to enhance AMR data collection, analysis, and reporting to the WHO Global Antimicrobial Resistance Surveillance System, and to establish an AMR data warehouse to act as the national coordination center for AMR surveillance at the NPHL. In **Tanzania**, IDDS developed a supportive supervision checklist for use at laboratories to assess capacity for AMR surveillance; created links with a sheep's blood supplier to procure blood, critical for AMR laboratories; and assisted the NPHL to identify missing priority pathogen standard strains that IDDS could help to procure.

In FY 2021 Q2, IDDS also directly **built capacity of AMR sentinel surveillance sites** by training laboratory managers, heads of microbiology, and antimicrobial stewardship coordinators on analyzing AMR data in **Kenya** and conducting data quality audits. Also in **Kenya**, IDDS also developed a data sharing guide for AMR surveillance, drafted a template for quarterly AMR surveillance bulletins, and provided technical assistance on converting and improving internal AMR surveillance dashboards to be public facing with capability to receive feedback. IDDS built similar capacity in **Tanzania**, focusing on supportive supervision checklists and generating good quality data for wound site AMR surveillance. IDDS also created data quality improvement plans, including distribution of a standardized reporting template to laboratories to improve overall capacity and quality reporting for priority pathogens and AMR surveillance.



TUBERCULOSIS

Strengthening National Diagnostic Networks

Through core USAID funding and field funding from USAID missions, IDDS aims to strengthen TB diagnostic networks as part of a strong health system, build diagnostic capacity for early TB; drug resistant (DR)- and multi-drug resistant (MDR)-TB case detection, and enhance capacities of national and regional reference laboratories in countries where IDDS operates.

In FY 2021 Q2, IDDS operationalized this objective across focus countries by identifying and addressing gaps in TB diagnostic networks, boosting national and regional TB and MDR-TB case detection and notification capacities, and strengthening linkages across essential stakeholders to support effective management of the diagnostic network.

Identifying and addressing gaps in diagnostic networks (IR 1.1 TB)

To **address gaps in existing diagnostic networks**, IDDS conducted a range of activities in FY 2021 Q2 including planning for TB Diagnostic Network Assessments (DNAs), conducting TB laboratory spatial analysis, strengthening TB specimen referral systems, expanding the use of GeneXpert, strengthening leadership and management of the TB diagnostic network, expanding TB diagnostic connectivity solutions, and engaging with the private sector.

Through **core TB** funding, IDDS finalized the web and mobile version of the TB NET tool to facilitate data entry and simplify data management for TB DNAs. In **Burma**, IDDS collected facility-level data for nine essential components of the TB DNA to support analysis of laboratory network coverage and accessibility and allow for spatial analysis, as part of pre-assessment activities. In **Vietnam**, IDDS revised the already conducted TB DNA report to disaggregate analysis by National TB Program (NTP) facilities and non-NTP facilities.

IDDS worked to **strengthen TB specimen referral systems** in several countries in FY 2021 Q2, working closely with in-country stakeholders. In **India**, IDDS met with the Central TB Division (CTD) to share findings from the situational analysis conducted at national and intermediate reference laboratories and discuss plans to develop a comprehensive and holistic framework for strengthening the TB diagnostics care cascade within the national laboratory system. In **Vietnam**, IDDS consulted with stakeholders to understand the existing TB specimen referral system and how it could be integrated with the enhanced model being developed as part of GHS activities in the country. In **Zimbabwe**, IDDS developed a master list with Global Positioning System coordinates of all health facilities providing TB services; this list will be used to develop specimen transport system routing schedules.

IDDS supported efforts to **expand the use of TB diagnostics** through trainings, supportive supervision, operation research, and technical assistance. IDDS conducted trainings in **Bangladesh** for laboratory staff on line probe assay (LPA) which enabled the Sylhet biosafety level (BSL)-3 Laboratory to initiate LPA testing for second-line TB drugs. IDDS collaborated with stakeholders in **Tanzania** as part of the Tuberculosis Laboratory Technical Working Group (TWG) to discuss implementation and challenges of the zonal laboratories program, including review of associated performance indicators. IDDS also met with the Central Tuberculosis Reference Laboratory on restarting the external quality assurance (EQA) program, including an additional 220 sites. In **Vietnam**, IDDS finalized a report for a pilot on stool testing using GeneXpert. In **Zimbabwe**, with Core TB funding, IDDS implemented Driving Xpert Optimization,

which will help track Xpert key performance data and turnaround times from specimen collection to return of results to clinicians from data provided from laboratory and clinical services.

IDDS continued to **build governance and management capacity** for the TB diagnostic network. As part of an IDDS-organized stakeholder workshop in **Bangladesh**, IDDS reviewed and revised the draft TB laboratory strategy with partners and shared the strategy with the NTP for feedback. In **Zimbabwe**, IDDS provided coordination and technical support to review and virtually lead the revision of the National Health Laboratory Strategic Plan (2022-2026) with a broad range of stakeholders. In **India**, IDDS reinforced management capacity in national and intermediate reference laboratories to lead the laboratory diagnostic network by reviewing existing supervisory checklists, reporting, and indicators and discussing how to strengthen these processes. IDDS also visited TB laboratories at different levels of the health system to provide recommendations to strengthen diagnostic activities, streamline laboratory processes, and address gaps in roles and responsibilities.

Expanding TB diagnostic connectivity solutions is also a mandate under many of the IDDS country programs. In **Cambodia**, IDDS began to draft an implementation and human resource plan for establishing diagnostic connectivity and worked with the Center for Tuberculosis and Leprosy Control (CENAT) to specify customizations required for the DataToCare system. In **Tanzania**, IDDS extended its contract with SystemOne for technical assistance on GxAlert connectivity and together they trained superusers who can monitor and troubleshoot TB data from 213 surveillance sites and input them into a central dashboard at the National TB and Leprosy Program. IDDS also visited laboratories in **Zimbabwe** to train laboratory staff on how to maintain and troubleshoot GeneXpert machines, including troubleshooting non-reporting devices, swapping routers on devices with poor network connection, installing updated GxConnect software, and installing new routers and software in laboratories with connectivity challenges. IDDS also implemented a Driving Xpert Optimization intervention to strengthen **Zimbabwe's** GeneXpert network. A report with details on the contract with SystemOne and outcomes from year one of the intervention was also completed.

In FY 2021 Q2, IDDS **engaged with the private sector** in two focal countries to continue to address gaps within national TB diagnostic networks. In **India**, IDDS met with the CTD and the laboratory team to discuss a model for private sector engagement, out of which arose a one-stop diagnostic solution model to engage with private sector laboratories. The model was shared with the CTD, which provided feedback. The revised version has also been shared with USAID's flagship TB program in **India**, iDEFEAT TB, and private sector partner IQVIA for inputs and to plan for a consultative workshop. IDDS also held consultative meetings with artificial intelligence vendors and users in **Vietnam** to understand user requirements of various software that could adapt a Double-X algorithm to incorporate artificial intelligence reading of X-rays and expand use of the algorithm in the private sector.

Table 5: Project outputs related to TB diagnostic network strengthening for FY 2021 Q2 and the countries that contributed to these outputs

TB IR 1.1: Gaps in diagnostic networks identified and essential components supported								
	TOTAL	Equipment Maintenance	Commodity Management	QMS	Specimen Referral	Biosafety	Electronic Reporting	Other Diagnostic Network Topics
People Trained	0	0	0	0	0	0	0	0
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	1	0	0		0	0	0	1
TWG Group Meetings Held	4	0	0	0	1	0	0	3
Supervisory Visits	0	0	0	0	0	0	41	0
Items Procured ¹	1	0	0	0	0	0	0	1
Pilots Conducted	0	0	0	0	0	0	0	0
Assessment Reports Completed	1	0	0	0	0	0	0	1
Bangladesh								•
Burma								
Cambodia								
DRC								
India								•
Tanzania								
Vietnam					•			•
Zimbabwe							•	

¹ Items procured include equipment, supplies, or reagents for either diagnostic or surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, but they do not include routine administrative materials (e.g., office supplies).

Improving capacity to detect TB, DR-TB, and MDR-TB (IR 1.3 TB)

During this quarter IDDS improved capacity to detect TB, DR-TB, and MDR-TB by providing **technical assistance to introduce new TB diagnostic tools**, building diagnostic capacity of laboratory staff, and increasing access to quality chest X-rays. IDDS is facilitating the introduction of Truenat, a new diagnostic tool used to detect TB and DR-TB in decentralized facilities. In **Bangladesh**, IDDS planned a pilot of Truenat, working with USAID through its introducing New Tools Project (iNTP) under the STOP TB Partnership to obtain 14 Uno (one chip) and 24 Duo (two-chip) Truenat instruments and other consumables for the pilot. IDDS also designed a second pilot in **Bangladesh** for use of Xpert MTB/XDR, which would detect resistance to six drugs used for TB treatment in a single test. In **Cambodia**, IDDS worked with CENAT to obtain documentation to enable import of instruments and reagents for Truenat, and is developing the pilot protocol in the country. In **India**, IDDS expanded the scope of proposed

research on Truenat following meetings with the CTD and its laboratory team and has shared the revised research proposal with the CTD laboratory team for additional input. In **Zimbabwe**, IDDS developed draft scopes for operational research on interpretation of “Trace” results from GeneXpert MTB/RIF Ultra.

Improving TB diagnostic capacity of laboratory staff remained an IDDS priority in FY 2021 Q2, and through close collaboration with stakeholders, IDDS developed training materials and curricula, conducted site assessments, mentored staff, and helped troubleshoot problems. In **Bangladesh**, IDDS developed a curriculum on preventative maintenance of TB equipment for the NTP, is developing training materials on QMS, and developed an e-module on biosecurity and biosafety as part of Develop, an e-learning platform for TB laboratory capacity building. IDDS also completed a site assessment and inventory of TB equipment at the Khulna Regional TB reference laboratory to support expansion into use of liquid culture for drug susceptibility testing (DST) and LPAs, manually collected GX use data for the Rajshahi and Sylhet divisions, and identified **Vietnam** as a model for building a GX EQA program in the country. In **Burma**, the IDDS senior TB diagnostic specialist worked virtually with key technical staff from BSL-3 laboratories to develop action plans to support the national TB reference laboratory (NTRL) and is working to prepare an SOP for DST of second-line TB drugs. IDDS also developed a chapter on infection control at subnational facilities that will be included as part of the national infection control guidelines following review by the NTP. Capacity building in **India** was centered on technical assistance to assess the preparedness and understanding of factors hindering initiation of liquid culture services at the TB Culture and DST Laboratory, providing guidance and training to resolve onsite issues for liquid culture and DST, and providing recommendations on key technical, operational, and administrative issues to improve functioning of two intermediate reference laboratories in Patna. In **Zimbabwe**, the IDDS diagnostic specialist, who is embedded in the NTRL, has been mentoring staff to prepare the laboratory to serve as the leading institution in the TB diagnostic network and reviewing all clinical results before they are dispatched to clinics. IDDS also provided technical assistance to the NTRL staff to prepare GeneXpert PT panels for quarterly distribution within the TB diagnostic network. IDDS is part of a Ministry of Health and Child Care TWG that continued to monitor preparations for installation of a modular or containerized laboratory that will be a stopgap measure while the main Bulawayo NTRL is renovated. In Burma, IDDS worked to **increase access to quality chest X-rays** and finalized a chest X-ray training curriculum.

Table 6: Project outputs related to TB testing capacity for FY 2021 Q2 and the countries that contributed to these outputs

TB 1.3: Capacity to detect TB and DR-TB improved	
	Testing Procedures
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	0
TWG Group Meetings Held	2
People Trained	8
Supervisory Visits	5
Items Procured ¹	0
Pilots Conducted	0
Assessment Reports Completed	0
Countries ²	
Bangladesh	●
Burma	

TB 1.3: Capacity to detect TB and DR-TB improved	
	Testing Procedures
Cambodia	
DRC	
India	•
Tanzania	•
Vietnam	•
Zimbabwe	

¹ Items procured include equipment, supplies, or reagents for either diagnostic or surveillance activities, as per the approved work plan. Items can also include laptops, printers, or modems, but they do not include routine administrative materials (e.g., office supplies).

COVID-19

IDDS partnered with the U.S. Government to respond to the COVID-19 pandemic to increase country capacity to transport and test COVID-19 specimens. In FY 2021 Q2, IDDS supported countries in COVID-19 specimen collection and transport-related activities, training and technical assistance, procurement of essential equipment and supplies, and EQA.

Specimen collection and transport

Additional funding in the **Philippines** enabled the IDDS team to meet with Department of Health regional officers and local government units to plan for and coordinate specimen transport activities in three additional provinces: Bulacan (Region III), Rizal (Region IVA), and Palawan (Region IVB). IDDS also tapped into the Shell Philippines transport mechanism, which airlifts specimens in partnership with the local government unit of Palawan.

Training and technical assistance

In **Indonesia**, IDDS finalized a video to showcase the impact of USAID COVID-19 funding through the IDDS project and finalized a series of training videos on how to enter COVID-19 test results into the data management system maintained by provincial offices. The MOH approved the training videos in March. In the **Philippines**, IDDS met with the local government units to plan for trainings on specimen collection and is finalizing participants.

Procurement

IDDS procured key testing commodities for several countries in FY 2021 Q2. This included procurement of priority commodities in **Indonesia** that support human health laboratories to conduct COVID-19 polymerase chain reaction (PCR) testing. In **Senegal**, IDDS used remaining funds to procure a biosafety cabinet class II for the Louga Regional Hospital. IDDS also delivered previously procured commodities to the Louga Regional Hospital and the Ouakam Health Center in Dakar. In **Tanzania**, IDDS delivered previously procured items, which included triple packaging and its outer carriage, pipettes, viral transport media (VTM), swabs, COVID-19 sanitary items (powder free gloves, waste bins, handwashing soap, soap dispensers, sharp containers), desktop computers, and printers, to the 16 regions at the border and the NPHLs. Coordinating closely with the Department of Medical Science in **Thailand**, IDDS procured and delivered commodities necessitated by the recent COVID-19 surge on the Thailand-Burma border. In **Vietnam**, IDDS completed delivery of specimen swabs and VTM to the NTP and using remaining funds, began procurement of high-priority commodities.

EQA

IDDS support in **Vietnam** included the creation of a SARS-CoV-2 retesting program in January that became part of the EQA strategy.

57,158



Items procured

GHS SUPPORT TO EBOLA VIRUS DISEASE

In FY 2021 Q2, IDDS received supplemental GHS funding to support a response to Ebola Virus Disease (EVD). IDDS submitted five work plans; work plans in DRC, Guinea, and Senegal were approved. Countries require a functional diagnostic network with an effective and efficient specimen and referral transport system to support an emergency response to EVD. IDDS began planning for and implementing EVD diagnostic strengthening activities that included specimen integrity, transportation, and tracking, and improving diagnostic capacity, including through procurement and laboratory mapping assessments.

Specimen transport referral and tracking system

IDDS supported specimen transport in **DRC** by contracting two vehicles to transport EVD specimens in Butembo and nearby health zones and supporting local stakeholders, such as the *Institut National de Recherche Biomédicale* (INRB, or National Institute for Biomedical Research) to distribute EVD diagnostic commodities and dispose of used cartridges. IDDS also developed SOPs to support monitoring and tracking of EVD specimen location, integrity, quality, and results in **Guinea**, and had the SOPs validated by the laboratory technical working group.

Diagnostic training and technical assistance

In **Guinea**, IDDS provided five sets of trainings in biosafety and biosecurity in Kindia and Nzérékoré using materials developed by the *Direction Nationale des Laboratoires* (DNL).

Xpert Ebola assay quality assurance

Ensuring high-quality testing is a priority for IDDS in supporting the response to EVD. To this end, IDDS developed a quality assurance plan in **Guinea** for GeneXpert Ebola assay for the laboratory in Nzérékoré.

Information management systems

A health management information system (HMIS) that can capture EVD epidemic data rapidly and accurately is paramount to the EVD response. In **Guinea**, IDDS developed terms of reference for a consultant who will help configure the existing HMIS to integrate key laboratory variables and indicators relevant to EVD data. IDDS also procured tablets and computers for the National Health Security Agency (*Agence Nationale de Sécurité Sanitaire*) and the DNL.

Procurement

Procurement of essential equipment and supplies is an integral aspect of strengthening laboratory diagnostic capacity for EVD. In **DRC**, IDDS received a list of priority laboratory commodities from the Provincial Health Division and INRB and began procurement of these items. For both **DRC** and **Guinea**, IDDS began procurement of 1,000 GeneXpert cartridges from Cepheid for each country. In **Guinea**, IDDS also placed an order for 50 cooler boxes.

Implementation Status

Work plans and deliverables submitted in FY 2021 Q2 are summarized in the tables that follow.

Work Plans Submitted and Approved in FY 2021 Q2

	Submitted/Resubmitted	Received USAID Approval
GHS	DRC (NTW-1), Guinea, Liberia	DRC (pending updated monitoring and evaluation [M&E] plan), Guinea, Indonesia, Liberia (except NTW-3.1)
TB	Cambodia, Vietnam, Tanzania, Burma (amendment of work plans), Core TB	Cambodia, Vietnam, Tanzania (with contingencies)
C-19F	Philippines	Philippines
EVD	DRC, Guinea, Senegal, Liberia, Mali	DRC, Guinea, Senegal

Deliverables Submitted in FY 2021 Q2

	QASP Deliverables Submitted to USAID during Q2
Core TB	2
TB	6
GHS	19
C-19F	31
Total	58

CURRENT AND CUMULATIVE WORKPLAN PROGRESS

GHS FY 2021 Q2 Achievements

BURKINA FASO

Quarterly Highlights

Diagnostic Highlights:

- Developed guides, SOPs, and training modules for the specimen referral and transport system to build capacity for biosafety. IDDS also developed an integrated transport and referral system for One Health samples (human and animal) and developed a costed recommendation report for a comprehensive One Health specimen referral and transport system inclusive of AMR.
- Finalized two reports this quarter: a report on agreed-on improvements for a One Health specimen referral and transport system, the costed recommendation report for a comprehensive One Health specimen referral and transport system inclusive of AMR,
- Finalized draft comprehensive specimen referral and transport system guidance documents that were prepared with counterparts.

Surveillance Highlights:

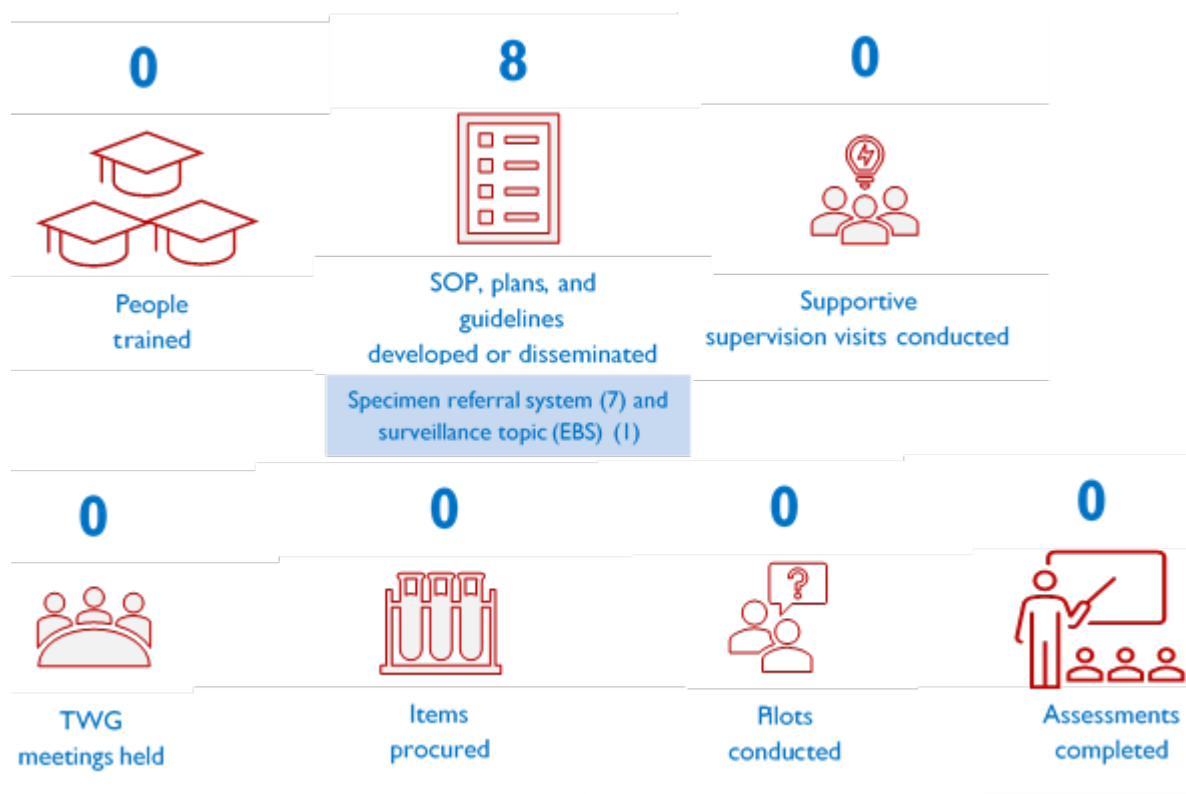
- All 19 IDDS-supported sites were reporting surveillance data electronically in FY 2021 Q2, up from only 3 sites at the end of FY 2020.
- Developed an EBS expansion plan, training materials, and tools to guide integration between the Ministry of Agriculture and the Ministries of Health, Environment, and Animal and Fisheries Resources and shift to One Health. IDDS and the surveillance focal points from the three ministries (Health, Environment, and Animal and Fisheries Resources) jointly conducted two supervision visits to the Centre Sud and Plateau Central regions to strengthen surveillance.
- IDDS provided technical assistance to develop the One Health documentation library with the content management system dupral.ci. This is the first time a location exists to store key documents that are easily accessible and can be sustainably managed by the country. The online library is available at <https://burkinalib.iddsproject.org>.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
COVID-19 restrictions delayed implementation of the <i>Antibiologie and Antibiothérapie</i> course	The <i>Antibiologie and Antibiothérapie</i> course has been rescheduled from February 2021 to November 2021.	It is possible to adopt remote technologies to enable partner collaboration and continue implementation of activities.	In progress
Poor follow-up of EBS activities at regional and provincial levels	The team now communicates with regional directors and field EBS focal points through phone calls and joint field visits with representatives from	Close collaboration with field partners is important and useful to ensure success in	In progress

Problem	Resolution	Lessons	Status
	the three ministries to strengthen engagement, implementation, and accountability for activities.	implementing project activities	
Lack of financial resources for community-level surveillance and sensitization activities	The Ministry of Animal and Fisheries Resources and the Ministry of Environment are holding discussions with community health workers to seek a resolution.	It is important to find ways to regularly pay community health workers while also exploring alternative financing options to keep community health workers engaged, such as through transport fees and meals.	In progress

FY 2021 Q2 Output Results



CAMEROON

Quarterly Highlights

Diagnostic Highlights:

- Strengthened laboratory staff capacities at sentinel surveillance sites through training and supervision on AMR detection. IDDS also harmonized national SOPs for detection of priority AMR pathogens.
- Procured laboratory reagents, consumables, and small equipment to support AMR detection and data management at the University Teaching Hospital Bacteriology Laboratory of Yaoundé and the National Veterinary Laboratory of Garoua (see photo below).



Surveillance Highlights:

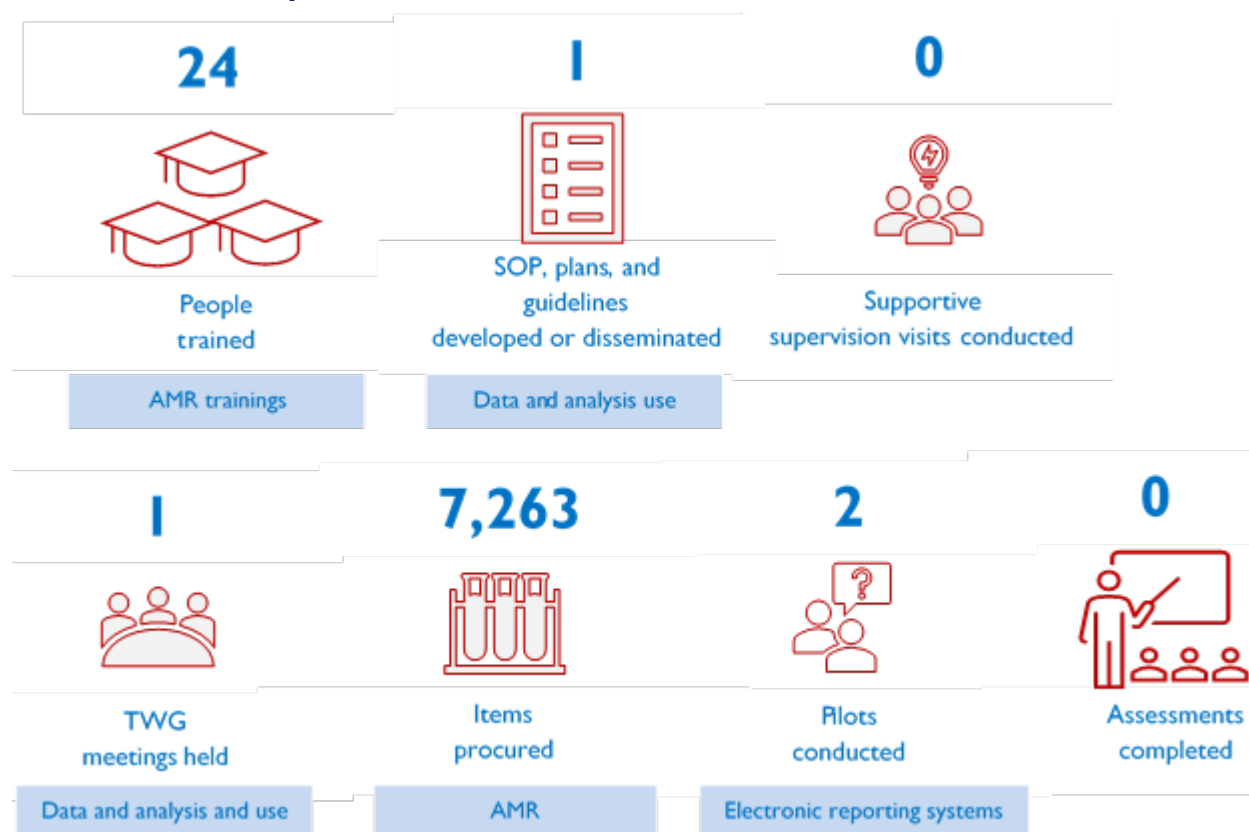
- Finalized the AMR surveillance plan this quarter, putting in place the first national strategy to guide AMR surveillance for the country.

- Supported implementation of pilot AMR surveillance in five sentinel sites, which is the first time the country has initiated operational AMR surveillance at sentinel sites. This is one of the steps within the national strategy to fight AMR.
- Supported the NPHL to establish and equip an AMR data warehouse to coordinate AMR surveillance data collection, analysis, interpretation, and reporting to the WHO Global Antimicrobial Resistance Surveillance System. IDDS also procured computers for data collection at the pilot AMR surveillance sentinel sites.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
NPHL staff in charge of coordinating AMR laboratory activities were unavailable due to competing priorities related to COVID-19. This delayed implementation for many planned activities this quarter.	IDDS continues to communicate with NPHL and other partners to adjust scheduled activities based on staff availability.	Constant and close communication is necessary to mitigate delays due to the COVID-19 pandemic.	In progress

FY 2021 Q2 Output Results



DEMOCRATIC REPUBLIC OF THE CONGO

Quarterly Highlights

- The third draft of the work plan was submitted on January 8, 2021 and received approval from USAID on January 26, 2021.

Diagnostic Highlights:

- Collaborated with the Provincial Division of North Kivu to map out public health laboratories, which included laboratories at the provincial level, general reference hospitals, and reference health centers in the health zones. Ten investigators were trained from February 1 to 3, 2021, on the protocol, developed by the African Society for Laboratory Medicine, and on how to use the laboratory mapping tool. Data collection in the field took place from February 4 to 17, 2021. A total of 68 laboratories were mapped, including 56 simple laboratories, 1 complex laboratory, and 11 medium laboratories. The final activity report highlights gaps and recommends steps to strengthen the provincial and national laboratory network to effectively meet diagnostic needs and strengthen disease surveillance.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Mapping in other provinces was delayed due to unsafe conditions.	The IDDS team continues to monitor the security situation	Staff safety needs to be prioritized at all times during our intervention in eastern DRC, where security is a concern.	In progress
Mapping was halted in other provinces in March to prioritize support to the EVD response.	IDDS will pursue this activity in other targeted provinces (Ituri, South Kivu, and Maniema) in May.	Careful planning and coordination can help to meet activity goals.	In progress
African Society for Laboratory Medicine facilitators were unable to travel to eastern DRC to train MOH staff on laboratory mapping.	The MOH was conducting the training in Kinshasa, so an IDDS staff member participated in the training and then trained MOH staff in eastern DRC, who were to undertake the lab mapping in North Kivu.	Working closely with in-country partners can lead to innovative solutions.	Addressed

FY 2021 Q2 Output Results

10

People
trained

Specimen referral system

0

SOP, plans, and
guidelines
developed or disseminated

0

Supportive
supervision visits conducted

0

TWG
meetings held

0

Items
procured

0

Pilots
conducted

1

Assessments
completed

Laboratory mapping

GUINEA

Quarterly Highlights

- The second draft of the FY 2021 work plan was submitted to USAID on February 5, 2021 and approved February 8.
- USAID asked IDDS to pause the implementation of the approved GHS work plan and focus efforts on the EVD response that started in February 2021.
- At USAID's request, implementation of the remaining components of all surveillance activities has been dropped from the FY 2021 work plan.

Success Story:

One Health National Agreements to Strengthen Collaboration in Guinea (See Annex B for full story) *USAID's IDDS project is seeking to strengthen the surveillance and laboratory networks in Guinea using the One Health approach.*

Surveillance Highlights

- Worked with the *Agence Nationale de Sécurité Sanitaire* and other stakeholders to support a review of existing CBS toolkits to formulate a standard, *Agence Nationale de Sécurité Sanitaire*-endorsed CBS toolkit.
- Completed technical review and finalized the Guinea CBS update report, which reports on key activities completed previously: an initial desk review; a workshop in Kindia to formulate best practices and tools for a standardized toolkit; TWG meetings to formalize national CBS best practices; a workshop in Dubreka to validate the revised and updated CBS training materials and tools; and an assessment of the pilot area, followed by a training of community health workers on CBS. The update report also details all the activities completed to prepare for the pilot. Its intended audience is USAID and any implementing partner or Guinea national agency that will continue CBS in the pilot areas.

Problems Encountered and Solutions

- None

FY 2021 Q2 Output Results

Because IDDS suspended its surveillance activities, M&E data were not collected for FY 2021 Q2.

INDONESIA

Quarterly Highlights

- The FY 2021 work plan was approved on March 25, 2021.

Success Story:

IDDS Recognized for COVID-19 Response in Indonesia (See Annex B for full story)

USAID's IDDS project has received an award for "the excellent support to the Ministry of Health's COVID-19 testing program" by USAID in Indonesia.



Surveillance Highlights:

- Collaborated with the MOH, Ministry of Agriculture, and Ministry of Environment and Forestry, along with international partners, to raise awareness of the Nipah virus through an online seminar on February 6, 2021. The seminar communicated the risks associated with emerging infectious diseases, with a focus on the Nipah virus, and shared the virus's potential to impact Indonesia. The seminar was streamed on Zoom and YouTube, with 1,266 participants.
- Provided technical assistance the Technical Working Group on "Detection, Surveillance, and Response to Cross-Sectoral Zoonosis/ EIDs and AMR" to finalize five policy briefs, which were validated by the Director General of Disease Prevention and Control at the MOH and submitted to the Kemenko PMK this quarter. The policy briefs were on the following:
 - Establishment of cross-sector technical coordination sub-working groups
 - Four-Way Linking Revitalization
 - Strengthening the One Health Laboratory Network
 - Development of Cross-sectoral Integrated Surveillance
 - Operationalization of SIZE
- Provided financial and coordination support to the Kemenko PMK to coordinate a meeting to develop the SIZE roadmap and receive specific inputs on informatic technology and regulatory aspects of the roadmap. Sixty-two participants attended the meeting, including the Coordinating

Ministry for Human Development and Cultural Affairs, MOH, Ministry of Agriculture, Ministry of Environment and Forestry, and Ministry of Communication and Information.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Delays in work plan approval led to delays in implementation of some activities. The final work plan necessitated additional harmonization with the Government of Indonesia (GOI) fiscal year work plan	IDDS resumed activities and closely coordinated with the GOI and other international partners to disseminate and re-synchronize work plans with the GOI work plans and find efficiencies across partner budgets, particularly those related to One Health. New timelines have also meant an opportunity to plan national and subnational activities around the fasting month of Ramadan (April 13 to May 13, 2021).	IDDS must closely coordinate with partners to ensure that activities, especially those related to One Health, can resume rapidly and effectively when possible.	Addressed
The GOI was delayed in disseminating the five IDDS-supported policy briefs to relevant ministries beyond the initial cross-sector coordination meeting that was held in Q1 and the letter requesting the same, which was submitted to the MOH on January 18, 2021.	IDDS has made a plan with the Kemenko PMK to financially support and coordinate an online AMR meeting in April 2021, during which policy briefs will be disseminated to relevant ministries during the cross-sectoral coordination meeting.	IDDS worked with the highest echelon staff directly at the Kemenko PMK to accelerate implementation of follow-up activities related to dissemination of the policy brief package.	In progress
Handover of SIZE from FAO to the Ministry of Agriculture has been pending since September 2020. The GOI had requested IDDS support for this activity following transition, but this is likely to be further delayed. Delays in work plan approval also delayed the training of trainers on SIZE.	IDDS is collaborating with FAO and implementing partners through informal meetings to slowly transition activities while awaiting the official handover to the Ministry of Agriculture by FAO.	There needs to be intensive and regular communication to monitor progress and resolve existing problems.	In progress

FY 2021 Q2 Output Results

0



People
trained

0



SOP, plans, and
guidelines
developed or disseminated

0



Supportive
supervision visits conducted

3



TWG
meetings held

Electronic reporting systems (1)
and surveillance integration (2)

0



Items
procured

0



Pilots
conducted

0



Assessments
completed

KENYA

Quarterly Highlights

Diagnostic Highlights:

- Conducted sensitization meetings on AMR surveillance and microbiology pre-analytics as part of continuous medical education (CME) for 154 clinicians and other health professionals at 5 IDDS-supported hospitals: Bungoma County Referral Hospital, Malindi Sub-County Hospital, Murang'a County Referral Hospital, Nyeri Teaching and Referral Hospital, and Kitale County Referral Hospital. During the meetings, hospital microbiology laboratory teams showcased their capacity to conduct bacteriology testing and shared data on organism identification and antimicrobial susceptibility testing. The clinicians expressed enthusiasm for bacteriology testing following the meetings. The anticipated impact of the CME is that clinicians will refer more specimens to the microbiology laboratories for AMR testing, which has been a challenge in Kenya. IDDS will continue monitoring laboratory bacteriology services utilization to determine the impact of the CMEs.
- In FY 2021 Q2, all 5 laboratories supported by IDDS had the necessary cadre of staff to perform diagnostic test for their tier and were able to perform AST per their tier level (up from 0 at baseline in FY 2019), and all 5 laboratories are participating in QMS.

Surveillance Highlights:

- Performed a data quality audit (DQA) on March 15, 2021, at the five supported surveillance sites: Bungoma County Referral Hospital Laboratory, Malindi Sub-County Hospital Laboratory, Murang'a County Referral Hospital Laboratory, Nyeri Teaching and Referral Hospital Laboratory, and Kitale County Referral Hospital Laboratory. Participants included representatives from the surveillance sites, the NPHL, and the NASIC. The DQA helped sites identify barriers to generating and using data to inform decision-making at surveillance sites, and also to developing data quality improvement plans. This is the first time the country has ever implemented a DQA of AMR data.
- Provided technical and financial support to train 15 laboratory managers, heads of microbiology/bacteriology bench, and antimicrobial stewardship coordinators across the five sites on preparing and analyzing AMR surveillance data with the NPHL M&E team. Participants learned the need for high-quality data for decision-making; how to produce, collect, and use quality surveillance data; and practical skills, such as preparing basic descriptive statistics, drug-bug combinations, and charts displaying sensitivity patterns.

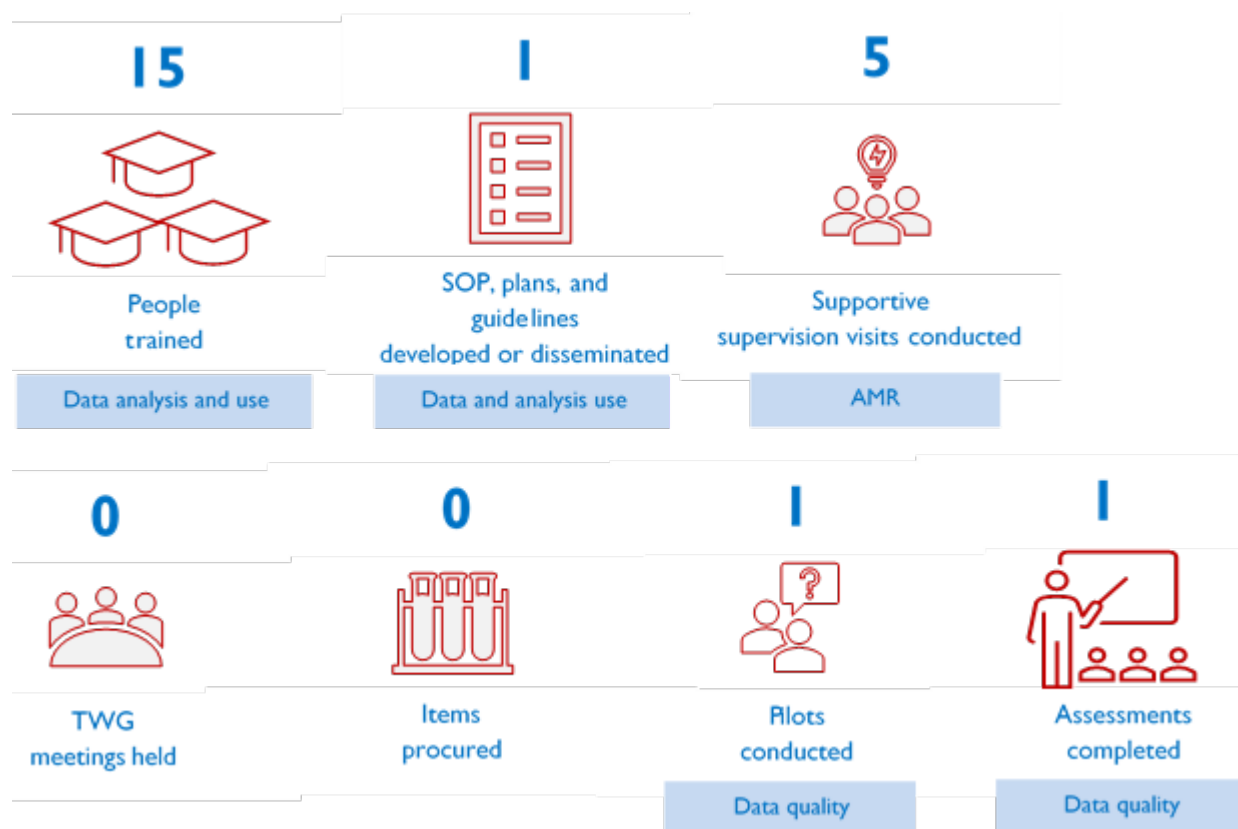
Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
IDDS had planned to support training and mentoring of the Nyeri County Referral Hospital Laboratory team on molecular testing techniques after the molecular testing	IDDS remains in close contact with the NPHL, Nyeri County Hospital Laboratory (where equipment will be installed), and Abbott (which will install the equipment). IDDS has	Remain in close contact with stakeholders to ensure rapid start of activity when possible.	In progress

Problem	Resolution	Lessons	Status
platform was installed by the NPHL. This activity had been carried over from FY 2020 Q3 but cannot be completed until the molecular testing platform is installed by the NPHL. There is not currently an installation date.	provided technical assistance to the laboratory to complete all necessary pre-installation modifications. IDDS also developed training materials and SOPs for use of the molecular platform to use for training laboratory staff after the equipment is installed. IDDS is on standby to resume this activity following equipment delivery.		
The National AMR Surveillance training, developed using IDDS financial, technical, and logistical support in year one, was created to be a multi-day, in-person training. However, to make the training more widely available, IDDS is transitioning it to an online, self-paced training in FY 2021. The extensive training materials as initially developed were not compatible with the MOH online e-learning academy.	IDDS co-sponsored a five-day workshop with the USAID-funded University of Nairobi Health IT project to format the AMR surveillance training materials into a form that is compatible with the MOH eLearning platform specifications. IDDS is finalizing materials, audio, and video so the materials can be submitted to the MOH e-learning content vetting committee and be hosted on the academy. The unexpected benefit is that the training will now be able to be accessed by a wider audience, across human and animal health sectors, and contribute to AMR prevention and containment efforts in the country.	Strategic partnership and co-sponsorship of the training with the USAID-funded Health IT project has helped IDDS reduce spending on this activity. IDDS also leveraged the existing relationship between the Health IT project and the MOH Division of Health Information System to quickly format materials and obtain necessary approvals to post online.	In progress
The Malindi surveillance site is unable to pay accreditation fees due to the expanded scope, which includes bacteriology services. Nyeri does not have enough resources to cover the increase in accreditation fees due to bacteriology services now being part of	IDDS met with the laboratory and county leadership to see whether a solution was possible. IDDS has planned a follow-on meeting with county leadership, including the county director of health services, chief officer for health services, and the hospital medical superintendent, in Q3, to find a solution to the lack of		In progress

Problem	Resolution	Lessons	Status
its service package this year and will only have accreditation for its bacteriology services in the next year.	financial resources. IDDS is also exploring the possibility of paying for accreditation of bacteriology services if an alternative solution does not present itself.		
IDDS has not yet identified a partner to implement WHONET in the country. This has led to a delay in conducting the sensitizing, because the actual implementation will require the partner to carry out activities.	IDDS is engaging with the NASIC and other partners to find a solution. IDDS used the data analysis training to highlight the potential benefit WHONET would bring in simplifying the analysis for the sites. This was taken up seriously by the NASIC for consideration. IDDS will continue to advocate this, including during the AMR surveillance TWG meeting in Q3.		In progress
Prolonged industrial actions, such as staff strikes, significantly affected workload and testing volumes at the Kitale, Bungoma, and Malindi surveillance sites.	IDDS continued to focus on the two sites that were not significantly affected but remained in touch with the management of the other affected sites to track progress. IDDS began providing technical assistance as soon as the issue was resolved.		Addressed

FY 2021 Q2 and Output Results



LIBERIA

Quarterly Highlights

- The third submission of the FY 2021 work plan was submitted to USAID on January 15, 2021. Contingent approval was received on January 29, 2021.

Success Stories:

Liberia's G.W. Harley Hospital Laboratory Upgrade Completed and Ready for Expanded Testing

(See Annex B for full story)

On April 2, USAID's Mission Director in Liberia, Sara Walter, officially handed over the newly renovated and equipped G.W. Harley Hospital laboratory to Liberia's Minister of Health, Dr. Wilhelmina Jallah.

Building Bacteriology and Antimicrobial Susceptibility Testing in Liberia (See Annex B for full story)

USAID's IDDS project is building the capacity for bacteriology testing in three county referral laboratories (Tellewoya in Lofa, Phebe in Bong, and G.W. Harley Hospital Laboratory in Nimba) in Liberia.



Diagnostic Highlights:

- Renovated and equipped the G.W. Harley Hospital Laboratory in Nimba county this quarter. The renovation enhanced laboratory diagnostic testing, including testing for priority pathogens and AMR, and expanded the workspace to hold equipment needed to provide basic clinical tests, including bacteriology. IDDS also supported the procurement of equipment (air conditioners),

reagents, and commodities that will be used to provide general clinical tests at the G.W. Harley Hospital.

- Conducted the Stepwise Laboratory Quality Improvement Process Towards Accreditation audits on facilities enrolled in Strengthening Laboratory Management Towards Accreditation in the three IDDS-supported counties. These audits will ensure that the quality improvement plans are being followed in the county facilities. Six additional hospitals were enrolled in SLMTA based QMS implementation this quarter leading to a total of 9 sites participating in a quality management scheme.
- Initiated the distribution and installment of equipment (e.g., incubators, autoclaves, microscopes, distillers) based on the equipment procurement plan. IDDS also handed over equipment to Tellewoyan Hospital Laboratory in the presence of the county health team. This equipment will be used for the initiation of bacteriology at the facility.
- Conducted a nine-day training on bacteriology, in conjunction with the National Diagnostic Division and the National Public Health Reference Laboratory. Six laboratory technicians from Tellewoyan Hospital (Lofa), Phebe Hospital (Bong), and G.W. Harley Hospital (Nimba) and three IDDS diagnostic specialists were trained on basic bacterial culture and antimicrobial sensitivity testing. The training included both didactic and practical training sessions. The training of laboratory personnel working in microbiology laboratory is critical for quality diagnostic service.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
There was a delay in the completion of the G.W. Harley Laboratory renovations because there was a delay in the payment to the construction vendor.	The IDDS team followed up with the payments to make sure they were in progress. After the payment was made, the vendor completed the renovations.		Addressed
A prolonged work plan approval process led to delays in implementation. Due to funding constraints, a limited number of prioritized activities were approved in a mini work plan on January 29, 2021.	Delays in approval of the work plan resulted in delays in implementation of activities, which affected the project deliverables and timelines.	.	Addressed, for Q2 only
Disruption of the global supply chain system due to COVID-19 resulted in delays in delivery of procured items by suppliers, which led to delays in implementing bacteriology testing at three county hospital laboratories.	IDDS closely followed up with the suppliers. Bacteriology testing began in March 2021 in three sites (Linguere, Guediawaye, Tivaouane) after the delay. All the sites now have SOPs in place, and two of them are part of a QMS program.		In progress

FY 2021 Q2 Output Results



MADAGASCAR

Quarterly Highlights

Diagnostic Highlights:

- IDDS supported the evaluation of the national public health surveillance system, which in FY 2021 Q2 included finalizing the evaluation protocol and field survey plans, pretesting the data collection tools, collecting and analyzing data, and collating the final evaluation report. The evaluation encompassed all levels of the health system, from the peripheral (district and community), central, and intermediate (regional health directorate) levels, to include 61 basic health centers, 4 reference biological surveillance centers, and 10 hospital centers. Results from the evaluation were presented to in-country stakeholders during a workshop in February
- Provided financial support to organize meetings with stakeholders (*La Direction de la Pharmacie, des Laboratoires et de la Médecine Traditionnelle, Réseau des Laboratoires à Madagascar* biologists) to support the development of the first draft of the strategic plan for laboratories (*plan stratégique des laboratoires*).
- Procured a PCR platform to be installed in the Mahajanga laboratory. IDDS will complete installation in the PZaGa University Hospital Center laboratory.

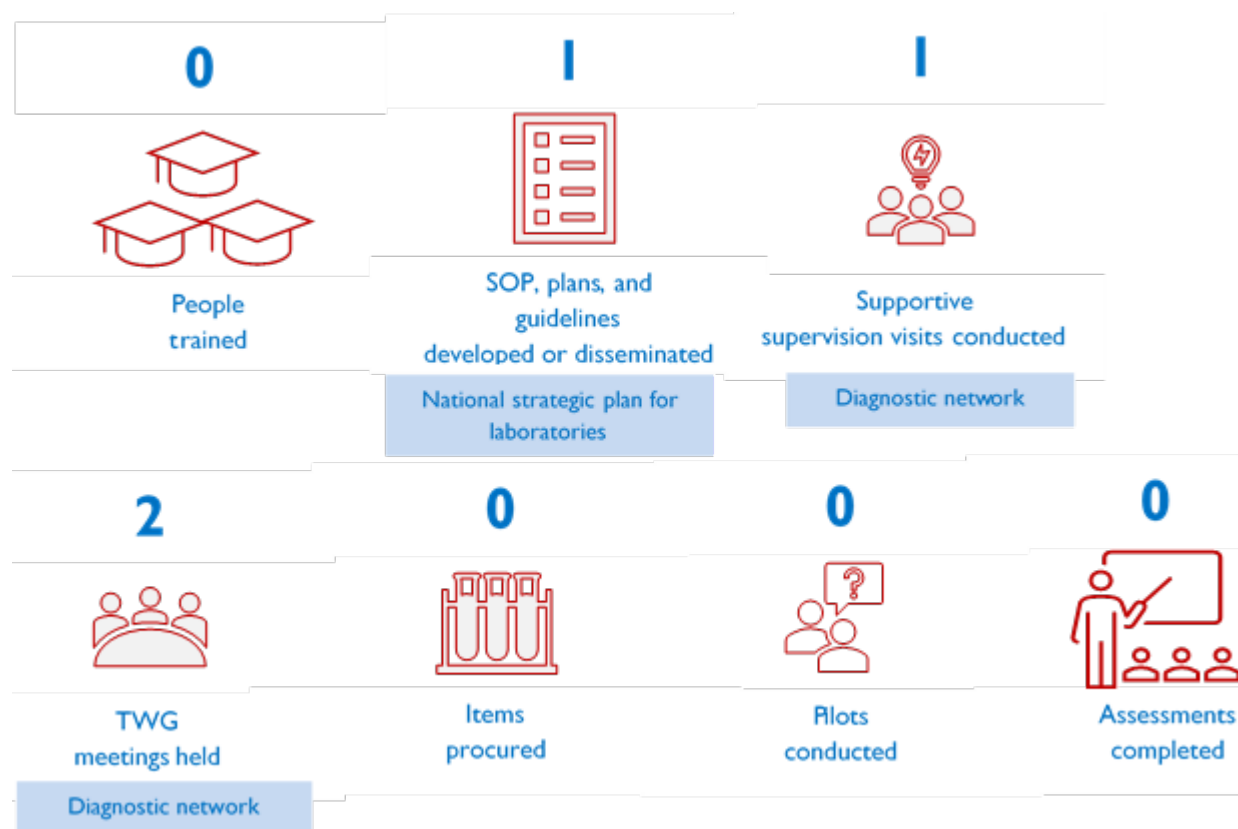
Surveillance Highlights:

- Implemented a broad surveillance system evaluation with key stakeholders and generated a technical report to document the findings.
- Reviewed and finalized the National Surveillance Strategic Plan.
- Provided technical and financial support for the elaboration of three monthly surveillance bulletins (#28, #29, and #30) and disseminated them to stakeholders via e-mail.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
IDDS had planned to support training for local laboratory staff in the Mahajanga region to build testing capacity for COVID-19 and other infectious diseases. However, this necessitates that the PCR platform be installed, and delayed procurement and import processes will shift activity timelines.	The IDDS team is working with IDDS HQ and the PCR platform provider to try to speed up the procedures.	Close collaboration with suppliers is important.	In progress

FY 2021 Q2 Output Results



MALI

Quarterly Highlights

Diagnostic Highlights:

- Supported the *Direction de la Pharmacie et du Medicament* to map 124 diagnostic facilities in the Kayes, Ségou, and Sikasso regions, which means that more than 80 percent of the country's diagnostics facilities have been mapped. This will help inform development of the regional diagnostic network and the regional specimen referral and transport system in IDDS-supported regions in line with WHO Benchmark 7.3: Effective national diagnostic network is in place.
- Conducted biosafety/biosecurity assessments at the Ségou regional hospital laboratory and the national public health institute laboratory, provided improvement plans, and offered onsite coaching to address the most pressing gaps. The national biosecurity/biosafety manual being developed will be a reference for implementing biosecurity/biosafety activities at diagnostics facilities in the country.

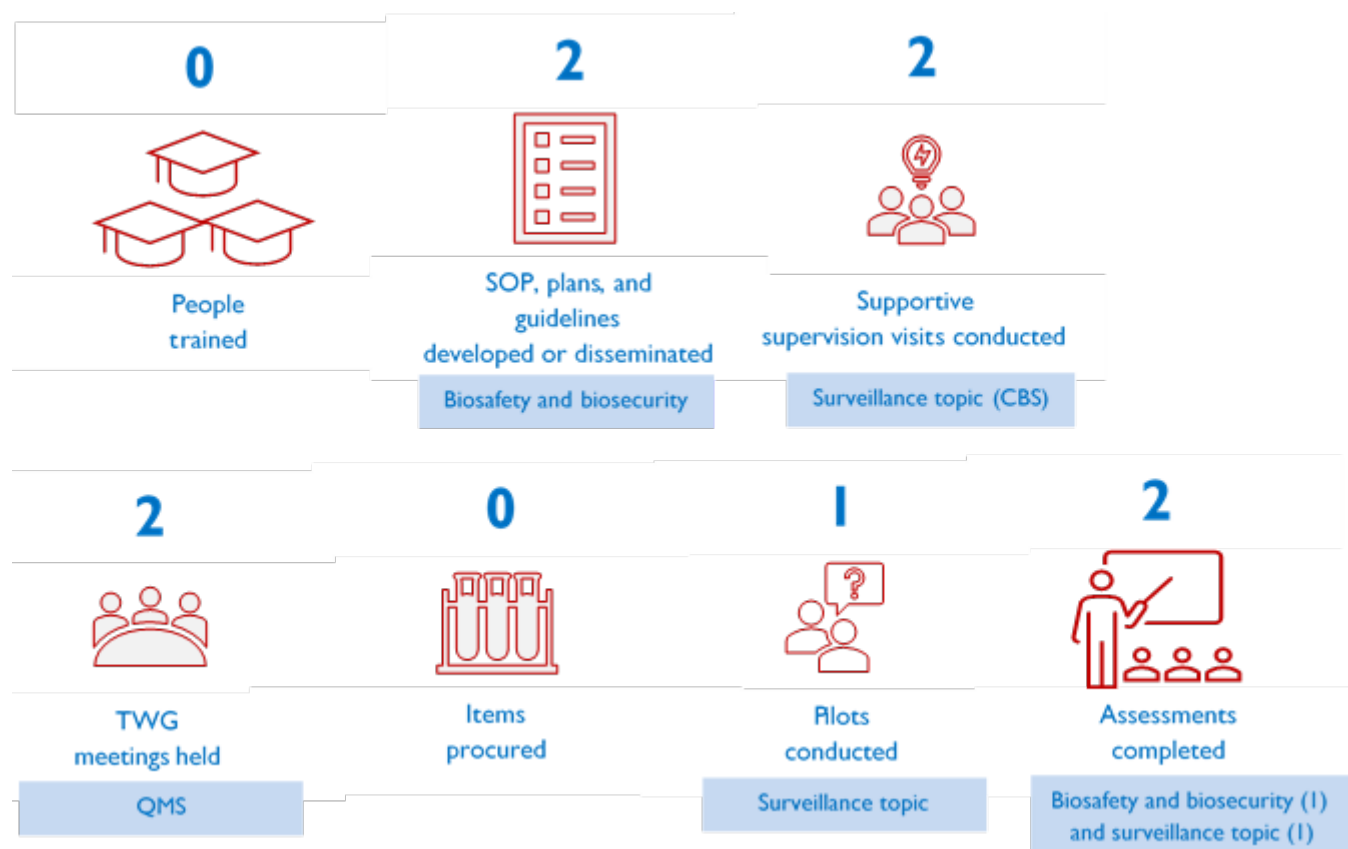
Surveillance Highlights:

- Conducted two rounds of post-training supervision visits in January 2021 in Kadiolo health district, Sikasso region, and one round of post-training supervision visits in March 2021 in Kati health district, Koulikoro region, to standardize CBS and implementation. The supervision visit in Kadiolo was combined with a pilot of the CBS toolkit. These steps will inform the CBS extension plan, for which a workshop is being planned in Q3.
- Conducted weekly surveillance data review through DHIS2 starting at the national level at the *Direction Générale de la Santé et de L'Hygiene Publique* on February 15, 2021, then in Sikasso on February 22, 2021, and in Ségou on March 30, 2021. The weekly review of surveillance data reported through DHIS2 gives the data manager at the national level and the two IDDS-supported regions (Ségou and Sikasso) the opportunity to provide feedback to staff at the health facility level on the data reported, allowing staff to correct the data on a weekly basis without waiting for the end of the month or quarter. The review also encourages data collectors to share surveillance data through DHIS2 instead of using only the Excel sheets.
- Provided financial and technical support to the *Direction Générale de la Santé et de L'Hygiene Publique* to produce a bulletin in January 2021.
- Developed an action plan and report on identified gaps in real-time surveillance information sharing. Gaps across all domains of interoperability were identified: governance and leadership (lack of strategic documents); human resources (lack of career plan, high rate of turnover); and technology (lack of documentation defining the role of different structures, no routine maintenance plan, lack of global back-up system in case of catastrophe). Findings from the report will serve as a reference for the government and partners to improve information sharing in Mali.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
IDDS had planned to conduct onsite support to the INSP to implement QMS activities, but these have been delayed due to COVID-19.	IDDS has asked the Mission GHS advisor to hold joint meetings with INSP's Direction to discuss completion of QMS activities.	Routine activities should be planned such that virtual facilitation is possible.	In progress

FY 2021 Q2 Output Results



SENEGAL

Quarterly Highlights

Success Stories:

Senegal's Guediawaye and Linguere Laboratories restart AMR detection and surveillance activities through support from IDDS (See Annex B for full story)

Drug-resistant strains of common diseases, known as antimicrobial resistance (AMR), threaten to undermine the huge progress that antibiotics have made in medical treatment.

IDDS Improves Priority Diseases Reporting in Senegal with Training for 234 Nurses and Midwives on DHIS2 (See Annex B for full story)

USAID's Infectious Disease Detection and Surveillance (IDDS) project trained 234 newly recruited nurses and midwives in the use of District Health Information Software, version 2 (DHIS2), from December 1, 2020, to March 25, 2021, in Senegal's Saint-Louis and Tambacounda regions.

Diagnostic Highlights:

- With IDDS support, national SOPs and tools for AMR surveillance were validated by the Directorate of Laboratories of the MOH.
- Provided technical assistance to the Directorate of Laboratories to develop and validate AMR training materials.
- To expand AMR detection, IDDS procured equipment, reagents, and supplies/consumables for the seven IDDS-supported diagnostic facilities undertaking AMR detection. Despite the memorandum of understanding (MOU) between IDDS and the Directorate of Laboratories still undergoing revisions, the Directorate of Laboratories gave permission for the project to procure these testing items in 2021 and, as a result, three of the seven sites were able to resume antimicrobial susceptibility testing in March 2021. Two of these three sites are now also participating in a Quality Management Scheme. The four other facilities are now able to undertake AMR surveillance following IDDS support.
- All seven IDDS supported AMR sentinel sites now have the correct reagents for AST and none of them had any stock-outs of these reagents or supplies in last 90 days. This is an improvement from the end of FY 2020 when 0 of the 7 sites had an adequate commodity management system. To prevent future stock-outs, the seven labs are now charging small user fees to pay for and sustain a regular supply of reagents for AST.

Surveillance Highlights:

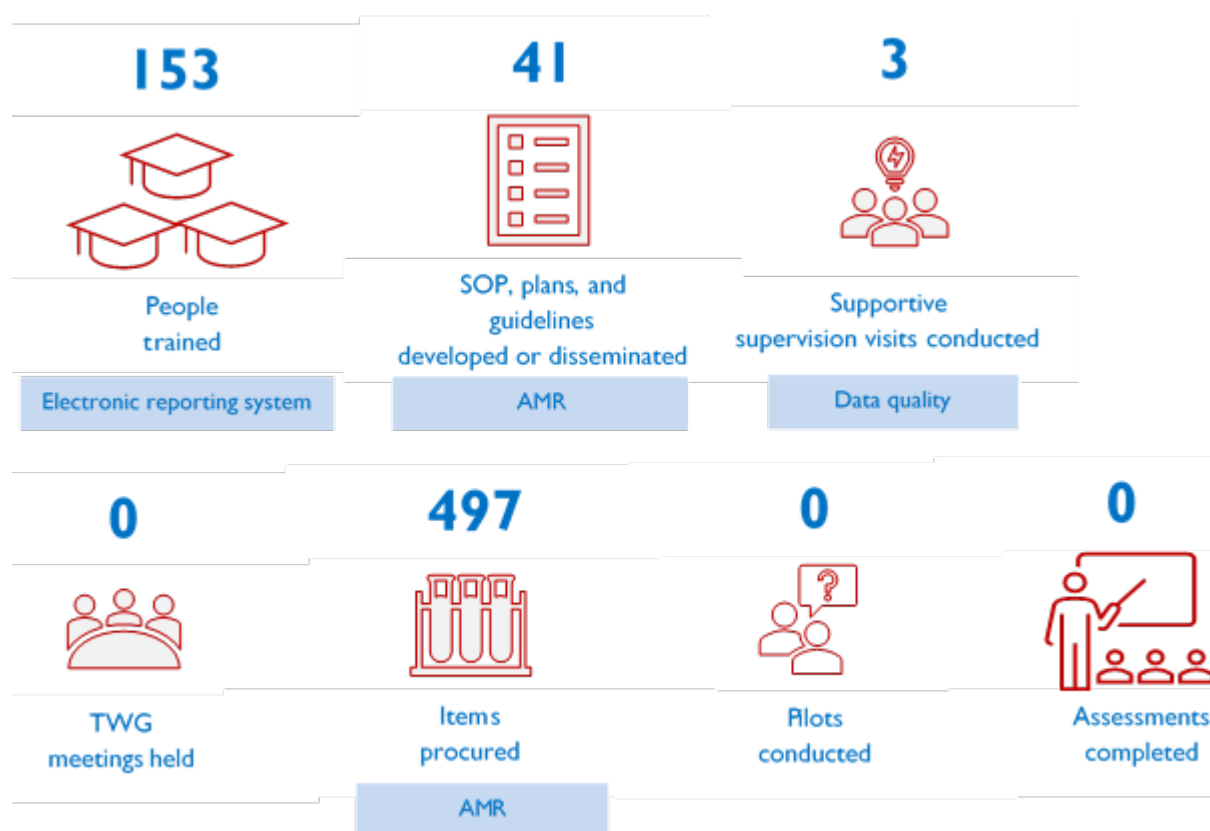
- Continued to roll-out training on DHIS2 reporting on routine surveillance data to six additional health districts (Bakel, Kidira, Maka, Dagan, Richard Toll, and Saint-Louis) in Saint-Louis and Tambacounda medical regions. In this quarter, 153 nurses and midwives from the 6 districts were trained, bringing the total for the fiscal year to 246 nurses and midwives trained across 10 health districts.

- Conducted supportive supervision sessions across 10 districts to evaluate the quality, including completeness and timeliness, of data reported into DHSI2 by Dagana, Richard Toll, and Saint-Louis health districts in Saint-Louis region. IDDS used the AMR-focused supportive supervision tool the project had developed during FY 2020, which had since been validated by the MOH Directorate of Laboratories. Based on the visit, gaps and training needs were identified and rectified. IDDS supported the facilities to implement recommendations and improve the quality of reported data.
- Six of twelve IDDS-supported health districts trained by IDDS submitted 281 reports this quarter on community-based surveillance (CBS) data in line with national guidelines and includes animal and human health data using a One Health approach. In 4 of the 6 health districts, 98 signals from community health volunteers were verified by the nurses and livestock agents whom IDDS trained in CBS.
- Supported two data review meetings in January 2021 in the Tambacounda and St. Louis regions to review and analyze routine surveillance data generated from health districts on priority diseases from the prior quarter (October–December 2020).

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
The Directorate of Laboratories recommended that planned in-person workshops should be held virtually, although there are no longer restrictions on organizing in-person meetings.	All the workshops were organized online. This is less practical for validating national SOPs and training materials, but it was achieved.	When completing activities online, it is better to request that multiple sessions be held.	Addressed
Delay in establishing an MOU with the Directorate of Laboratories, which became a need following a new legal requirement for AMR labs in Senegal.	Efforts to establish an MOU are ongoing. The Directorate of Laboratories reviewed the MOU, provided comments, and sent it to IDDS to revise. The ICF and PATH legal teams adjusted the MOU and sent it back to the DL, which now has it for final signature.	It is important for IDDS to stay abreast of new laws and regulations so the project can remain compliant with local processes.	In progress

FY 2021 Q2 Output Results



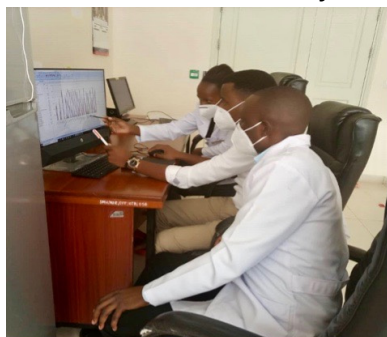
TANZANIA

Quarterly Highlights

Success Story:

IDDS Support Improves Antimicrobial Resistance Data Quality and Reporting at Tanzania's Regional Hospitals (See Annex B for full story)

Between December 2020 and March 2021, USAID's IDDS project supported Tanzania to initiate its national AMR surveillance framework.



Diagnostic Highlights:

- Collaborated with the NPHL and the MOH Medical Stores Department to develop a supportive supervision checklist for AMR sentinel sites. IDDS conducted supportive supervision visits with the MOH from March 8 to 12, 2021, to four laboratories: Temeke Regional Referral Hospital in Dar es Salaam, Morogoro Regional Referral Hospital in Morogoro region, Benjamin Mkapa Hospital in Dodoma region, and Maweni Regional Referral Hospital in Kigoma region. Eighteen laboratory staff received supportive supervision from three MOH staff from the Pharmaceutical Service Unit and two IDDS specialists. The supervisory team provided technical assistance on supply chain and logistical challenges and inventory management. The visits revealed important areas for improvement in the laboratory supply chain. IDDS developed action plans in consultation with the laboratories and government stakeholders that will serve as baseline toward stepwise improvement in the AMR supply chain management and help address the frequent stockouts.
- All four IDDS supported laboratories conducting AST (antimicrobial susceptibility testing) now have sufficient number of staff and surveillance skills to conduct routine AMR surveillance as evidenced by quarterly supervision on-site visits and mentorship that IDDS provided in this quarter. Staff from these four sites received prior training on AMR surveillance from IDDS and they take routine competency assessments as part of the EQA program, which includes AST and AMR reporting components.

Surveillance Highlights:

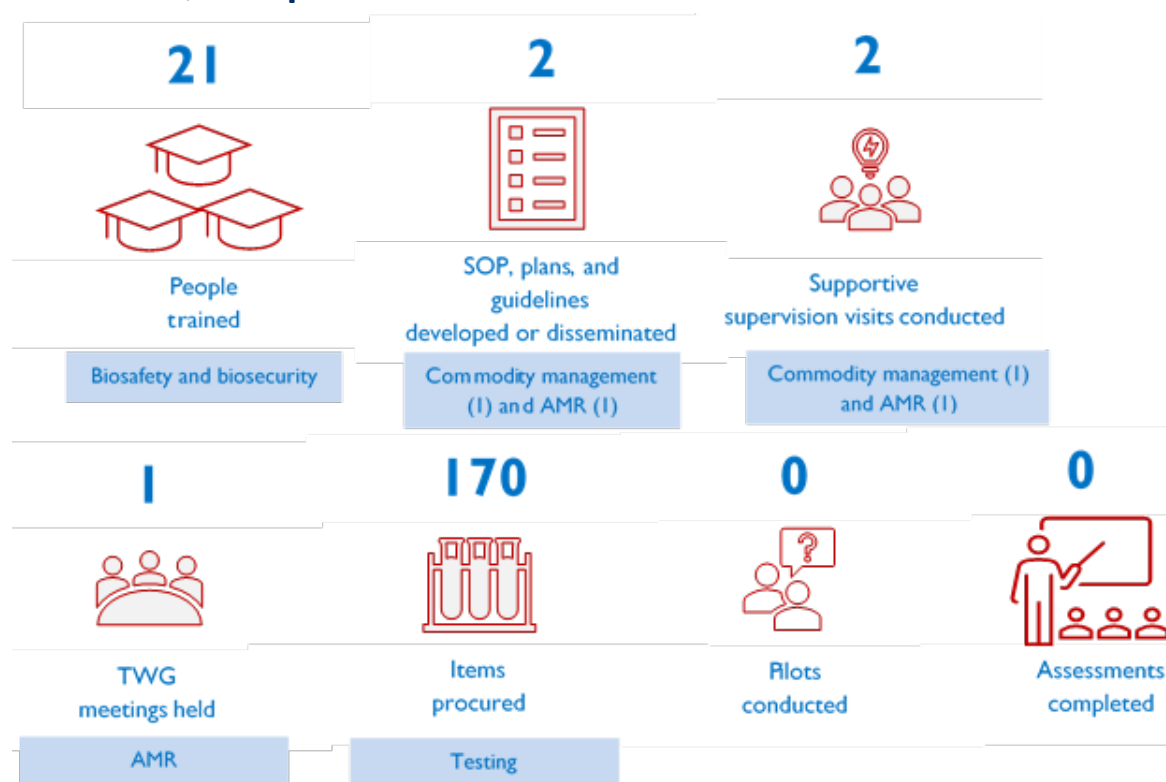
- The supportive supervision visits discussed above also included supervision for the laboratories' surveillance activities. Using a data reporting template developed by IDDS and WHONET (which IDDS had installed on IDDS-procured computers in Q1), IDDS advisors conducted data review meetings

with laboratory staff. During these review meetings, IDDS identified barriers and gaps, such as poor timeliness and completeness of AMR data being reported. IDDS technical advisors worked with the laboratory teams to troubleshoot these problems and create site-specific data quality improvement plans. These included technical assistance from IDDS for reviewing the data and IDDS support for printing and distribution of laboratory bacteriology registers to all the four sites. These activities built site-level capacity for capturing and reporting data.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
While collaborating with the NPHL, IDDS learned that the American Society for Microbiology had also begun work to develop a supportive supervision checklist for microbiology laboratories conducting antimicrobial resistance surveillance.	IDDS is working with the American Society for Microbiology to harmonize efforts because IDDS's aim is to support the development of a standardized national supportive supervision checklist, and harmonization will make the document more comprehensive and encourage use by other partners. These discussions are underway and will continue in Q3.	It is important to be aware of the other work happening in thematic spaces in which IDDS works. Not only does IDDS want to minimize duplication of effort, but collaborating with other implementing partners allows for synergies that could lead to more impactful outcomes of IDDS's work.	In progress

FY 2021 Q2 Output Results



THAILAND

Quarterly Highlights

Diagnostic Highlights:

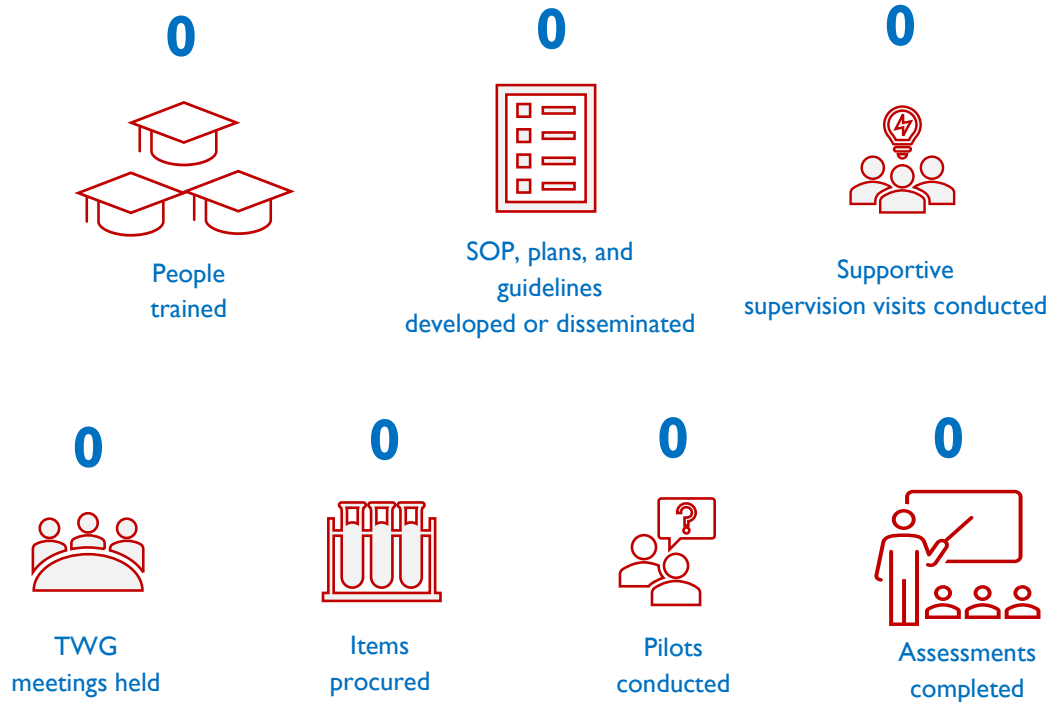
- Facilitated a video conference on January 25, 2021, on COVID-19 vaccine development and post-vaccine monitoring, and the impact of new virus variants. The conference was led by a professor from Australia, with 38 attendees from Brunei Darussalam, Myanmar, Malaysia, Vietnam, Singapore, Nepal, and Thailand, as well as key development partners, including representatives from the Defense Threat Reduction Agency, WHO Regional Office for South-East Asia, FAO, World Organisation for Animal Health, TUC, IDDS, USAID, the Thai Global Health Security Agenda Advisor, IQLS, CARPHA, National Institute of Animal Health (Thailand), and the National Institute of Health (Thailand). Video conferences between country members have helped promote information sharing and strengthened communication and linkages between country members.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Delays in work plan approval led to implementation delays.	IDDS team continued to support the FY 2020 carryover activities through Q2 with the carryover funds.		Addressed

FY 2021 Q2 Output Results

Sixty-seven people participated in the RPHL network this quarter. Six documents were uploaded and 123 documents were downloaded from the website. Additionally, 38 people participated in one technical session held via videoconference this quarter.



UGANDA

Quarterly Highlights

Success Stories:

IDDS Revitalizes Facility- and Community-based Surveillance for COVID-19 in Eastern Uganda (See Annex B for full story)

Uganda was experiencing extensive community spread of COVID-19 by October 2020, and the established COVID-19 treatment centers were overwhelmed with the number of cases.

IDDS Supports Uganda's Ministry of Agriculture Animal Industries and Fisheries First Ever International Standards Organization Training (See Annex B for full story)

In Uganda, the Animal Health Department, under the Ministry of Agriculture Animal Industries and Fisheries (MAAIF) is tasked with investigating animal diseases and outbreaks in the field.

Diagnostic Highlights:

- Finalized, validated, and submitted tiered testing standards, called the National Laboratory Diagnostics Guidelines for Priority Zoonotic Diseases, to USAID by meeting with stakeholders from relevant ministries and implementing partners from the animal, human, and environment sectors. The national diagnostic guidelines provide a framework through which IDDS and other implementing partners will improve integration of appropriate diagnostic network components among the seven priority zoonotic diseases in animal and human laboratories and subsequently improve the International Health Regulations benchmark of having an effective national diagnostic network in place.

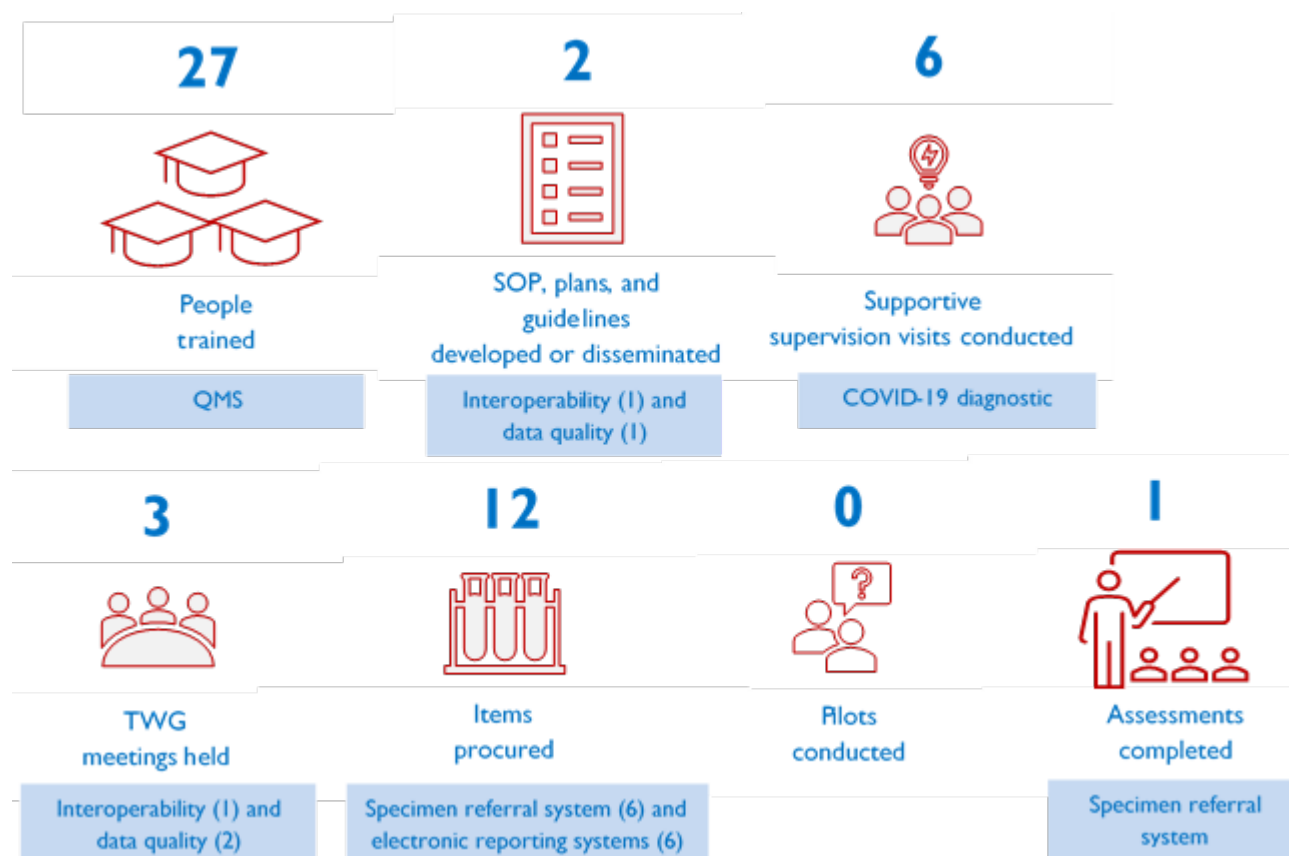
Surveillance Highlights:

- Conducted supportive supervision visits in March 2021 to evaluate the impact of the December 2020 trainings on COVID-19 held for health workers, village health teams, and district officials. Findings are included in the success story (Annex B).
- Deployed 10 smart phones and 2 tablets to the 3 districts in March 2021 to support real-time data entry and data submission in the region as well as support the Tororo mobile laboratory.
- Held a workshop with key stakeholders to review and finalize the draft national Strategy for Coordinated Surveillance of Priority Zoonotic Diseases. The surveillance strategy specifies a roadmap to a comprehensive surveillance system for preparedness, detection, and response to the seven priority zoonotic diseases and will provide a framework for IDDS and other implementing partners to operationalize a coordinated and integrated surveillance system.
- Completed guidelines and a tool for routine data quality assessment in animal health surveillance sites and worked with key stakeholders from the animal health sector, including the Ministry of Agriculture, Animal Industry and Fisheries, Uganda Wildlife Authority, and FAO, and some experts from the MOH who represented the human health sector, to review and validate document.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
COVID-19 supportive supervision visits were briefly delayed in January 2021 due to political unrest surrounding the Ugandan presidential election.	After normal conduct of business resumed, IDDS quickly resumed activities to make up for lost time.	Periods in which implementation is paused due to external factors can be used to strategize on how to resume/expedite implementation when the team is able to.	Addressed

FY 2021 Q2 Output Results



VIETNAM

Quarterly Highlights

Success Story:

IDDS Support Starts Event-based Surveillance Using a One Health Approach in Two Pilot Provinces in Vietnam (See Annex B for full story)

Integrated human and animal health event-based surveillance (EBS) reporting will start for the first time in Vietnam's Dong Thap and Thai Nguyen Provinces in April 2021. The new integrated EBS reporting was made possible with IDDS support and the training of more than 1,100 staff across 21 districts.



Diagnostic Highlights:

- IDDS incorporated feedback, edited, and finalized the Animal Health Laboratory Capacity Assessment in 4 Provinces of Vietnam report. This report presents findings from an assessment of the capacities of four veterinary laboratories in Thai Nguyen, Ha Giang, Binh Dinh, and Dong Thap provinces, and concluded that all four assessed laboratories exhibited low and very low levels of veterinary laboratory capacity and biosafety. IDDS shared the final version of the report with the

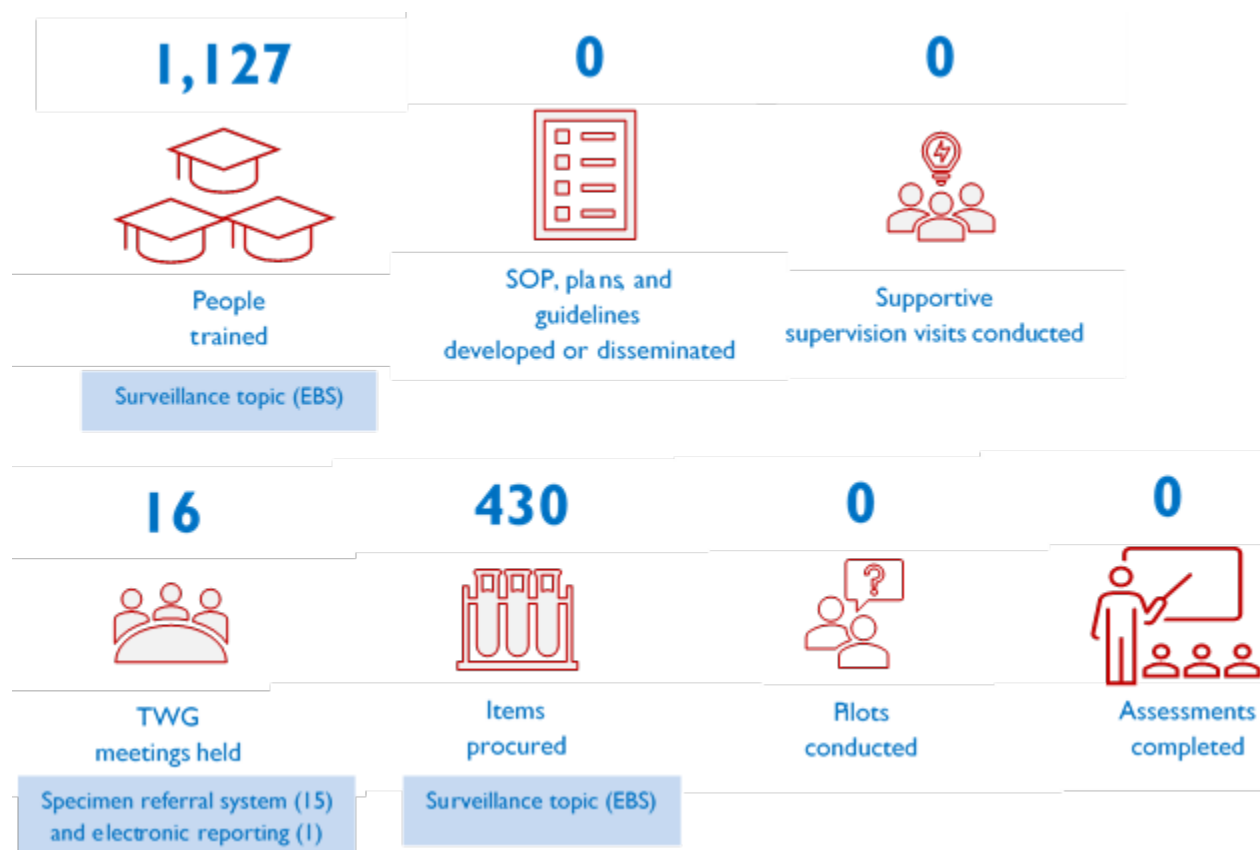
Department of Animal Health and with Regional Animal Health Offices (who were closely involved in developing the technical content), enabling laboratory leaders and local authorities to use the results of this assessment to develop laboratory upgrade and improvement plans, which will be a key step toward improving the capacity to detect priority pathogens in these provinces.

- At the request of the USAID Mission, IDDS also prepared a roadmap for developing a nation-wide integrated human health specimen referral system and presented this to the Mission to use as a tool to advocate resources to support completing the design of the referral system and piloting it in select provinces.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
A new wave of COVID-19 transmission in Vietnam started in late January 2021 and continued through February, resulting in restrictions in travel and in-person meetings and events. This caused delays in EBS training for local staff at district and commune levels.	Preparatory activities were carried out through telecommunication channels during the travel restriction period. The training sessions for 17 districts, however, had to be postponed until March 9, 2021, because it is not practical to conduct EBS training online to local staff at district and commune levels. This wave of COVID-19 transmission has been under control since the second week of March 2021.	COVID-19 is unpredictable, so any project activities that require travel and gatherings of people should be organized as soon as the COVID-19 situation allows.	Addressed

FY 2021 Q2 Results



TB FY 2021 Q1 Achievements

CORE TB

Quarterly Highlights

Diagnostic Highlights

- IDDS submitted a first draft of the FY 2021 Core TB work plan to USAID on March 5, 2021 and received feedback on March 31, 2021.
- IDDS completed testing and refinement of the web and mobile version of the TB-NET Tool. This version will be used to conduct future TB DNAs using tablets or mobile phones to capture data during site visits.
- IDDS started to develop training materials for introducing Truenat rapid diagnostic test into the national diagnostic network.
- IDDS reviewed the key findings and recommendations from the previously conducted Vietnam TB DNA self-assessment and verification visit with the NTP to obtain feedback. The NTP's inputs are helping the team finalize the report.
- In Zimbabwe, the Driving Xpert Optimization activity, which ended on March 31, 2021, contributed to faster maintenance of GeneXpert modules, remote instrument diagnosis, and improved transparency and accountability. The activity enabled Cepheid, SystemOne, and the NTP to jointly design and implement a holistic information plan around the GeneXpert network. Involvement of Cepheid increased the proportion of functional modules from 81 percent to 93 percent, and remote or onsite troubleshooting improved device connectivity levels. Lessons learned from this activity were drafted in Q2.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
The COVID-19 pandemic and subsequent lockdowns of countries, regions, and cities has caused 1 million missing TB cases in high TB burden countries and 1.5 million missing TB cases globally. Disruption of TB services has caused a drop in TB notifications, from 25 percent to 50 percent over a three-month period.	IDDS rapidly developed plans to mitigate the impact of the COVID-19 pandemic on the TB epidemic with USAID support. IDDS supported countries to implement and scale up mitigation plans to improve TB diagnostics during the COVID-19 pandemic. The mobile/web-based version of the TB NET tool will help to conduct the remote TB DNA.	There is a need to include COVID-19 restrictions and anticipate and plan accordingly. The Core TB and TB country work plans included mitigation plans based on the COVID-19 pandemic and restrictions.	In progress

BANGLADESH

Quarterly Highlights

Diagnostic Highlights

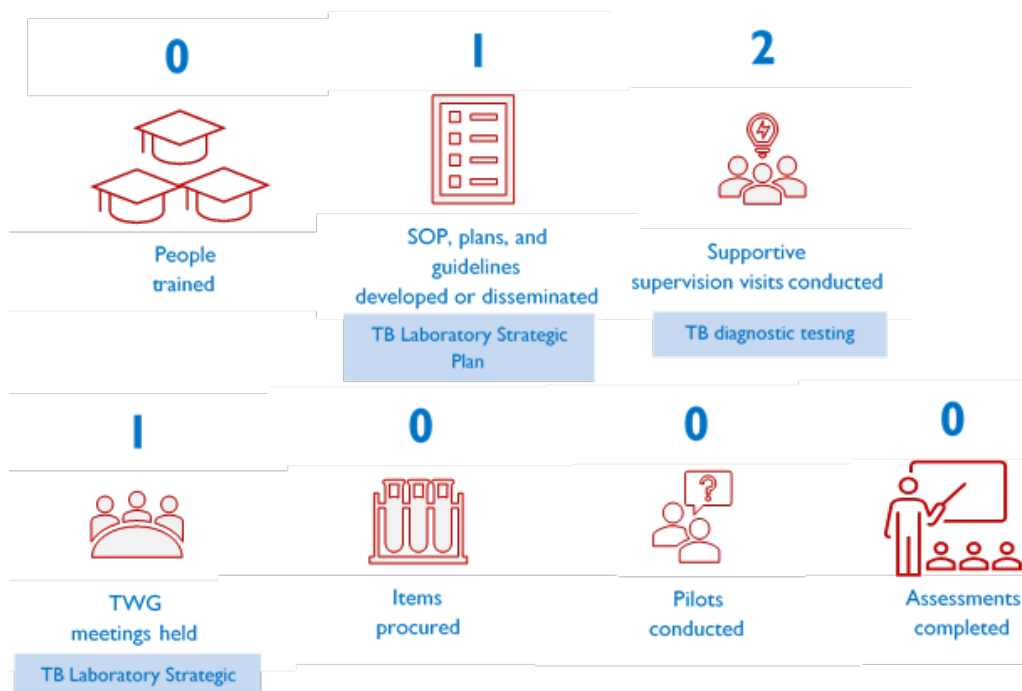
- Provided technical support to the NTP to organize a training of laboratory staff on LPA for machines that had been previously installed at the Sylhet BSL-3 Laboratory. The laboratory began providing LPA services for testing second-line TB drugs in FY 2021 Q2. IDDS is currently developing a validation report on the use of LPA.
- Completed a site assessment of the Khulna Regional TB Reference Laboratory for expansion of liquid culture/DST and LPA and completed an inventory of TB equipment and the status of each at Khulna Regional TB Reference Laboratory.
- Prepared protocols for the pilots of Truenat and Xpert/MDT/XDR and shared with the NTP and USAID for consideration in planning next steps. After the pilots have been rolled out, they will generate crucial evidence to support the introduction of these innovative technologies that have the potential to expand access to rapid, molecular TB diagnostics.

Problems Encountered and Solutions

- None

FY 2021 Q2 Results

This reporting cycle, Bangladesh collected baseline, and FY 2021 Q1 and Q2 data. The data for Bangladesh are still undergoing review at the time of submission of this report draft. We will update when the data are validated.



BURMA

Quarterly Highlights

- The first draft of the FY 2021 work plan amendment was submitted on February 1, 2021.

Diagnostic Highlights

- Conducted supportive supervision visits to four GeneXpert sites in Yangon region (North Okkalapa General Hospital, Hlaing Tharyar Township TB center, Tharkata Township TB center, and Lower Myanmar TB center), where staff were mentored on GeneXpert testing and the use of GxAlert. IDDS also provided technical assistance on improving GxAlert connectivity.
- The IDDS senior TB diagnostic specialist worked with key technical staff from BSL-3 laboratories in January 2021 to develop action plans to support the NTRL.
- Prepared SOPs for DST of second-line TB drugs.
- Developed an outline for a chapter on infection control at subnational facilities that will be part of the national infection control guidelines. The outline has been shared with the NTP.
- Finalized the chest X-ray training curriculum and submitted it to the NTP for review and approval when the NTP resumes its normal functions.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
The coup d'état started on February 1, 2021, and quickly shut down all access to government facilities and staff, and most TB services have been suspended. Internet communications have been severely restricted, and there are ongoing concerns that they may completely shut down with no notice.	IDDS staff have been working from home while trying to respond to communications and perform remote work as connections allow. The work plan is being revised to try to continue some remote activities while ideas to continue supporting access to TB diagnostic services through alternate mechanisms are being proposed, possibly through private facilities. Ideas will be discussed with the Mission as communications allow.	This is a situation that is completely out of IDDS's control at this time, but lessons may be learned later as the situation evolves.	In Progress

FY 2021 Q2 Results

Due to the political situation in Burma, the country team was unable to compile data for this quarterly report. Attempts will be made to collect the data when conditions permit.

CAMBODIA

Quarterly Highlights

- The second draft of the FY 2021 work plan was submitted on January 8, 2021, and the third draft was submitted on January 21, 2021. The work plan was approved by USAID on January 25, 2021.
- Recruitment for the country team was ongoing this quarter. IDDS hired a diagnostic specialist and a consultant to support the regional advisor.

Diagnostic Highlights

- Coordinated discussions between CENAT and the USAID Mission in Cambodia on customizations needed for DataToCare, a TB diagnostic connectivity platform available from Savics. IDDS shared the list of required customizations with Savics, reviewed a quotation and timeline for implementation, and executed an agreement to start the customization and installation of DataToCare.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
It has been difficult to identify a chest X-ray expert to perform an assessment of the Telegram platform.	IDDS has extended the search to include international experts and is using its network to identify potential consultants.	For highly specialized technical positions, IDDS should conduct parallel searching both locally and internationally.	In progress

FY 2021 Q2 Results

There are no M&E data yet for Cambodia. IDDS Cambodia is still starting up and will collect baseline and FY 2021 Q2 data in the next quarter.

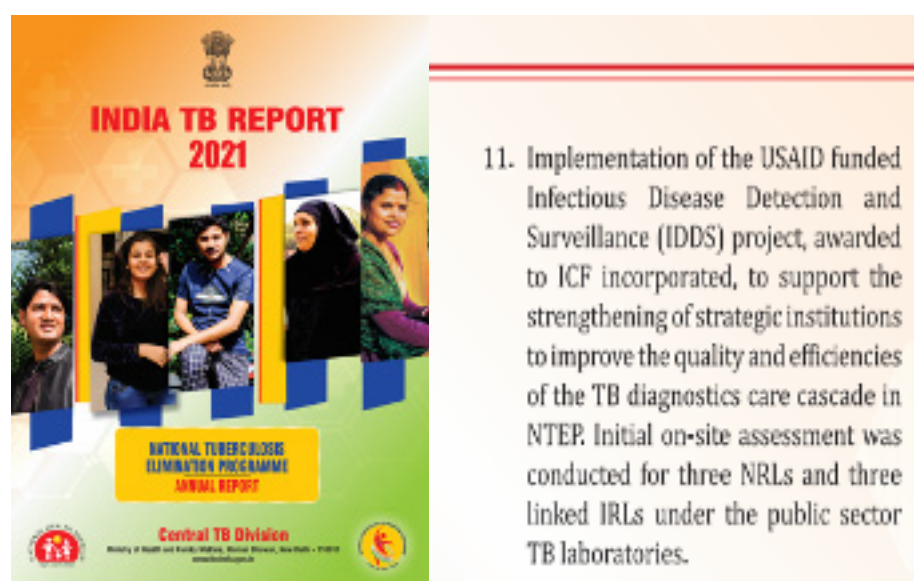
INDIA

Quarterly Highlights

Success Stories

IDDS Project Highlighted in India's "Jan Andolan for TB" Meeting and India Tuberculosis Report 2021
(See Annex B for full story).

Although USAID's Infectious Disease Detection and Surveillance (IDDS) project has only been operating in India since October 2021, the National Tuberculosis Elimination Program (NTEP) has recognized the support provided by the project, leading to visibility at the national level.



IDDS Support to Bihar's Intermediate Reference Laboratory at Patna Improves Tuberculosis Diagnostics (See Annex B for full story)

IDDS is providing technical support to national reference laboratories (NRLs) and intermediate reference laboratories (IRLs) under India's National Tuberculosis Elimination Program to overcome challenges and ensure high-quality tuberculosis (TB) diagnostics.

Diagnostic Highlights

- Visited TB laboratories at different tiers of the health system to provide technical assistance to stream line laboratory processes, clear TB testing backlog, and discuss approaches for reducing turnaround time. Laboratories visited, were All India Institute of Medical Sciences in New Delhi, Rajan Babu Institute of Pulmonary Medicine and Tuberculosis in Delhi, and Intermediate Reference Laboratory (IRL) Patna in Bihar. At the All India Institute of Medical Sciences, IDDS' visit aimed to streamline laboratory processes and address gaps in envisaged roles and responsibilities of the IRL.
- Provided technical assistance to the Rajan Babu Institute of Pulmonary Medicine and Tuberculosis to assess preparedness and identify reasons for delays in initiating liquid culture services at the TB

Culture and DST Laboratory. The laboratory has not been functional since 2018, when it was handed over to the institution through Global Fund Grant support under the NTEP.

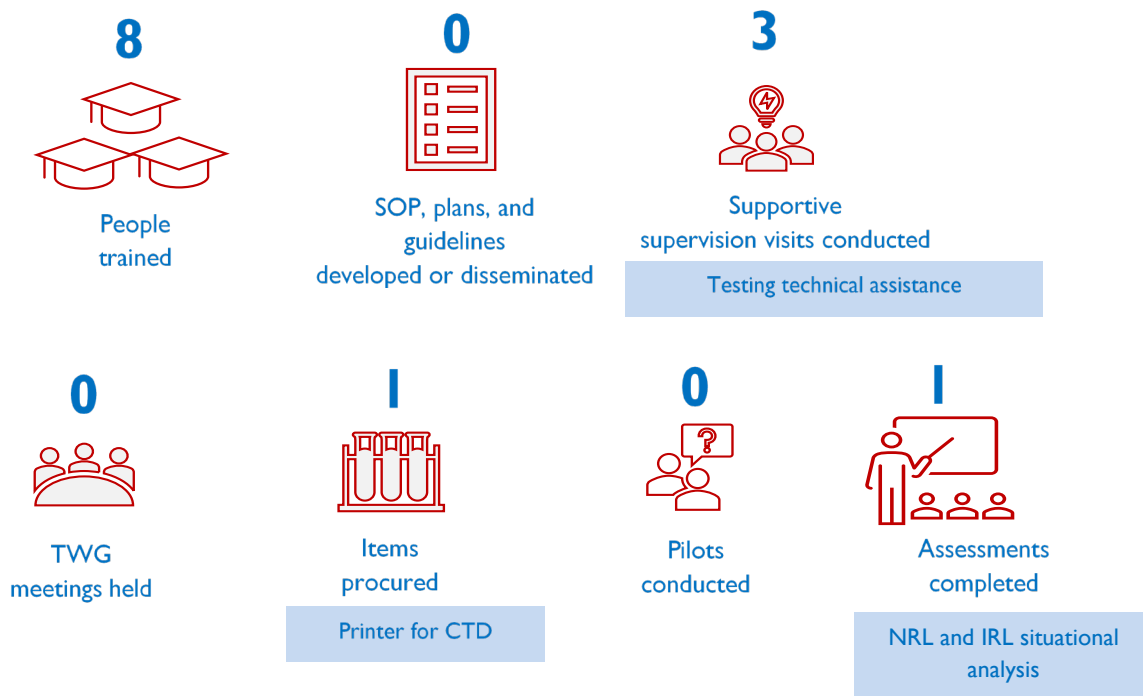
- On February 25, 2021, IDDS and the national reference laboratory provided hands-on training on liquid culture and DST to six laboratory technicians and two microbiologists from Darbhanga and Bhagalpur Districts at IRL Patna, Bihar.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Unavailability of CTD officials for consultative meetings has delayed the process of getting consensus for activities	IDDS and USAID India regularly coordinated and followed up to schedule meetings with the CTD to review activities and get concurrence.	Consistent effort and follow-up in addition to working with key stakeholders was helpful to move forward the process.	Addressed

FY 2021 Q2 Results

FY 2021 Q2 M&E data collection was delayed for India as they worked to establish a data sharing agreement with the government. Some output data was compiled by the country team and presented here, while other indicators are still under review. We will update when the data are validated.



TANZANIA

Quarterly Highlights

- The FY 2021 work plan received contingent approval on January 13, 2021. A second draft of the work plan was submitted on February 24, 2021.

Diagnostic Highlights

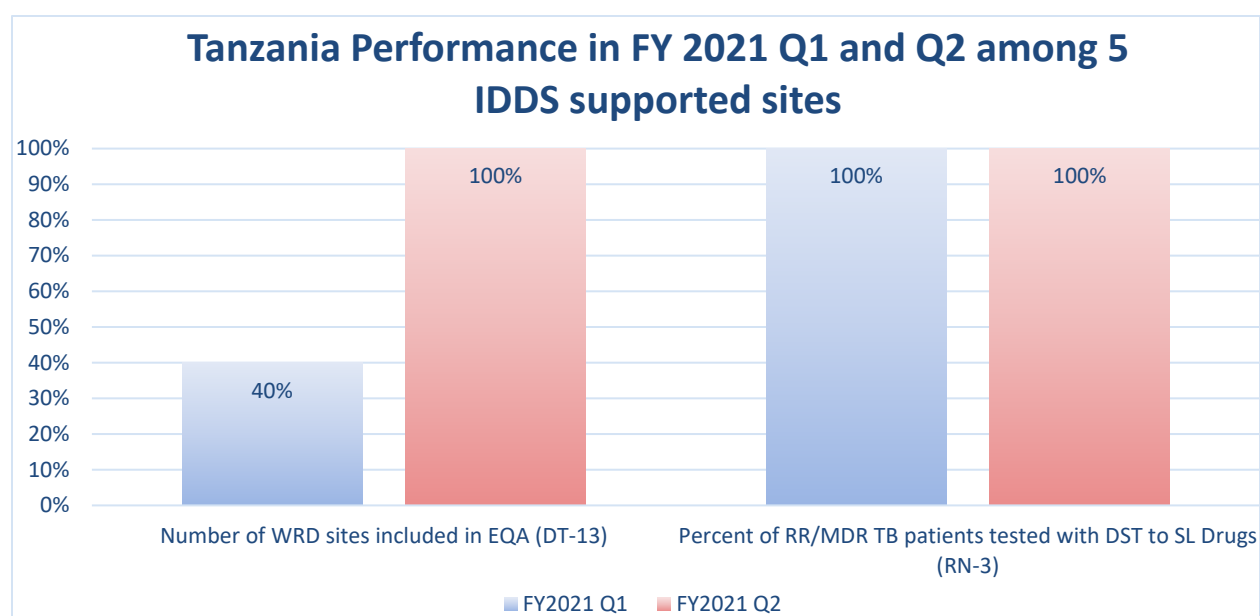
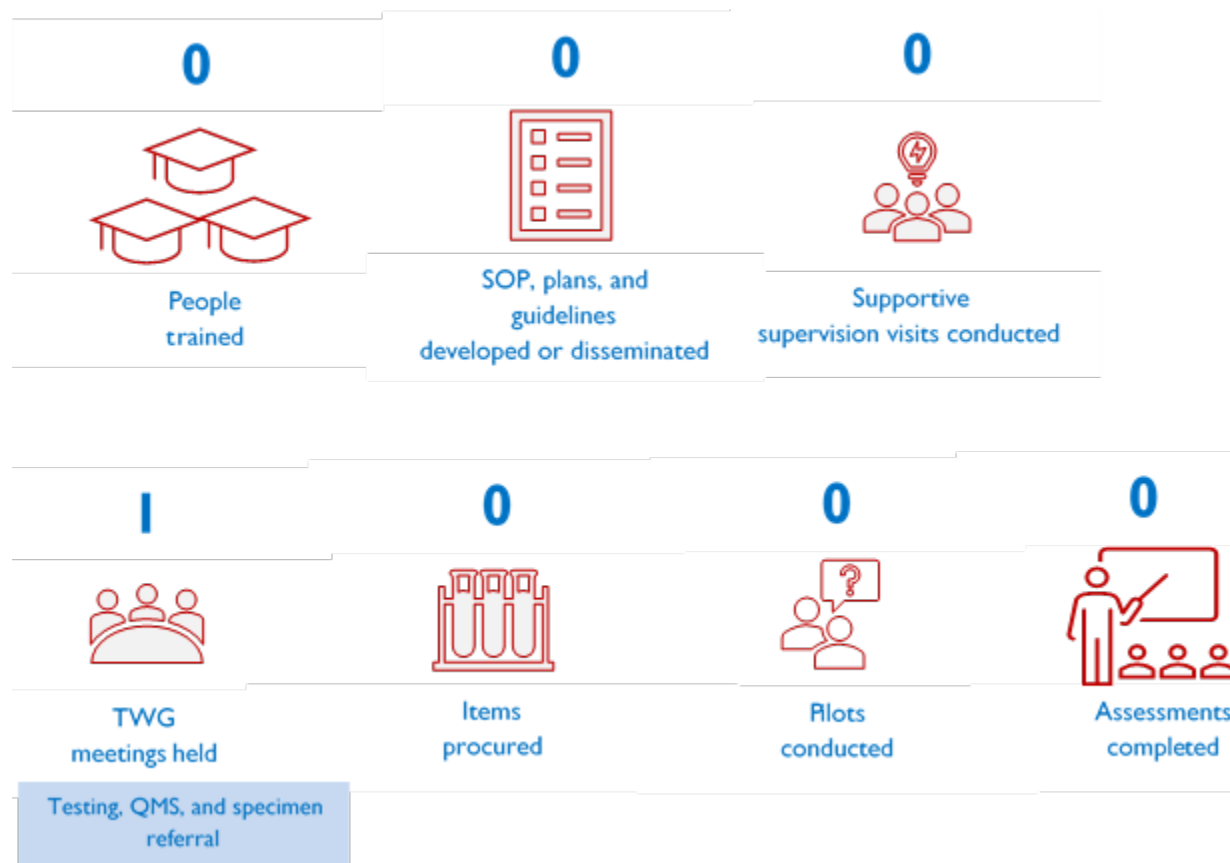
- Provided logistical support for the Q2 meeting of the Tuberculosis Laboratory TWG. During the meeting, representatives of the National TB and Leprosy Program and various implementing partners discussed zonal laboratories' program implementation, performance indicators, and challenges. The various implementing partners, including IDDS, presented implementation progress and planned activities. It was a productive meeting that identified areas of collaboration, synergy, and efficiency in the use of resources. The members of the TWG developed recommendations and action plans for Q3.
- As of FY 2021 Q2, 30 (or 94%) of Xpert sites were transmitting results electronically to national TB surveillance systems.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Implementation was delayed due to delays in work plan approval.	Timelines have shifted, and IDDS anticipates that all work will be completed within the period of performance.	Work closely with all stakeholders so that revised plans can be made quickly when necessary approvals are received.	Addressed

FY 2021 Q2 Results

Additional M&E data for Tanzania can be found in Annex C.



VIETNAM

Quarterly Highlights

- The second draft of the FY 2021 work plan was submitted on January 8, 2021, with a third draft submitted on January 28, 2021. IDDS received approval of the work plan from USAID on February 9, 2021.
- Onboarded a new team lead, Dr. Duong Cuong, filling a key leadership role on the team.

Diagnostic Highlights

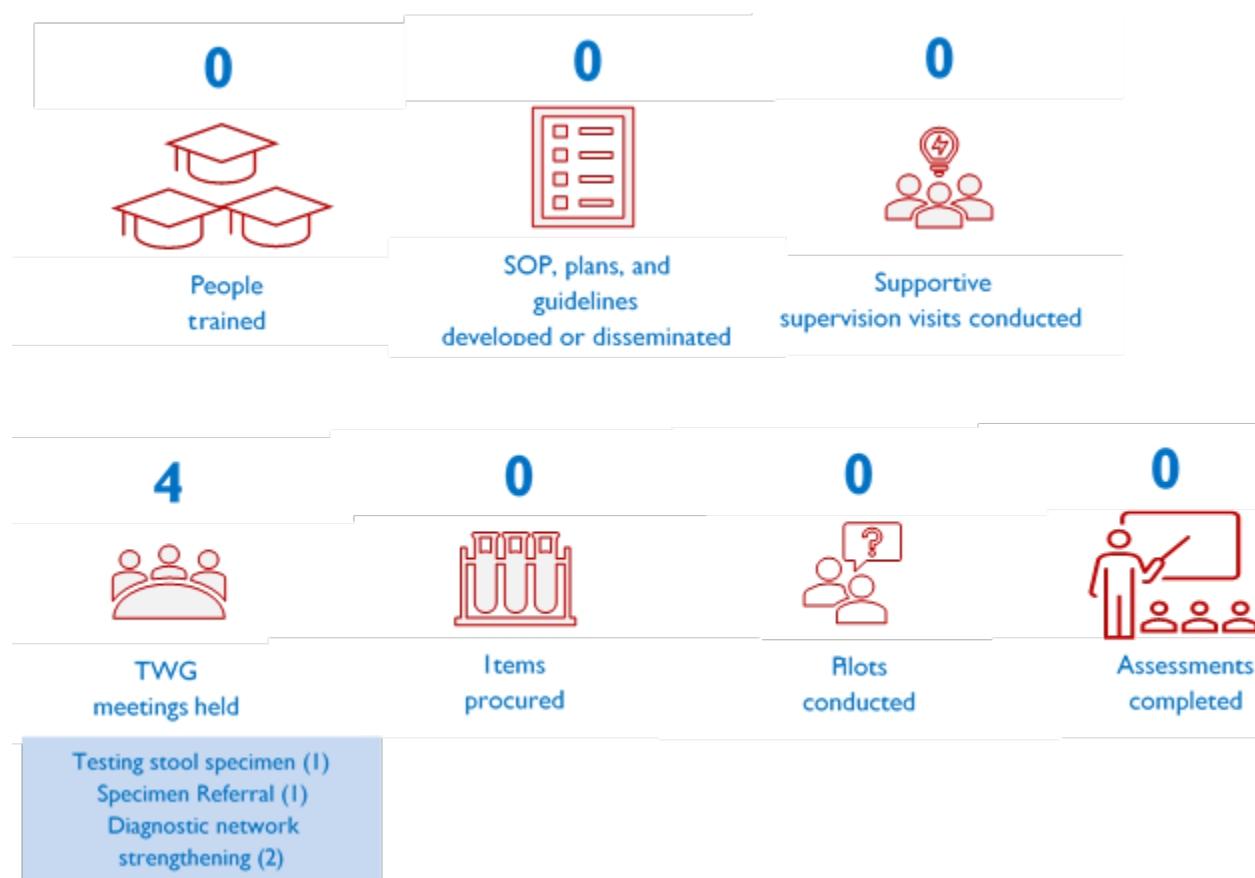
- Revised, edited, and submitted the Review of Implementation Pilot of Stool Specimen Collection, Storage, Transport, and Processing for GeneXpert Testing to Improve TB Diagnosis in Children report. This report will serve as the foundation for expanding stool testing in three IDDS-supported provinces (Dong Thap, Tay Ninh, and Tien Giang), greatly improving capacity to accurately detect TB pathogens in children in these provinces.
- Revised the TB DNA report to disaggregate NTP and non-NTP facilities and resubmitted the report to USAID for review.
- Held consultative meetings to discuss the specimen referral system and a model and SOP that will be harmonized with the referral system being established as part of GHS activities
- Finalized the upgrade plan for the provincial laboratory in Nghe An; however, the country has not been able to mobilize funding for the renovation work. IDDS will continue to provide technical assistance to ensure quality testing with GeneXpert.

Problems Encountered and Solutions

- None

FY 2021 Q2 Results

M&E data for Vietnam were still being collected from the NTP and other sources. Only output data are available at time of report submission.



ZIMBABWE

Quarterly Highlights

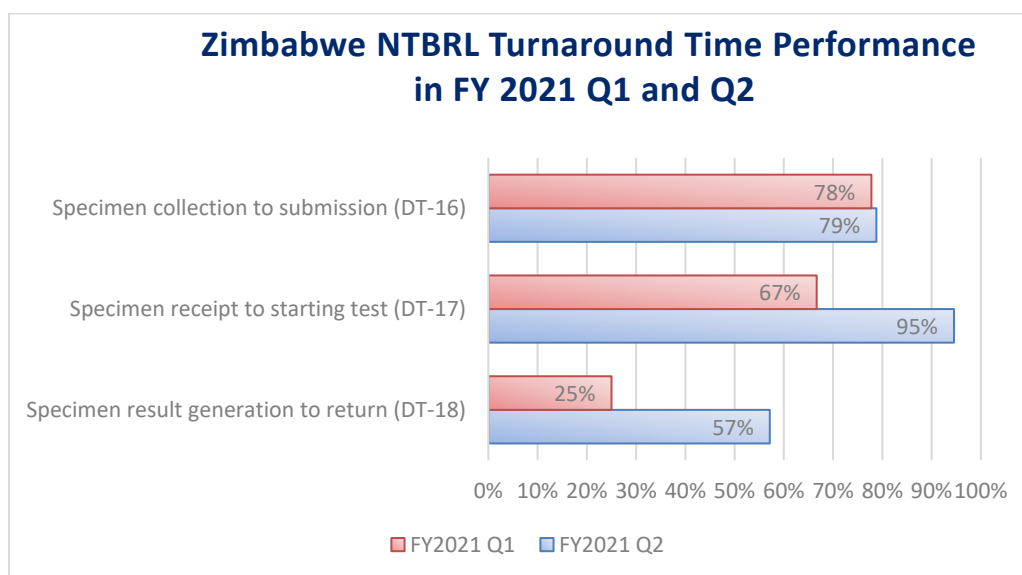
Diagnostic Highlights

- Supported DXO-targeted supportive supervision visits to laboratories that were facing challenges in using GeneXpert machines, using the GxAlert platform, and connecting to the national server between January 22 and January 29, 2021. IDDS visited 41 sites from 10 provinces in the country, which were identified through a review of the national dashboard. The troubleshooting visits were conducted by national GeneXpert superusers drawn from the NTP, NTRLs, and IDDS. A GxAlert troubleshooting checklist was used to standardize the supportive visits across sites. The supervisory visits facilitated onsite training of laboratory staff on Xpert troubleshooting and maintenance, troubleshooting non-reporting devices, swapping routers on devices with poor network connection, installing the new version of GxConnect software, and installing new routers and software in laboratories facing connectivity challenges.
- Developed a master list of all health facilities providing TB services in Zimbabwe and identified the Global Positioning System coordinates for each facility. The information will be used to develop specimen transport system routing schedules that prioritize the transportation of the TB specimen within clinically acceptable timelines.
- Supported the strategy review workshop, which was conducted from February 8 to February 12, 2021, in Inyanga. The review workshop was attended by 32 participants from the NTP, Directorate of Laboratory Services, Central hospitals, provincial laboratories, city health department and uninformed forces, and implementing partners. Participants included directors in the Ministry of Health and Child Care, laboratory managers, provincial laboratory scientists, national TB coordinators, logistics officers, quality officers, laboratory technical advisors, and project directors.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
ICF is not yet registered in Zimbabwe, which has affected implementation.	IDDS has been working with sub-partners to coordinate workshops and activities.	Collaboration across organizations implementing the IDDS project is important in meeting the project targets.	In progress

FY 2021 Q2 Results



COVID-19 FY 2021 Q2 Achievements

INDONESIA

Quarterly Highlights

- Contributed to the COVID-19 response by supporting specimen collection and transport, training and technical assistance, procurement, and development of a COVID-19 national laboratory strategy. All activities were completed at the end of March 2021.
- Provided training and technical assistance. The video showcasing the impact of USAID COVID-19 funding through the IDDS project underwent final revisions and was approved by the MOH and USAID in March 2021. IDDS also collaborated with a video editor and the MOH to finalize training videos on how to enter COVID-19 test results into the data management system maintained by provincial offices. The training videos were approved by the MOH in March 2021.
- Procured additional priority commodities identified with the MOH to support human health laboratories to undertake COVID-19 PCR testing. Delivery of items is anticipated to continue through April and May 2021.
- Provided EQA through the delivery of EQA panels for the PCR laboratories that was completed in December 2020.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
The ceremony with the Mission and the MOH to hand over the remaining VTM (of the original order) to the Jakarta Provincial Health Office was delayed.	It was agreed that IDDS would give the remaining VTM directly to the MOH without a ceremony. The handover of the VTM was completed in February 2021.	Work closely with country stakeholders to see whether alternative solutions are possible.	Addressed
Development of two remaining videos was delayed due to the need for additional revisions for the handover video and lack of clarity on how to enter COVID-19 data into the data management system.	IDDS worked with the vendor to finalize both videos in February 2021. The MOH and USAID expedited finalization of both videos in March.	Work closely with country stakeholders to expedite activities.	Addressed

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY 2021 Q2 Result	FY 2021 Cumulative
Number of specimens transported (weekly)	4,185	0	4,185
Number of specimens transported in ≤24 hours (weekly)	4,185	0	4,185
Number of unique sites specimens are collected from (weekly)	18	0	18
Number of specimen collection/transport training flash drives distributed (weekly)	0	15	15
Number of WHO-purchased EQA panels delivered by IDDS	177	0	177
Number of sites that received the WHO-purchased EQA panels delivered by IDDS	177	0	177
Number of VTM ordered (weekly)	6,000	15,000	21,000
Number of VTM delivered (weekly)	6,000	750	6,750
Number of swabs ordered (weekly)	0	15,000	15,000
Number of packaging materials ordered (weekly)	0	2,000	2,000
Number of safety googles ordered (weekly)	0	700	149
Number of hazmat suits ordered (weekly)	0	1,785	700
Number of PCR other ordered (weekly)	0	149	1,785
Number of N95 masks ordered (weekly)	0	5,750	5,750
Number of N95 masks delivered (weekly)	600	0	600
Number of surgery masks ordered (weekly)	0	30,000	30,000
Number of HEPA filters ordered (weekly)	8	0	8
Number of HEPA filters delivered (weekly)	8	0	8
Number of microcentrifuge refrigerators ordered (weekly)	0	8	8
Number of PCR workstations ordered (weekly)	0	8	8

MALI

Quarterly Highlights

- Completed activities at the end of December 2020. Closeout was completed in February 2021.

Problems Encountered and Solutions

- None

FY 2021 Results

There are no new results for FY 2021 Q2. Annual results are summarized below.

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of specimens transported (weekly)	7,994	0	7,994
Number of specimens transported in ≤24 hours (weekly)	7,994	0	7,994
Number of unique sites specimens are collected from (weekly)	19	0	19
Number of rapid diagnostic test (RDT) trainings conducted (weekly)	4	0	4
Total number of RDT training participants (weekly)	40	0	40
Number of RDT female training participants (weekly)	16	0	16
Number of RDT training participants who passed the training (80% or higher)	24	0	24
Number of VTM delivered (weekly)	1,800	0	1,800
Number of packaging materials delivered (weekly)	100	0	100
Number of min/max thermometers delivered (weekly)	50	0	50

PHILIPPINES

Quarterly Highlights

- A first tranche of IDDS COVID-19 funding-supported activities in the Philippines were completed at the end of November 2020. IDDS the received a second request from USAID to provide additional support for the COVID-19 outbreak in the Philippines. IDDS submitted a work plan to USAID for approval on February 26, 2021. IDDS support under this additional set of funds began in March and will continue through August 2021. Funding under this second tranche focuses mainly on specimen transportation, with additional funds allocated toward training and technical assistance and procurement in support of COVID-19 testing.
- Supported specimen transportation by meeting with the Department of Health regional officers and local government units to plan for and coordinate specimen transport activities. Three provinces were finally selected for implementation: the Bulacan Province (Region III) and Rizal Province (Region IVA), because of the high numbers of recorded COVID-19 cases observed, and the Palawan Province (Region IVB), due to limited access to COVID-19 testing laboratories.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Finding qualified staff to undertake project work due to COVID-19 risks and restrictions	IDDS is coordinating with the Centers for Health and Development and the local government units to circulate job postings and is actively sharing recommendations of potential staff.	Work closely with stakeholders to find qualified staff.	In progress
Finding vehicle rental agencies to work in IDDS selected areas due to COVID-19 travel restrictions	IDDS is working with the Centers for Health and Development and local government units to receive recommendations for rental agencies that are based in the project sites.	Work closely with stakeholders to move activities forward.	In progress

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of specimens transported (weekly)	14,352	0	14,352
Number of specimens transported in ≤24 hours (weekly)	13,848	0	13,848
Number of specimens transported in 25 to ≤48 hours (weekly)	448	0	448
Number of specimens transported in 49 to ≤72 hours (weekly)	45	0	45
Number of specimens transported in more than 72 hours (weekly)	11	0	11
Number of unique sites specimens are collected from (weekly)	19	0	19

SENEGAL

Quarterly Highlights

- IDDS COVID-19 funding-supported activities in Senegal were completed in December 2020. The administrative closeout occurred in February 2021. During closeout, a small amount of funds was identified and used for additional procurement.
- Procured a biosafety cabinet class II, which was delivered to the Regional Hospital of Louga in January 2021. The remaining commodities purchased with the funds identified during closeout were cleared from customs and delivered to Louga Regional Hospital and Ouakam Health Center Dakar. One microcentrifuge is still awaiting customs clearance and will be delivered in April 2021 to Ziguinchor Regional Hospital and Dalal Jaam Hospital.

Problems Encountered and Solutions

- None

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of packaging materials delivered (weekly)	120	0	120
Number of PCR extraction reagents delivered (weekly)	2,400	0	2,400
Number of min/max thermometer delivered (weekly)	50	0	50
Number of biosafety cabinets delivered	0	1	1
Number of digital thermo shakers ordered	2	0	2
Number of digital microcentrifuges ordered	2	0	2
Number of digital microcentrifuges delivered	0	1	1
Number of vortex mixers ordered	4	0	4
Number of vortex mixers delivered	0	2	2

TANZANIA

Quarterly Highlights

- IDDS COVID-19 funding-supported activities in Tanzania were completed at the end of December 2020. Closeout was completed in February 2021.
- Procured items, including triple packaging, the outer carriage for triple packaging, pipettes, desktop computers, and printers, were delivered in January 2021 to the 16 regions at the border, with some sent to the NPHLs. Several laptop and desktop computers, VTM, swabs, and COVID-19 sanitary items (powder-free gloves, waste bins, handwashing soap, soap dispenser, sharp containers) were delivered in March 2021. Five remaining computers/laptops are expected to be distributed in the first week of April 2021, which will complete all procurement activities.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Monitoring by the Tanzania Medicines and Medical Devices Authority increased for COVID-19-related items, creating delays for the vendor in clearing items for delivery.	Items were delivered. Remaining laptops/computers will be delivered in April 2021.	Stay aware of changing policies that may affect implementation of activities.	Addressed

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of VTM ordered (weekly)	14,000	0	14,000
Number of VTM delivered (weekly)	0	14,000	14,000
Number of packaging materials ordered (weekly)	360	0	360
Number of PCR tubes ordered (weekly)	20,000	0	20,000
Number of PCR tubes delivered (weekly)	10,000	10,000	20,000
Number of pipette tips ordered (weekly)	96,000	0	96,000
Number of pipette tips delivered (weekly)	63,360	32,640	96,000
Number of computers/computer equipment (UPS, anti-virus software, etc.) ordered (weekly)	0	10	10
Number of computers/computer equipment (UPS, anti-virus software, etc.) delivered (weekly)	0	5	5
Number of printers ordered (weekly)	0	2	2
Number of printers delivered (weekly)	0	2	2
Number of COVID sanitary supplies ordered (waste bins, handwashing dispenser, soap, latex gloves, sharps container)	0	323	323

THAILAND

Quarterly Highlights

- IDDS contributed to the COVID-19 response in Thailand by providing procurement this quarter. IDDS also provided COVID-19-focused support to the Association of Southeast Asian Nations countries in the region through the RPHL Network. IDDS COVID-19 funding-supported activities in Thailand were completed at the end of March 2021.
- Procured and supported delivery of commodities to respond to the continuing surge of COVID-19 cases reported along the Thailand-Burma border through close coordination with the Department of Medical Science Thailand. Delivery of commodities was completed by activity closeout.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
Commodity shortages and limited storage space at laboratories receiving commodities created delivery and supply chain management challenges related to accurate documentation and delays.	IDDS has been coordinating with the laboratories and the vendors to ensure that goods are delivered in a timely manner and that the documentation is accurate.	There is a need for carefully planning and coordinating logistics so that storage for commodities is available when needed. Ensure that an efficient process is in place with vendors to accurately document procured commodities	In progress

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of PCR extraction reagents ordered (weekly)	10,560	0	10,560
Number of PCR extraction reagents delivered (weekly)	4,944	5,616	10,560
Number of PCR mix/master mix ordered (weekly)	1,488	0	1,488
Number of PCR mix/master mix delivered (weekly)	1,488	0	1,488
Number of PCR detection reagents ordered (weekly)	5,000	330	5,330
Number of PCR detection reagents delivered (weekly)	540	4,794	5,334
Number of PCR other ordered—microcentrifuge tubes, filter tips, PCR strips and tubes (weekly)	3,840	0	3,840
Number of PCR other delivered—microcentrifuge tubes, filter tips, PCR strips and tubes (weekly)	3,840	0	3,840
Number of pipettor ordered	4	0	4
Number of pipettor delivered	4	0	4
Real-time PCR machine ordered	2	0	2
Real-time PCR machine delivered	2	0	2

VIETNAM

Quarterly Highlights

- IDDS COVID-19 funding-supported activities in Vietnam related to development of an EQA scheme based on a sustainable retesting approach and procurement. All COVID-19 funding-supported activities in Vietnam were completed at the end of March 2021.
- Supported EQA through establishing a SARS-CoV-2 Retesting Program as part of the EQA strategy, which was submitted to USAID in January 2021.
- Procured a third set of specimen swabs and VTM, which was delivered to the NTP in January 2021. During the administrative closeout, remaining funds from the EQA retesting strategy were redistributed to enable additional procurement. The IDDS team worked with the MOH and other stakeholders to identify five SARS-CoV-2 testing facilities with high-priority commodity procurement needs and began the necessary procurement in January 2021. Delivery of these items is anticipated to continue through April and May 2021.

Problems Encountered and Solutions

Problem	Resolution	Lessons	Status
An outbreak related to community transmission led to a change in testing commodity needs, delaying the original procurement plan.	IDDS coordinated with key stakeholders to revise the procurement plan and secure deliveries of commodities to hospitals where the needs were greatest.	Work closely with stakeholders to adjust activities as needed due to external circumstances.	Addressed

FY 2021 Results

Indicator	FY 2021 Q1 Result	FY2021 Q2 Result	FY 2021 Cumulative
Number of VTM ordered (weekly)	0	5,000	5,000
Number of VTM delivered (weekly)	5,100	12,800	17,900
Number of swabs ordered (weekly)	0	3,000	3,000
Number of swabs delivered (weekly)	14,500	18,500	33,000
Number of PCR extraction reagents ordered (weekly)	0	12,052	12,052
Number of PCR extraction reagents delivered (weekly)	0	338	338
Number of PCR primers ordered (weekly)	0	9,600	9,600
Number of PCR mix/master mix ordered (weekly)	0	6,250	6,250
Number of PCR other ordered—microcentrifuge tubes, filter tips, PCR strips and tubes (weekly)	0	432,016	432,016
Number of PCR other delivered—microcentrifuge tubes, filter tips, PCR strips and tubes (weekly)	0	99,652	99,652
Number of gloves ordered (weekly)	0	40,000	40,000
Number of gloves delivered (weekly)	0	40,000	40,000

GHS Funding for Ebola Virus Disease FY 2021 Q2 Achievements

DEMOCRATIC REPUBLIC OF THE CONGO

FY 2021 Results

Quarterly Highlights

- Contributed to the EVD response by providing support for laboratory strengthening.

Specimen Transport

- Contracted two vehicles to transport specimens in Butembo and neighboring health zones with suspected cases of EVD.
- Used contracted vehicles to support the INRB in the distribution of EVD diagnostic commodities, including RDT kits and personnel protective equipment, to the INRB laboratories in Beni and Butembo. The vehicles also transport used cartridges to Beni before the cartridges are sent by plane to Goma for safe disposal. IDDS continues to consult and discuss with the chief of the *Division Provinciale de la Santé* (Provincial Health Division) and other implementing partners as to whether specimen transport assistance is required.

Procurement

- IDDS Senior Diagnostic Specialist, Dr. Vital Nkake, travelled to Butembo, Beni, and Mangina to introduce the IDDS project and its support to the EVD response team.
- Received an agreement from the *Division Provinciale de la Santé* (Provincial Health Division) and INRB team on the list of priority laboratory commodities. IDDS has initiated the procurement process.
- Started the procurement of 1,000 GeneXpert cartridges from Cepheid as requested by USAID Washington.

Problems Encountered and Solutions

- None

FY 2021 Results

Indicators	FY 2021 Q2 Results	FY 2021 Cumulative
Distribution of MOH Commodities		
Number of GeneXpert Ebola cartridges transported	300	300
Number of used GeneXpert Ebola cartridges transported for incineration	1,909	1,909
Number of nasopharyngeal swabs transported	2,000	2,000
Number of VTM transported	700	700
Number of EVD specimen collection containers transported	300	300
Number of pairs of gloves transported	3,000	3,000
Number of Cryoboxes transported	100	100
Number of Cryotubes transported	2,500	2,500

GUINEA

FY 2021 Results

Quarterly Highlights

- Contributed to the EVD response by providing support for laboratory strengthening.

Specimen Transport Tracking System

- Developed SOPs to support the monitoring and tracking of specimen location, integrity, and quality, as well as results.
- Worked with the laboratory TWG to validate the SOPs, which will be printed and disseminated in April 2021.

Diagnostic Training and Technical Assistance

- Used available materials developed by the DNL to complete five sets of trainings in biosafety and biosecurity in Kindia and Nzérékoré. The number of people trained is shown in the FY 2021 Results table.

Xpert Ebola Assay Quality Assurance

- Initiated the development of a quality assurance plan for GeneXpert Ebola Assay for the laboratory in Nzérékoré.

Information Management Systems

- Developed the terms of reference to hire a consultant who will support the configuration of the existing HMIS to integrate key laboratory variables and indicators to capture EVD data.
- Procured tablets and computers and handed them over to the *Agence Nationale de Sécurité Sanitaire* (National Health Security Agency) and the DNL.

Procurement

- Started the procurement of 1,000 GeneXpert cartridges from Cepheid as requested by USAID Washington.
- Placed an order of 50 cooler boxes with anticipated delivery in April 2021.

Problems Encountered and Solutions

- None

FY 2021 Results

Indicators	FY 2021 Q2 Results	FY 2021 Cumulative
Training		
Number of EVD biosafety and biosecurity trainings conducted	5	5
Total number of EVD biosafety and biosecurity training participants	40	40
Number of female EVD biosafety and biosecurity training participants	10	10
Number of EVD biosafety and biosecurity training participants who passed the training (80% or higher)	24	24
Procurement		
Number of tablets ordered	20	20
Number of tablets delivered	20	20
Number of computers ordered	7	7
Number of computers delivered	7	7
Number of packaging materials-cooler boxes ordered	50	50
Number of packaging materials-cooler boxes delivered	0	0

LIBERIA

FY 2021 Results

Quarterly Highlights

- The work plan was submitted on March 19, 2021. Due to new GHS funding, USAID requested that the work plan be revised, and discussions with USAID are taking place.

Problems Encountered and Solutions

- None

FY 2021 Results

No data to report during FY 2021 Q2.

MALI

FY 2021 Results

Quarterly Highlights

- The work plan was submitted on March 19, 2021, and is pending approval from USAID. IDDS is planning to focus on three priority areas: diagnostic training and technical assistance, procurement, and surveillance technical assistance.

Problems Encountered and Solutions

- None

FY 2021 Results

No data to report during FY 2021 Q2.

SENEGAL

FY 2021 Results

Quarterly Highlights

- Contributed to the EVD response by providing support for surveillance and contact tracing.

Training and Technical Assistance

- Met with the Directorate of Prevention at the MOH to discuss the IDDS work plan, and they agreed on the next steps, including prioritizing the health districts that IDDS will cover.
- Started updating the EVD surveillance materials that will be used for the trainings. The process is still ongoing.

Information Systems

- Started initial discussions with the Department of Health Information Systems for the development of a tracker for suspect cases and contact tracing.

Problems Encountered and Solutions

- None

FY 2021 Results

No data to report during FY 2021 Q2.

Annex A: Activity Implementation Progress

Annex B: Success/Highlight Stories

Annex C: Country M&E Tables for GHS and TB