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# Infectious Disease Detection and Surveillance (IDDS)

## Quarterly Report

**October 1, 2021–December 31, 2021**



*AMR training in Cameroon. Photo by IDDS*

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## List of Abbreviations

AMR	Antimicrobial Resistance
ARP	American Rescue Plan
AST	Antimicrobial Susceptibility Testing
BRIN	National Research and Innovation Agency
C&DST	Culture and Drug Susceptibility Testing
CAD	Computer-aided Detection
CBS	Community-based Surveillance
CENAT	Center for Tuberculosis and Leprosy Control
CHW	Community Health Worker
COMMIT	Community Mobilization Initiatives to End Tuberculosis
COVID-19	Coronavirus Disease 2019
CTD	Central Tuberculosis Division
CXR	Chest X-ray
DHIS2	District Health Information Software, Version 2
DM	Diabetes Mellitus
DMSc	Department of Medical Sciences
DNA	Diagnostic Network Assessment
DR	Drug Resistant
DRC	Democratic Republic of the Congo
DST	Drug Susceptibility Testing
DTC	DataToCare
EPTB	Extrapulmonary Tuberculosis
EQA	External Quality Assurance
EVD	Ebola Virus Disease
FAO	Food and Agriculture Organization of the United Nations
FY	Fiscal Year
GHS	Global Health Security
GX	GeneXpert
IDDS	Infectious Disease Detection and Surveillance
IDSR	Integrated Disease Surveillance and Response

INRB	<i>Institut National de Recherche Biomédicale</i> (National Institute for Biomedical Research)
INSP	<i>Institut National de Santé Publique</i> (National Institute of Public Health)
IR	Intermediate Result
IRL	Intermediate Reference Laboratory
IT	Information Technology
KNCV	Koninklijke Nederlandse Chemische Vereniging
LIMS	Laboratory Information Management System
LPA	Line Probe Assay
M&E	Monitoring and Evaluation
MDR	Multidrug Resistant
MoH	Ministry of Health
MoHCC	Ministry of Health and Child Care
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MTaPS	Medicines, Technologies, and Pharmaceutical Services
NCDC	National Centre for Disease Control
NDD	National Diagnostic Division
NPHL	National Public Health Laboratory
NPHRL	National Public Health Reference Laboratory
NTP	National Tuberculosis Program
NTRL	National Tuberculosis Reference Laboratory
OD	Operational District
PCR	Polymerase Chain Reaction
RDT	Rapid Diagnostic Test
RPHL	Regional Public Health Laboratory
RRH	Regional Referral Hospital
rtPCR	Reverse Transcription Polymerase Chain Reaction
RTRL	Regional Tuberculosis Reference Laboratory
SIZE	<i>Sistem Informasi Zoonoses dan Emerging Infectious Diseases</i> (System for Zoonotic and Emerging Infectious Disease)
SOP	Standard Operating Procedure
SRS	Specimen Referral System
TB	Tuberculosis
TWG	Technical Working Group



USAID	United States Agency for International Development
VAHIS	Vietnam Animal Health Information System
WHO	World Health Organization

# Program Overview

## Summary Overview

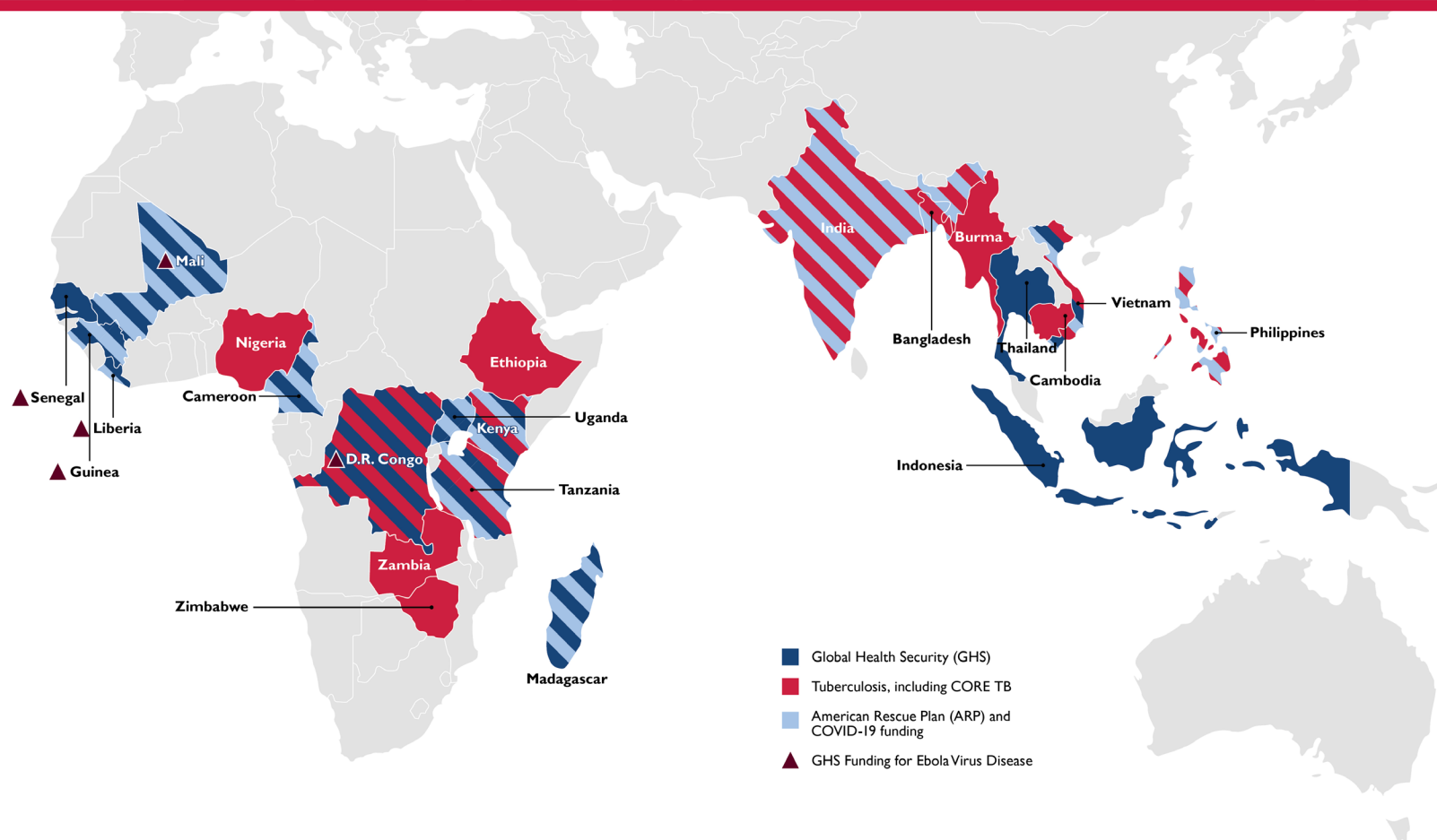
<b>Activity Name:</b>	USAID Infectious Disease Detection and Surveillance
<b>Activity Start Date and End Date:</b>	May 22, 2018–May 21, 2023
<b>Name of Prime Implementing Partner:</b>	ICF Incorporated, LLC
<b>Contract Number:</b>	GS00Q14OADU119
<b>Names of Partners:</b>	PATH, FHI 360, African Society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

## Program Description

The Infectious Disease Detection and Surveillance (IDDS) project is strengthening the capacity of 22 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 FY22 Q1





# Quarterly Progress

## FY 2022 Q1 Overall Achievements

This report summarizes activities that occurred during quarter 1 (Q1) of fiscal year (FY) 2022 and program year 4: October 1, 2021, through December 31, 2021. This quarter, the project implemented Global Health Security (GHS) activities in 15 countries, including supporting responses to the Coronavirus Disease 2019 (COVID-19) pandemic (through the American Rescue Plan (ARP)), and to the Ebola Virus Disease outbreak (Figure 1). IDDS also operated TB programs in 7 countries and provided remote technical assistance to 6 countries through core TB funding.<sup>1</sup>

## 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, including for the response to EVD outbreaks. Through GHS and EVD funding, IDDS is developing strengthened preparedness systems and national diagnostic networks that are accessible, accurate, adaptable, timely, and integrated. A strengthened network is one that:

- Is reliable and 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 2022 Q1, IDDS supported 13 countries to strengthen their diagnostic networks. IDDS also supported response and preparedness for the Ebola outbreak in five countries. Key progress in this area is presented in the sections that follow.

### Identifying gaps in diagnostic networks and supporting essential components (IR 1.1)

In FY 2022 Q1, IDDS provided support to countries to identify and address gaps in diagnostic networks, which included the following: collaborating with in-country stakeholders to operationalize national laboratory and strategic plans; mapping capacity in diagnostic networks; supporting implementation of quality management systems; strengthening capacity for diagnostic testing of AMR, EVD, and other priority pathogens; and enhancing specimen transport referral and reporting systems.

IDDS teams supported **national laboratory and strategic plans** in three countries—**Democratic Republic of the Congo (DRC)**, **Liberia**, and **Madagascar**. In **DRC**, IDDS helped cost the operational plan for the Eastern regional public health laboratory network, and in **Madagascar**, IDDS finalized the National Laboratory Strategic Plan. In **Liberia**, IDDS worked with the National Diagnostic Division (NDD) at the Ministry of Health (MoH) to finalize a monitoring and evaluation (M&E) tracker to monitor implementation of the five-year laboratory strategic plan and troubleshooted with the NDD

<sup>1</sup> Remote TA for TB interventions was provided to DRC, Ethiopia, Kenya, Nigeria, Philippines, and Zambia through core funds in Q1.

on national challenges related to supply chain management and persistent stockouts at facilities. IDDS also carried out **mapping activities for the diagnostic network**. In support of the EVD response in **Guinea**, IDDS mapped 55 laboratories in Nzérékoré and 9 laboratories in Kankan.

**Enhancing quality management systems** at facilities was also a focus in two countries this quarter. In **Kenya**, IDDS technically supported the Malindi Sub-County Hospital Laboratory to obtain accreditation for its bacteriology services. This will boost confidence in the quality of its diagnostic services and of generated AMR surveillance data. In **Liberia**, IDDS supported technicians at the Tellewoyan, Phebe, and G.W. Harley hospital laboratories to address gaps noted during the FY 2021 Q4 Stepwise Laboratory Improvement Process Towards Accreditation audit, strengthening overall quality of services at these diagnostic facilities.

IDDS supported facilities in five countries to **improve testing capacity for AMR and priority pathogens**. In **DRC**, IDDS supported the Directorate of Laboratory Services to finalize the Laboratory Equipment Maintenance Manual. The country team technically and financially supported the development of training manuals, a trainer guide, modules, standard operating procedures (SOPs), and job aids for equipment and laboratory maintenance, which were validated at a workshop in Goma. IDDS also trained 93 laboratory workers (including 16 women) on laboratory equipment maintenance with these materials. In **Liberia**, IDDS provided financial support to an NDD bacteriology champion to provide three weeks of onsite mentoring at the Tellewoyan hospital laboratory. The training focused on bacteriology techniques, including disinfection, sterility testing, and decontamination of waste. IDDS also worked with the diagnostic champion to establish diagnostic stewardship meetings in which clinicians were directly engaged to improve the quality of specimen collection and results. Finally, IDDS equipped the G.W. Harley hospital laboratory with consumables to support bacteriology testing and installed desktop computers with WHONET software at three hospital laboratories to improve AMR data capture and sharing with the National AMR Unit and the NDD. To expand the peripheral testing capacity in the Mahajanga region in **Madagascar** for COVID-19 and other priority pathogen diagnostics, IDDS finalized a report on use of polymerase chain reaction (PCR) testing for COVID-19 and challenges that will need to be addressed. IDDS also trained *Reseau de Laboratoires de Madagascar* (Laboratory Network of Madagascar) biologists and laboratory technicians on bacteriology.

To **improve testing capacity for EVD** in **DRC**, IDDS delivered an additional 500 GeneXpert (GX) EVD cartridges on top of the previously procured 500 cartridges, which were used to respond to an Ebola outbreak in October. IDDS also conducted a supportive supervision visit to the *Institut National de Recherche Biomédicale* (INRB, or National Institute for Biomedical Research) laboratory in Beni to assess the EVD diagnostic process. The team observed that EVD specimens were indeed being tested on the same day they were being received at the laboratory, in accordance with diagnostic guidelines and prior trainings. IDDS also built EVD diagnostic capacity in **Liberia**. The team completed installation of a solar power system and installation of chemistry and hematology analyzers at Tellewoyan Memorial Hospital and organized a hand-over ceremony with the director of the USAID Mission in Liberia to officially transfer the chemistry and hematology analyzers and reagents to G.W. Harley Hospital. IDDS also supported the EVD response in **Guinea** and **Mali**. IDDS provided cooler boxes for specimen collection, packaging, and transport and essential reagents for Marburg and Lassa fever in **Guinea**. In **Mali**, IDDS provided essential reagents and laboratory supplies to the *Institut National de Santé Publique* (INSP, or National Institute of Public Health) and provided supportive supervision on data collection and reporting in addition to onsite coaching in Kangaba twice to 17 technical directors at the referral health center and 52 community health workers (CHWs). During the quarter, the CHWs reported

70 suspected cases of diseases, including 10 cases of measles, of which 7 were confirmed. In addition, IDDS trained participants from the central laboratory and three regional hospitals on PCR use.

At the regional level, IDDS continued support in **Thailand** to the Regional Public Health Laboratory (RPHL) Network, which facilitated its fourteenth video conference in October for 20 participants from Brunei Darussalam, Myanmar, Singapore, the Philippines, Nepal, and Thailand. The technical session titled “COVID-19 Laboratory Diagnosis in the Association of Southeast Asian Nations (ASEAN) Countries” was delivered virtually by the director of the Thai National Institute of Health.<sup>2</sup> IDDS transitioned management of the RPHL website to the RPHL Secretariat and the Department of Medical Sciences (DMSc) team, which began uploading content this quarter on presentations and the annual meeting. IDDS also supported the RPHL Secretariat to obtain inputs from 39 member and non-member representatives on how to improve the network and sustain its existence. Findings were shared at the RPHL annual meeting to a mix of 148 onsite and virtual attendees, during which successes of the network were shared. In addition, as part of the closeout process, IDDS developed a transition plan to successfully transfer responsibilities of the RPHL Network to the DMSc.

In five countries, IDDS **enhanced specimen transport referral and reporting systems** for human and animal health. In **Guinea**, IDDS began a pilot in three supported regions to assess the feasibility and cost of specimen transportation, including for EVD specimens, from prefectures to reference laboratories for testing. IDDS trained and provided supportive supervision to health care workers and drivers on specimen packaging and transport. The team also provided training on the use of an innovative monitoring tool for specimen tracking, including a mobile tracking application for specimen referral that uses thermometers and Global Positioning System tracking to ensure specimen quality during transport, sending out SMS messages when issues arise. In **Kenya**, IDDS assisted five supported sites to actively refer isolates to the National Microbiology Reference Laboratory for external quality assurance (EQA) and helped the Murang’a County Referral Hospital convene a multisectoral specimen referral system (SRS) technical working group (TWG) for a stakeholders’ meeting to review two years of progress of the county-owned integrated SRS. The county SRS TWG will meet quarterly and is planning to integrate AMR surveillance specimens into the SRS as a pilot that could eventually expand to increase access to diagnostic services at peripheral health facilities. IDDS conducted onsite mentorship at Tellewoyan hospital laboratory in **Liberia** on specimen collection and management and financially supported an NDD bacteriology champion to provide onsite training and mentorship on specimen handling and transportation at two hospital laboratories. In **Vietnam**, IDDS worked to develop a human health and a parallel animal health SRS. IDDS procured the needed materials to pilot the SRS, prepared a training video clip on human and animal specimen handling and transport, and worked with regional public health institutes to develop SOPs. IDDS continued collaboration with the National Institute of Hygiene and Epidemiology to develop a preliminary specimen management information system to support the pilot SRS, part of which included provision of four training courses on use of the management information system. The two specimen management information systems, for human health and for animal health, will initiate formalization of the human and animal SRS for the first time in pilot provinces and is the first step to developing a national SRS for human health and for animal health. To specifically bolster EVD specimen transportation, in **DRC**, IDDS transported potential EVD specimens from collection sites to the INRB for GX testing. IDDS also transported viral transport media and GX cartridges procured by other implementing partners.

<sup>2</sup> The video clip is available at: [www.therphl.net](http://www.therphl.net).

**Table 1: Project outputs related to strengthening diagnostic networks for FY 2022 Q1 and the countries that contributed to these outputs (covers GHS, EVD, and ARP funding)**

<b>GHS IR 1.1: Gaps in diagnostic networks identified and essential components supported</b>								
	TOTAL	Testing Procedures	Equipment Maintenance	Commodity Management	QMS	Specimen Referral	Biosafety	Other Diagnostic Network Topics
People Trained	297	28	134	17		159		
SOPs, Plans, and Guidelines Developed, Revised, or Disseminated	24	2		5		16	1	
TWG Meetings Held	12	1	2			8		1
Supervisory Visits Conducted	9	6				3		
Pilots Conducted	7					7		
Assessment Reports Completed	0							
Persons Mentored	88	41			10	37		
<b>Countries<sup>1</sup></b>								
Cameroon						•		
DRC		•	•			•		
Guinea						•		
India								
Indonesia		•						
Kenya		•			•	•		
Liberia		•	•				•	•
Madagascar			•					
Mali		•	•					
Philippines								
Senegal								
Tanzania				•				
Thailand								
Uganda								
Vietnam						•		

QMS=Quality Management System

<sup>1</sup> Countries listed are those that contributed to specific outputs in Q1. Countries that are working toward an output but have not achieved it are not included.

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

IDDS supported country efforts to integrate diagnostic network components across disease areas in three countries in FY 2022 Q1. Efforts ranged from training on integrated surveillance guidelines in two countries (**Indonesia** and **Senegal**) to support for a national One Health platform (**Mali**). In **Indonesia**, as part of support to the One Health Laboratory Network, IDDS worked with the MoH Center for Human Resource Training and the Eijkman Institute to finalize the curriculum for the PREDICT Protocol Laboratory Training. An outcome of the meeting was to register the curriculum on the *Sistem Informasi Akreditasi Pelatihan* (the MoH Certification Training Center) website to begin the process to allow broader use across the country. In **Senegal**, IDDS trained district-level nurses in three

districts on the third edition of the updated Integrated Disease Surveillance and Response (IDSR) guidelines. IDDS supported the national One Health platform in **Mali** by providing technical and financial support to the INSP for a meeting for the multisectoral One Health committee members. During the meeting, IDDS supported the INSP to review laboratory equipment maintenance procedures and present a research protocol on “Antibiotic resistance of *E. coli* strains isolated from ruminants in the peri-urban area of Bamako.”

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

As part of **building capacity to detect priority pathogens and AMR**, in FY 2022 Q1, IDDS worked closely with in-country stakeholders to develop a data management system for AMR surveillance, develop training modules and curricula on detecting AMR and priority pathogens, provide training on AMR and priority pathogen detection, and enhance laboratory diagnostic capacity. In **Guinea**, IDDS worked with the INSP to develop a **data management system for AMR** using the KoBo Toolbox, a free open-source tool for mobile data collection. The system allows regional laboratories to report AMR data to the national level. It also provides a centralized data repository for the National Health Laboratory to monitor and report AMR data into the Global Antimicrobial Resistance and Use Surveillance System for the first time in Guinea. IDDS also worked extensively in **Kenya** to build priority pathogen and AMR capacity. IDDS worked with the University of Nairobi Health Information Technology (IT) team to revise and improve content on the previously developed AMR surveillance training hosted on the MoH e-Learning Academy and developed certificates to award to learners. The team promoted the **AMR surveillance training** course during World Antimicrobial Awareness Week to more than 300 participants as part of the curricula’s national launch. IDDS also **worked with national and county antimicrobial stewardship committees** to launch the Kilifi County Antimicrobial Stewardship Inter-Agency Committee action plan as part of an effort to decentralize AMR diagnostics. Finally, IDDS supported the Bungoma County Referral Hospital and Hass Scientific to negotiate and finalize a contract to place a VITEK2 system to **automate bacterial identification and antimicrobial susceptibility testing (AST)**. Laboratory personnel were trained on how to use specimens, process specimens, conduct quality assurance, and maintain the equipment. IDDS partnered with the Bungoma County Referral Hospital to hold a continuous medical education session for 44 health care workers (21 female) on diagnostics and antimicrobial stewardship. The continuous medical education session provided information on microbes causing infections and AMR, and the use of bacteriology tests to guide patient management and treatment.

### 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, IDDS aims to support countries to rapidly and effectively detect events of significance for public health, animal health, and health security. In FY 2022 Q1, IDDS supported countries to strengthen indicator-based surveillance, event-based surveillance, and community-based surveillance (CBS); improve AMR and priority pathogen surveillance; and increase interoperability between human and animal health and health security information systems.

### Identifying and addressing gaps in surveillance systems (IR 2.1)

In FY 2022 Q1, IDDS provided support to countries to strengthen surveillance capabilities for priority pathogens at all tiers of the health system. Specifically, IDDS focused on **establishing functional data systems to perform surveillance** in two countries (**Madagascar** and **Senegal**). In **Madagascar**,

IDDS led the development of a report that outlined recommendations to strengthen the surveillance system and integrate surveillance data. In **Senegal**, IDDS continued conducting supportive supervision of nurses in the Tambacounda and St. Louis regions to improve the quality of data that is reported through routine surveillance of priority diseases. In addition, IDDS worked closely with the MoH Division of Health Information Systems to select two new regions (Kolda and Kédougou) to be included in our supportive supervision engagements, and to be included in improving the quality of priority disease surveillance data.

In addition, IDDS provided technical assistance and training to laboratory technicians and other key personnel in **DRC**, **Mali**, and **Vietnam** to ensure that **staff are able to support ongoing surveillance activities**. For example, with the ongoing Ebola outbreak in **DRC**, it was critical for laboratories to maintain strong surveillance and response capabilities across the laboratory network. IDDS conducted a supportive supervision visit to the INRB laboratory in Beni, and, in addition, the supervisory team had a meeting with laboratory technicians from INRB laboratories in Beni, Butembo, and Mangina and observed the EVD diagnostic testing process at the INRB laboratory in Beni. In support of EVD response measures, IDDS worked closely with teams in **Mali** by traveling to Kangaba for supportive supervision visits. While there, the IDDS team met with the referral health center staff, including technical directors, and CHWs to secure buy-in from all health care workers and responders. During the supervisory visit, IDDS technical advisors reviewed the data collection and reporting process and provided tailored, onsite coaching as needed. IDDS also conducted a training on PCR testing to detect EVD with participants from the central laboratories in Bamako and three regional hospitals in Mopti, Ségou, and Sikasso. Finally, in **Vietnam**, IDDS collaborated with key stakeholders to improve and strengthen the Vietnam Animal Health Information System (VAHIS), an online animal disease reporting system. This system accelerates the flow of information from all health care facilities and laboratories to public health decisionmakers and enables real-time analysis of animal disease cases. IDDS made improvements to the VAHIS system that make the data entry and management process much smoother and easier, especially for provincial staff. This contributed to a further increase in reporting rates, timeliness, and completeness of reported outbreak data in the animal health system.

IDDS continued to support the **expansion of AMR surveillance activities** in four countries: **Cameroon**, **Kenya**, **Senegal**, and **Tanzania**. In **Cameroon**, IDDS supported AMR surveillance activities at six human health and two animal health sentinel surveillance sites by providing training and mentorship support on AMR detection and surveillance. IDDS also provided technical assistance to Cameroon's National Public Health Laboratory (NPHL) to organize the quarterly AMR data quality review workshop for sentinel surveillance sites. Data collected from the AMR pilot surveillance sites were reviewed for each IDDS-supported sentinel surveillance site for timeliness, consistency, and completeness according to National AMR Surveillance Guidelines, and recommendations for improvement were shared with participants. In **Kenya**, IDDS facilitated a hands-on training on the use of WHONET software for AMR data management and analysis. In addition, IDDS worked with seven IDDS-supported diagnostic laboratories in **Senegal** to follow up on the entry of AMR reports into District Health Information Software, version 2 (DHIS2). The ongoing technical support has resulted in four of the seven IDDS-supported sites submitting electronic reports. Finally, in **Tanzania**, IDDS developed a standardized supportive supervision checklist for AST of wound site specimens to enhance laboratory performance, quality service delivery, and use of data, which will lead to improved reporting across the IDDS-supported sentinel sites. IDDS also worked with various agencies and partners, including the USAID Mission, MTaPS, and MoH, across **Tanzania** to improve AMR data sharing to



minimize duplication of efforts and complement any ongoing AMR interventions, including surveillance, infection prevention and control, and antimicrobial stewardship.

Across three districts of the Tambacounda region in **Senegal** (Koumpentoum, Maka Colibantang, and Tambacounda), IDDS provided technical and operational support for the **rollout of the updated IDSR** guidelines by training district-level nurses. In **Mali**, IDDS attended two workshops for the updating and **validation of the national IDSR framework**, which serves as a reference document for the implementation of surveillance activities, including CBS, across **Mali**.

**Table 2: Project outputs related to strengthening surveillance systems for FY 2022 Q1 and the countries that contributed to these outputs**

<b>Result area: GHS IR 2.1: Gaps in core functions of surveillance systems identified and essential activities supported</b>						
	TOTAL	Interoperability	Electronic Reporting	Data Quality	Data Analysis and Use	Other Surveillance Topic
People Trained	130		86		44	
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	7				1	6
TWG Meetings Held	22		1	4	14	3
Supervisory Visits Conducted	5					
Pilots Conducted	0					
Assessment Reports Completed	0					
Persons Mentored	26		26			
<b>Countries<sup>1</sup></b>						
Burkina Faso						
Cameroon				•		
DRC						
Guinea						
India						
Indonesia					•	•
Kenya					•	
Liberia						
Madagascar						
Mali						•
Philippines						
Senegal			•			•
Tanzania						
Thailand						
Uganda					•	
Vietnam			•	•		

<sup>1</sup> Countries listed are those that contributed to specific outputs during Q1. Countries that are working toward an output, but have not achieved it, are not included.

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

In addition to addressing gaps in surveillance systems, IDDS has been working closely with countries to **strengthen interconnectedness across reporting and information management systems**. This quarter, IDDS supported both general disease surveillance and EVD surveillance. For example, IDDS contributed to the finalization of the “Cross-Sectoral Integrated Surveillance Guidelines,” which will be deployed by the Government of **Indonesia**. A pilot district will be engaged to determine how the implementation of these guidelines can be scaled up at the national level and improve cross-sectoral collaboration for disease surveillance. IDDS also supported surveillance activities in **Senegal** by engaging with several diagnostic laboratories on establishing routine entry of their AMR reports into DHIS2.

In **Kenya**, IDDS provided **support to sites entering surveillance data** by convening a hands-on training on the use of WHONET software, which brought together representatives (a microbiologist and quality officer) from each of the five IDDS-supported AMR surveillance sites, the IDDS Kenya team, and the NPHLS. In **Senegal**, IDDS worked with the MoH to update its EVD surveillance tools and materials and convened a final meeting for validation of the tools. The MoH’s Directorate of Prevention will share the finalized tools with health districts for wider dissemination and use across the country. IDDS worked with the Epidemiological Surveillance TWG and the Directorate of Prevention in **Senegal** to modify and roll out an SMS-based early warning system module for EVD and other hemorrhagic fevers. This module was integrated into the existing SMS early warning system that is currently established for the COVID-19 pandemic. IDDS provided supportive supervision in Kangaba, **Mali** to review data collection and reporting practices for EVD and provided onsite coaching based on the observed gaps. During these visits, IDDS engaged with referral health center staff, including its 17 technical directors and 52 CHWs, who are essential for supporting widespread disease surveillance activities.

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

During this quarter, IDDS worked closely with countries to **convene meetings during which priority pathogen or AMR surveillance data were regularly reviewed** to ensure alignment with national-level guidelines. In November, IDDS worked closely with key partners to conduct a joint site visit at Kigoma Regional Hospital in **Tanzania**; the site is jointly supported by IDDS (for AMR surveillance) and the USAID-funded Medicines, Technologies, and Pharmaceutical Services (MTaPS) program (for antimicrobial stewardship). The visit aimed to improve AMR data sharing and use across the different interventions to enhance synergies across all organizations’ efforts. In addition, IDDS supported **Tanzania’s** implementation of the National AMR Surveillance Framework in animal health surveillance sites by meeting with relevant partners and stakeholders. In **Cameroon**, IDDS supported the organization of the first International Microbiology Day meeting in Yaoundé, which was convened during World Antimicrobial Awareness Week. In **Cameroon**, IDDS continued to support the implementation of a **pilot program for AMR surveillance** in six human health and two animal health sentinel surveillance sites. IDDS focused its efforts on providing training and mentorship support for AMR detection at sentinel sites, which is the first time **Cameroon** has initiated operational, decentralized AMR surveillance. Finally, IDDS developed a standardized supportive supervision checklist for AST in **Tanzania**, which further builds capacity of AMR surveillance supervisors to plan and conduct coordinated supervisory activities across AMR sentinel sites. This capacity building activity will



enhance laboratory performance, quality service delivery, and data usage, which will lead to improved reporting across sentinel AMR surveillance sites.

## COVID-19

IDDS responded to the COVID-19 pandemic to increase country capacity to transport and test COVID-19 specimens, funded by the ARP. In FY 2022 Q1, IDDS supported 11 countries in COVID-19 specimen transportation, training and technical assistance, and procurement of essential equipment and supplies. Countries receiving COVID-19 and ARP funding are Cameroon, Guinea, India, Indonesia, Liberia, Madagascar, Mali, Philippines, Senegal, Tanzania, and Vietnam. IDDS is working to strengthen laboratory capacity for providing timely diagnosis of suspected cases and contact tracing as well as safe specimen collection, packaging, and transport, which are critical to preventing the spread of COVID-19.

Several IDDS-supported countries have seen notable rises in the number of cases of COVID-19, and the emergence of the Omicron variant further increased the impact of COVID-19 in these countries. IDDS is working closely with locally based teams to continuously assess the case count, vaccination rates, and any public health mandates that are being imposed within each IDDS-supported country in order to ensure safety and compliance. While local and international travel restrictions have often prevented in-person engagements, IDDS has continued to communicate with partners to ensure transparency, implement capacity building activities in alignment with approved work plans, and further expand on the progress made during FY 2021.

### Specimen collection and transport

IDDS supported **specimen collection and transport capacity building activities** across five countries during this quarter. As part of ongoing efforts to establish routine specimen collection and testing in **Mali**, IDDS procured rapid diagnostic test (RDT) kits for COVID-19, along with other consumables required for specimen processing. Additional procurement was supported in **Liberia** for RNA extraction kits and specimen collection kits. IDDS then provided training to laboratories in Bong, Lofa, and Nimba counties on safe and timely specimen collection, packaging, and transportation to the National Public Health Reference Laboratory (NPHRL) for PCR testing. IDDS also provided technical assistance to county laboratories for antigen RDT and followed up with continuous mentorship and technical assistance on updating the laboratory testing strategy. In **Cameroon**, IDDS delivered 210 PCR plates to the NPHRL to respond to the stockout of the supplies, and procured other laboratory consumables, such as cryotubes, gloves, and pipettes in support of ongoing specimen collection and transport needs. In addition, IDDS collaborated with several partners in **Cameroon** to review the National Strategy for COVID-19 Genomic Surveillance and developed the data flow chart for **tracing COVID-19 specimens from collection sites** to the NPHRL for genomic sequencing. In **Guinea**, IDDS led two training sessions on COVID-19 detection using GX and RDTs, specimen collection, biosafety, and quality management. In the **Philippines**, IDDS continued to provide specimen transport support in Bulacan, Palawan, and Rizal provinces, and additional support to transport specimens from collection sites in Bulacan and Rizal provinces to the Philippine Genome Center in Manila for whole genome sequencing. IDDS continued to support the use of specimen transport vehicles in six IDDS-supported provinces in the **Philippines** as well as the identification of specimen collection sites for the provinces that were newly added to IDDS's coverage (Cavite, Isabela, and Laguna provinces).

## Training and technical assistance

Over the past quarter, IDDS has provided technical assistance, training, and ongoing mentorship to **assist laboratory networks across several countries to respond to the COVID-19 pandemic**. In **Tanzania**, IDDS led a training on supply chain management for laboratory staff from five COVID-19 testing laboratories, which will ensure that these subnational laboratories will be able to properly manage their supply of laboratory supplies needed for COVID-19 testing, so that laboratory stockouts do not interrupt COVID-19 testing. In addition to providing COVID-19 procurement support, IDDS led another training on the World Health Organization (WHO) Laboratory Assessment Tool for COVID-19 testing and subsequent assessments conducted to support a decentralized approach to COVID-19 testing, ensuring that reverse transcription PCR (rtPCR) capacities are in place at key sites across **Tanzania**.

During this quarter, IDDS supported trainings and district-level supportive supervision visits that focused on laboratory information management system (LIMS) implementation for COVID-19 data management, implementation of national technical guidelines, prioritization of procurement needs for COVID-19 diagnostics, and integration of information systems in **Mali**. A similar training was led by IDDS in **Madagascar** that focused on strengthening COVID-19 surveillance data management and electronic reporting of COVID-19 surveillance data. Surveillance bulletins for policymakers were developed within the context of the country's COVID-19 response. In **Liberia**, IDDS worked with the Phebe Hospital Laboratory in Bong County to process COVID-19 EQA proficiency testing panels on GX machines and facilitated the submission of the panels to the proficiency panel providers. In addition, IDDS provided technical assistance to the NPHRL to assess and forecast the inventory of COVID-19 diagnostic commodities and plan for distribution and redistribution of COVID-19 RDTs that are nearing expiry.

In addition, IDDS collaborated with the Centre Pasteur du Cameroun (Pasteur Center in **Cameroon**), NPHL, and WHO, and reviewed the National Strategy for COVID-19 Genomic Surveillance and developed the data flow chart for tracing COVID-19 specimens from collection sites to the NPHL for genomic sequencing. IDDS led the training of 23 medical staff for Frontier Health Posts staff on cross-border surveillance, safe specimen collection and transport, guidelines and procedures for prevention, and response to public health emergencies, including the COVID-19 pandemic at the entry points. Finally, in **Guinea**, IDDS conducted two training sessions on COVID-19 detection using GX and RDTs for 21 staff.

## TUBERCULOSIS

### Strengthening National Diagnostic Networks

IDDS is implementing programs globally to strengthen TB diagnostic networks with both core and field funding from USAID. Through its work, IDDS is building diagnostic capacity using new rapid molecular diagnostic tools for TB, drug-resistant (DR)-TB, and multi-drug resistant (MDR)-TB case detection and enhancing capacities of national and regional reference laboratories and staff in the seven countries where IDDS received field funds and in an additional two countries where it also received core funds in FY 2022 Q1.

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

This quarter, IDDS prepared for and conducted high-quality TB Diagnostic Network Assessments (DNAs), strengthened the TB SRS, increased use of GX, expanded TB diagnostic connectivity solutions,

strengthened leadership and management of and within the TB network, strengthened engagement with the private sector, and built upon the global knowledge base for TB diagnostics.

IDDS continued to **refine implementation of TB DNAs globally**. IDDS updated its TB-NET tool to be hosted on Airtable, a cloud-based database platform, which will enable the preservation of data quality and allow IDDS to add new or adapted questions without losing the integrity of past versions of the tool. Use of Airtable will also facilitate conduct of the TB DNAs through a mobile application. In addition to these refinements, IDDS adapted the TB-NET tool to incorporate a checklist to assess the capacity and availability of drug susceptibility testing (DST) and DR-TB. Incorporating DR-TB into the TB-NET tool will allow the TB DNA to assess more of the TB diagnostic network during assessments, thus identifying more opportunities to optimize the diagnostic network. In **India**, IDDS began mapping potential laboratories to include in its DNA and received diagnostic TB data from the Central TB Division (CTD) as part of initial preparation. IDDS also presented two laboratory diagnostic network spatial analyses to National TB Programs (NTPs) in **DRC** and **Kenya** and to USAID and the USAID Mission in **Zambia**. The NTPs will use data to inform placement of Truenat instruments and improve access to rapid molecular testing in respective countries.

IDDS **strengthened the TB SRS** in **Burma** and **Vietnam** this quarter. In **Burma**, IDDS developed a draft plan to implement a novel SRS innovation, a mobile and web-based sputum SRS that will identify patient pathways and integrate new technologies into the existing SRS. IDDS collaborated with the USAID-funded Local Action To TB-free Myanmar project to define pilot areas and strategies as part of the effort. In **Vietnam**, IDDS met with System One, the NTP, and the mission to plan for the pilot of the SRS, which System One will implement free of charge for three to six months.

IDDS **expanded the use of GX** in three countries this quarter. In **Bangladesh**, IDDS finalized the GX assessment report and database for two geographic divisions and finalized the revised TB diagnostic algorithm with GX as an initial test for TB diagnosis, which the NTP successfully incorporated into the National Guidelines and Operational Manual for TB. In **Burma**, IDDS worked closely with in-country partners, including WHO and the Global Fund, to review findings from recently collected data on the diagnostic network and planned for an expansion of GX in the country. In **Tanzania**, IDDS completed its procurement of EQA panels for GX machines to ensure high-quality results. One aspect of instituting GX use was **to expand TB diagnostic connectivity solutions**. IDDS did this in three countries this quarter. In **Cambodia**, IDDS worked with Savics, the Center for Tuberculosis and Leprosy Control (CENAT), and the USAID-funded Community Mobilization Initiatives to End Tuberculosis (COMMIT) project to develop the DataToCare (DTC) training and installation plan for the connectivity platform, which can provide faster access to laboratory results for multiple devices. The DTC platform was installed at 10 COMMIT-supported sites by a Savics technician, and IDDS worked with CENAT to promote training on the platform and a detailed implementation plan. In **Tanzania**, IDDS finalized a report of GX connectivity between January and September 2021 and supported the MoH to conduct GxAlert troubleshooting at 29 GX laboratories in 8 provinces, along with super users. A total of 36 participants were trained on use of the GxAlert system and additional personnel were trained on how to record and report results and manage inventory using the system. In **Zimbabwe**, IDDS trained 43 laboratory personnel on use and maintenance of the GxAlert system, how to manage inventory, and how to analyze data transmitted through the system.

IDDS dedicated efforts to **strengthen the leadership and management of the TB diagnostic network** in six countries this quarter. In four countries, IDDS worked with national level working groups and on strategy documents. IDDS organized a laboratory working group meeting with the NTP

in **Bangladesh**, completed documentation for the national TB laboratory TWG in **Tanzania**, and finalized the National Health Laboratory Strategy (2022–2026) in **Zimbabwe**. In **Cambodia**, IDDS finalized the situational analysis report of a TB and diabetes mellitus (DM) assessment in five operational districts (ODs), which IDDS will use to collaborate with CENAT and other stakeholders to develop a roadmap for scaling up TB-DM bidirectional screening in an additional five ODs and to develop a TB-DM TWG at the national level. In two countries—**Burma** and **India**—IDDS worked to improve coordination between laboratory tiers. In **Burma**, IDDS proposed a system for a simplified LIMS and revised the laboratory form for extensively drug-resistant TB testing to ensure that diagnostic services are linked within the LIMS. In **India**, IDDS organized the first Intermediate Reference Laboratory (IRL) and TB culture and drug susceptibility testing (C&DST) laboratory data review meeting in Bhopal, along with the CTD and other stakeholders. This meeting provided a platform for direct discussion and cross-learning across laboratories. IDDS piloted a supervisory checklist and feedback forms for the IRL in Pune in conjunction with a broad set of stakeholders. In addition, IDDS visited a TB C&DST laboratory in Delhi to assess progress and propose solutions to challenges related to panel testing and re-testing so that the laboratory could be certified by the National Tuberculosis Elimination Program for liquid culture and DST. IDDS also continued efforts to develop a “One-stop TB/DR-TB diagnostic solution” model for India by visiting the identified location for the initiative and collecting baseline information, including geography, status of National Tuberculosis Elimination Program facilities, access and coverage, TB rates, and volume of TB/DR-TB tests.

IDDS pursued strategic **engagements with the private sector** in two countries this quarter. In **India**, IDDS received approval from the state for the “One stop TB/DR-TB diagnostic solution” model in the Hisar district of Haryana, an accomplishment, given the need for consensus across multiple government and state entities, and has begun to identify a private laboratory to carry out this diagnostic innovation. In **Zimbabwe**, IDDS continued financial and technical support to develop the government-led TB-HIV Public Private Partnership framework.

At a global level, IDDS **contributed to global learning for TB**. Four IDDS country teams from **Bangladesh, India, Vietnam, and Zimbabwe** presented five posters and one satellite session at the 52nd Annual Union World Conference on Lung Health in October. Learning that was disseminated at the conference related to impact of TB on household expenditures, the impact of the COVID-19 pandemic on TB case detection, and childhood TB case detection using stool samples. IDDS also participated in an episode of the TB People Internet radio program in the **Philippines**, in which IDDS shared information on DR-TB and the potential of Truenat instruments for TB testing and highlighted the role of IDDS in the Introducing New Tools project, a joint initiative of the STOP TB Partnership and USAID. IDDS also continued its contribution to **furthering TB research**, with the development of 10 TB research protocols across 6 countries—**Bangladesh, Burma, Cambodia, India, Vietnam, and Zimbabwe**.

### **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 continuing to provide technical assistance to introduce new TB diagnostic tools, bolster diagnostic capacity of laboratory staff, and increase access to quality chest X-rays (CXRs).

IDDS worked extensively to **introduce new TB diagnostic tools and processes** in many countries this quarter. Specifically, in six countries, IDDS supported the expansion of Truenat as a TB diagnostic tool at lower-tier health facilities. In **Bangladesh**, IDDS adapted Truenat training materials and SOPs, developed data collection and reporting tools and job aids, and finalized the implementation plan. In

**Cambodia**, IDDS submitted the Truenat pilot protocol to a national institutional review board and worked with the Stop TB Partnership, Mobio, CENAT, and other stakeholders to develop a training and installation plan and adapt training materials for the country. In **India**, IDDS systematically analyzed retrospective data for 1,690 of 1,972 Truenat sites as part of a study of invalid and indeterminate specimens. The team accomplished this through visits to Truenat sites in Kerala and the IRL in Thiruvananthapuram to collect additional data and conduct root cause analysis on specimen results requiring repeat testing. In **Vietnam**, IDDS developed an implementation plan to assess the use of Truenat for TB and rifampicin resistance testing. In conjunction with the Stop TB Partnership, IDDS completed delivery of 38 Truenat machines in **Nigeria** and 20 machines in **Zimbabwe**. IDDS also trained 38 participants in **Nigeria** and 22 participants in **Zimbabwe** on how to use Truenat, revise TB diagnostic algorithms, and conduct operational planning. Also in **Nigeria**, IDDS helped procure ultra-portable X-ray/computer-aided detection (CAD) devices to increase access to digital X-rays to diagnose TB in rural settings. IDDS trained 37 radiographers and technical staff at a centralized training of trainers with the Stop TB Partnership, the Institute of Human Virology Nigeria, and Koninklijke Nederlandse Chemische Vereniging (KNCV) on use of the ultra-portable X-ray/CAD devices in regions in which there are no radiographers. IDDS also worked with the Stop TB Partnership to revise and translate training modules and facilitator guides for X-ray/CAD and Truenat implementation and adapted these to country contexts. Finally, IDDS contracted SmartSpot, an established *Mycobacterium tuberculosis* EQA provider in Africa to enable 263 sites in 8 countries (**Bangladesh, Cambodia, DRC, Kenya, the Philippines, Uganda, Vietnam, and Zimbabwe**) to begin to receive validated dry culture spot panels for Truenat sites this quarter, which will help assess performance of diagnostics in the field and target technical support to address challenges at troubled sites.

IDDS continued to **improve the diagnostic capacity of laboratory staff** this quarter through training and supportive supervision to revise diagnostic algorithms and incorporate new tools and processes to strengthen overall diagnostic capabilities at laboratories. In **Bangladesh**, IDDS conducted trainings on preventive maintenance of TB equipment for 23 hospital and regional reference laboratory staff, a 2-day training for 15 participants on processing and testing samples for extrapulmonary tuberculosis (EPTB) and childhood TB, and a 3-day line probe assay (LPA) training for 13 microbiologists, which is the first structured training ever provided to the National TB Reference Laboratory (NTRL) and Regional TB Reference Laboratory (RTRL) and will enable training materials to become a national resource for the NTP in expanding LPA use at the various RTRLs. IDDS also assisted to transition LPA and liquid culture testing from the NTRL to the Shyamoli RTRL to support decentralized MDR-TB testing at the RTRL for the Shyamoli, Rajshahi, and Rangpur divisions, which will eliminate the need for referrals, thus saving time and reducing costs. Also in **Bangladesh**, IDDS developed SOPs for EPTB and LPA and training materials for EPTB and stool processing. In **Burma**, IDDS collated local TB diagnostic guidelines, SOPs, and training materials such as video clips for an e-learning platform for the country to support quality diagnostics. IDDS also revised two SOPs to account for recent updates to second-line DST and submitted an infection control chapter for subnational facilities that is included in the national guidelines for TB infection control. In **Zimbabwe**, IDDS began work with ThulaSiso, a newly awarded partner, that will support the installation of solar systems in 50 Ministry of Health and Child Care (MoHCC) TB laboratories. ThulaSiso and IDDS began to verify the individual solar needs of the 50 laboratories to inform installation of systems that will provide uninterrupted power supply and allow continuous testing services for TB patients. IDDS also continued financial support to the MoHCC and the Ministry of Local Government and Public Works to install the modular laboratory procured previously through the Challenge TB funding mechanism, which will serve as a stopgap measure as the main Bulawayo NTRL is renovated.

To **expand stool-based GX testing for detection of pediatric TB** using the simple one-step method, IDDS signed an agreement with KNCV to provide the training in **Bangladesh, Burma, DRC, Malawi, Ukraine, and Vietnam**. IDDS also increased **access to quality CXR** in **Burma** and **Cambodia**. In **Burma**, IDDS conducted 2 trainings for 39 participants from nongovernmental organizations and the private sector on how to take TB CXR and developed training videos on CXR procedures. CXR is an important initial TB diagnostic and triage tool, and capacity building for CXR diagnosis improves early TB diagnosis. The training represented the first standardized training for CXR in the country and can lead the way for the private sector to adopt the Double X strategy for TB diagnosis, which uses both CXR and GX to increase TB case detection. In **Cambodia**, IDDS met with CENAT and other stakeholders to improve and operationalize the use of the social media Telegram platform for CXR.

**Table 3: Project outputs related to strengthening TB diagnostic networks for FY 2022 Q1 and the countries that contributed to these outputs**

TB IR 1.1: Gaps in diagnostic networks identified and essential components supported										
	TOTAL	Equipment Maintenance	Testing skills and procedures	New diagnostic tools	QMS	Diagnostic connectivity solutions	Laboratory diagnostic data analysis	TB DNA	Private sector engagement	Other diagnostic network topics
People Trained	158	19	13	113	19	80				39
SOPS, Plans, and Guidelines Developed, Revised, or Disseminated	4		1		1					2
TWG Group Meetings Held	10			1	1					8
Supervisory Visits	42		5		1	29				7
Pilots Conducted	1				1					
Assessment Reports Completed	6			1			3		1	1
People mentored	0									
Countries <sup>1</sup>										
Bangladesh		•	•	•						•
Burma			•							•
Cambodia										
Core TB				•			•			•
India			•	•	•				•	•
Tanzania										
Vietnam				•	•					
Zimbabwe						•				



## IMPLEMENTATION STATUS

Work plans and deliverables submitted in FY 2022 Q1 are summarized in the tables that follow.

### Work Plans Submitted and Approved in FY 2022 Q1

	Submitted/Resubmitted	Received USAID Approval in Q1
<b>GHS</b>	<ul style="list-style-type: none"> <li>Cameroon 10/13/2021</li> <li>DRC 11/29/2021, 12/13/2021, and 12/22/2021</li> <li>Ethiopia 10/19/2021 and 10/29/2021</li> <li>Guinea 10/15/2021</li> <li>Indonesia 10/12/2021 and 11/1/2021</li> <li>Kenya 10/14/2021 and 10/28/2021</li> <li>Liberia 10/14/2021 and 10/28/2021</li> <li>Mali 10/14/2021 and 10/28/2021</li> <li>Senegal 10/12/2021</li> <li>Tanzania 10/12/2021</li> <li>Uganda 10/12/2021</li> <li>Vietnam 10/12/2021</li> </ul>	<ul style="list-style-type: none"> <li>Cameroon 10/26/2021</li> <li>DRC (approved with comments) 12/15/2021</li> <li>Ethiopia 11/3/2021</li> <li>Guinea 10/26/2021</li> <li>Indonesia 11/10/2021</li> <li>Kenya 10/29/2021</li> <li>Liberia 11/3/2021</li> <li>Mali 10/26/2021</li> <li>Senegal 10/29/2021</li> <li>Tanzania 10/26/2021</li> <li>Uganda 10/26/2021</li> <li>Vietnam 10/26/2021</li> </ul>
<b>ARP for C-19F</b>	<ul style="list-style-type: none"> <li>Madagascar 10/7/2021</li> </ul>	<ul style="list-style-type: none"> <li>Guinea 10/5/2021</li> <li>Madagascar 10/14/2021</li> </ul>
<b>GHS EVD</b>	<ul style="list-style-type: none"> <li>DRC revision 10/21/2021 and 11/10/2021</li> </ul>	<ul style="list-style-type: none"> <li>DRC (revision) 11/18/2021</li> </ul>
<b>TB</b>	<ul style="list-style-type: none"> <li>Bangladesh 10/4/2021</li> <li>Burma 10/8/2021</li> <li>Cambodia 12/3/2021</li> <li>Core DR-TB Addendum 11/22/2021</li> <li>DRC 10/15/2021, 10/24/2021, and 11/5/2021</li> <li>India 11/5/2021 and 12/23/2021</li> </ul>	<ul style="list-style-type: none"> <li>Bangladesh 11/17/2021</li> <li>Burma 12/2/2021</li> <li>Core DR-TB Addendum (approved with contingencies) 12/17/2021</li> <li>India (approved with contingencies) 12/14/2021</li> <li>Vietnam 11/29/2021</li> </ul>
<b>Cross-Cutting</b>	<ul style="list-style-type: none"> <li>Annual Work Plan 11/5/2021</li> <li>MENA 10/6/2021</li> </ul>	

### Deliverables Submitted in FY 2022 Q1

	Key Deliverables Submitted to USAID during Q1
GHS	22
C-19F/ARP	3
EVD	6
IDSR	1
TB	15
<b>Total</b>	<b>47</b>

# GHS FY 2022 Q1 Achievements

## CAMEROON

### Quarterly Highlights

- IDDS submitted the first draft of the Cameroon GHS work plan to USAID on October 13 and received approval on October 26.

#### Bacteriology Diagnostics:

- IDDS recruited a senior AMR diagnostic consultant to continue to provide technical and mentorship support to the AMR pilot surveillance sites to implement national AMR SOPs and to reinforce skills and competencies on quality assurance for organism identification and AST. IDDS is building the capacity of human and animal laboratories to conduct core tests in the detection of priority AMR pathogens, including the capacity to generate more accurate and higher-quality results and contribute to improved AMR surveillance that integrates a One Health approach. IDDS will continue to disseminate the national standardized SOPs developed during FY 2020 to support the detection of priority AMR pathogens in all microbiology laboratories and in the 10 IDDS-supported sentinel surveillance sites.

#### COVID-19 Diagnostics:

- IDDS transported 82 specimens from 4 collection sites to the NPHL for genomic sequencing, which supports the national strategy for the detection of new variants.
- IDDS delivered 210 PCR plates to the NPHL to mitigate the stockout of the supplies. In addition, IDDS began the procurement process for the NPHL for general laboratory consumables, such as cryotubes, gloves, and pipettes.
- IDDS collaborated with the *Centre Pasteur du Cameroun* (Pasteur Center in Cameroon), the NPHL, and WHO to review the National Strategy for COVID-19 Genomic Surveillance and developed a data flow chart for tracing COVID-19 specimens from collection sites to the NPHL for genomic sequencing.
- In anticipation of an increase of inbound travelers to the country for the 2022 African Cup of Nations, and given the emergence of the Omicron variant, IDDS, in collaboration with the NPHL and the National Observatory of Public Health, organized a training for Frontier Health Posts staff on cross-border surveillance, safe specimen collection and transport, guidelines and procedures for prevention, and response to public health emergencies, including the COVID-19 pandemic, at the entry points. Twenty-three medical staff from across the country participated in the training in late December.
- IDDS is collaborating with the *Centre Pasteur du Cameroun* to place laboratory technicians at testing centers to conduct ongoing COVID-19 testing.

#### Surveillance:

- IDDS continues to support the implementation of pilot AMR surveillance in six human and two animal sentinel sites by providing training and mentorship support on AMR detection and



surveillance. This is the first time the country has initiated operational AMR surveillance at sentinel sites.

- IDDS provided technical support to the NPHL to organize the quarterly AMR data quality review workshop for sentinel surveillance sites. Data collected from January to November 2021 from the AMR pilot surveillance sites were reviewed for timeliness, consistency, and completeness according to the National AMR Surveillance Guidelines.
- IDDS supported the organization of the first International Microbiology Day 2021 in Yaoundé from November 25 to 26, at Falaïse Hotel. The Cameroon Society of Microbiology organized the conference, titled “Antimicrobial Resistance: The Next Pandemic?” during World Antimicrobial Awareness Week.

## Problems Encountered and Solutions

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

## Lessons Learned

- Close collaboration with government partners, GHS partners, and the USAID mission is important for the successful implementation of activities.
- Co-funding activities with other partner projects in the country helps save costs and harmonize efforts for more impact.

## FY 2022 Q1 Output Results



# DEMOCRATIC REPUBLIC OF THE CONGO

## Quarterly Highlights

- IDDS submitted the second draft of the DRC GHS work plan to USAID on December 13 and received contingent approval on December 15.

### Diagnostic Highlights:

- IDDS developed training materials based on the adapted laboratory equipment maintenance manual and trained 93 laboratory workers from the Eastern DRC region on effective laboratory equipment maintenance. The training materials include training modules, and a trainer's guide. This work responds to the need identified in the national laboratory and strategic plan 2021-2025 to prevent frequent equipment breakdown which is limiting access to accurate and timely laboratory results.
- IDDS finalized and submitted the laboratory mapping report and the specimen transportation and referral assessment report with recommendations.

### EVD Surveillance:

- IDDS hired a vehicle to transport specimens and commodities within the Beni Health Zone and neighboring areas. IDDS transported potential EVD specimens from collection sites to the INRB laboratory in Beni for GX testing. Upon request from the INRB, IDDS transported commodities, such as viral transport media and cryotubes, that were procured by other implementing partners. IDDS also transported 5,450 used and expired GX cartridges from Beni to Goma for proper waste disposal.
- IDDS conducted a supportive supervision visit to the INRB laboratory in Beni. In addition, the supervisory team had a meeting with laboratory technicians from INRB laboratories in Beni, Butembo, and Mangina and observed the EVD diagnostic testing process at the INRB laboratory in Beni. IDDS confirmed that specimens were tested on the same day that they were received at the laboratory. Unfortunately, the supervisory team was unable to visit INRB Butembo and Mangina due to the security instability in the regions.
- IDDS procured 500 GX EVD cartridges, which arrived in Kinshasa on October 1. IDDS collaborated with the INRB to transport the cartridges to Goma for handover in early December. These GX EVD cartridges were used in response to the new EVD outbreak detected in October. In addition, IDDS procured waste bins and trash bags for safe transport of used EVD testing materials from facilities in Beni, Butembo, and Mangina.

## Problems Encountered and Solutions

Problem	Resolution	Status
Security situation and the state of emergency in North-Kivu since May 2021	There was limited or authorized access only to non-secure areas and regular monitoring of the security situation. Security information was regularly checked.	In progress

Problem	Resolution	Status
Delay in the full approval of the FY 2022 GHS work plan	IDDS received contingent approval of the FY 2022 GHS work plan on December 15 and will resubmit it with the revised budget for final approval in Q2.	In progress

## Lessons Learned

- The close collaboration between IDDS and the three Provincial Health Divisions led to the successful completion of the training sessions to strengthen the capacity of laboratory workers on effective equipment maintenance. IDDS appreciated the selection of laboratory workers with experience in performing essential disease diagnostic methods.

## FY 2022 Q1 Output Results



No additional indicators to report in Q1

# GUINEA

## Quarterly Highlights

- IDDS submitted the first draft of the Guinea GHS work plan to USAID on October 15 and received approval on October 26.
- IDDS received approval on the second draft of the Guinea ARP work plan from USAID on October 5.

### Diagnostic Highlights:

- IDDS launched a specimen referral pilot in three IDDS-supported regions, and training on specimen collection, packaging, and transport was provided to 52 participants from the MoH, the Ministry of Animal Health, and the drivers. Following the training, the pilot phase was launched on December 17 in the three regions supported by IDDS (Faranah, Kindia, Mamou). IDDS tracked and monitored all phases of the specimen transport process from the prefectures to the regions and from the regions to the reference laboratories. In addition, IDDS closely monitored the temperature of the sample, location, number of samples sent, driver's name, taxi registration number, and other important identifying information to ensure that correct methods were applied, and sample integrity was maintained.
- IDDS developed an AMR surveillance data collection tool to monitor resistance strains in Guinea. This electronic data collection tool is an open-source system that will help Guinea launch the tracking of resistance strains at AMR surveillance sites and allow the country to enter AMR data into the Global Antimicrobial Resistance and Use Surveillance System.

### COVID-19 Diagnostics:

- IDDS conducted two training sessions in Conakry on COVID-19 detection using GX and RDTs in December. Fifteen participants from health facilities and microbiology reference laboratories in Conakry attended the GX training, and six participants from health facilities in Boke, Conakry, Forecariah, Macenta, and Pita prefectures attended the RDT training. The training included theoretical and practical topics, including specimen collection, biosafety, and quality management. Illustrated SOPs, which were developed with support from IDDS in 2020 with the Emergency Response Fund, were distributed to participants upon completion of training.
- IDDS initiated procurement of COVID-19 extraction reagents and PCR testing supplies for the six central reference laboratories in Conakry.

### EVD Surveillance:

- IDDS purchased cooler boxes and other necessary supplies such as triple packaging, to support a specimen collection, packaging, and transport training held in Kindia and Faranah in November.
- A pilot of the specimen transport, referral, and tracking system began on December 13 and will continue for 75 days. IDDS oversaw the process during the first week of the pilot and confirmed that the mobile specimen tracking application is functioning properly, and SMS messages were sent out during the transport process.
- IDDS procured laboratory reagents for Marburg and Lassa fever testing, and a handover ceremony was convened to officially donate the reagents to the *Agence Nationale de Sécurité Sanitaire*.

- IDDS completed a laboratory mapping activity of 55 laboratories in Nzérékoré and 9 additional laboratories in Kankan. The overall objective of this activity was to map the national network of public (across all tiers of the network) and private (at the national level) human and animal health laboratories across the country.

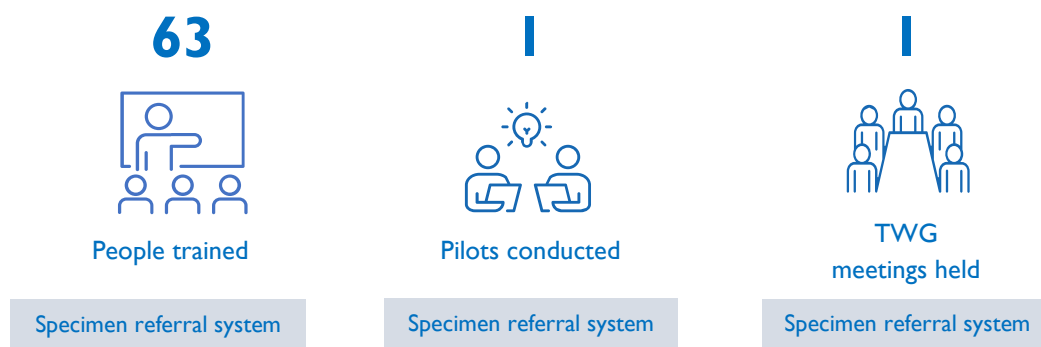
## Problems Encountered and Solutions

Problem	Resolution	Status
None		

## Lessons Learned

- For laboratory mapping, training two focal points on data analysis and the use of Plan Wise would assist with the data collection and reporting process. In addition, it would be beneficial to involve the regional laboratory managers in updating the mapping data on an ongoing basis.

## FY 2022 Q1 Output Results



# INDIA

## Quarterly Highlights

### COVID-19 Diagnostics:

- IDDS procured and delivered all remaining Truenat COVID-19 tests and associated reagents to two sites. In addition, the remaining GX COVID-19 cartridges were delivered to three sites.

## Problems Encountered and Solutions

Problem	Resolution	Status
None		

## Lessons Learned

- None

No indicator data to report this quarter

# INDONESIA

## Quarterly Highlights

- IDDS submitted the second draft of the Indonesia GHS work plan to USAID on November 1 and received approval on November 10.

### Diagnostic Highlights:

- IDDS finalized the curriculum document for the PREDICT Protocol Laboratory Training. This document will be used for training activities for six laboratories and will be followed by MoH training certification.

### Surveillance Highlights:

- IDDS completed the development of the “4-Way Linking Guidelines for Health Management in Human, Animal, and Environment Interface.” The Government of Indonesia will use the new guidelines and pilot them to determine how their implementation can be scaled up at the national level.
- IDDS completed development of the “Cross-Sectoral Integrated Surveillance Guidelines,” which will be used by the government and implemented in the pilot district to determine how their implementation can be scaled up at the national level.
- IDDS completed the development of the national *Sistem Informasi Zoonoses dan Emerging Infectious Diseases* (SIZE, or System for Zoonotic and Emerging Infectious Disease) Roadmap, and it was presented to the government to formalize it for the implementation of SIZE in the future.

## Problems Encountered and Solutions

Problem	Resolution	Status
It is challenging to develop documents (guidelines and roadmap) using an online approach because not all the input or suggestions from various participants can be included. In-person meetings will enable the participants to communicate directly and more effectively develop the documents.	IDDS conducted offline meetings to discuss in more detail and directly with the focal persons, and to complete the documents.	Addressed
The Government of Indonesia has merged several research institutions, including the Agency for the Assessment and Application of Technology, to a new agency, the National Research and Innovation Agency (BRIN). The SIZE 2.0 server was hosted at BPPT, which can no	IDDS and the government held several meetings to resolve the situation. SIZE 2.0 infrastructure, including supporting documents, will be transferred from BPPT to the Ministry of Communication and Information. The knowledge transfer will also be conducted. BPPT (currently BRIN) is committed to supporting the development of SIZE	Addressed

Problem	Resolution	Status
longer support the SIZE 2.0 implementation.	under the new bureau: Research Organization for the Assessment and Application of Technology BRIN. Addressed—a technical group has been established to support the migration of SIZE from BPPT to the Ministry of Communication and Information. It is estimated that this will be completed in FY 2022 Q2.	
SIZE 2.0 was not linked automatically to the MoH Early Warning, Alert and Response System, which needs to be updated.	IDDS and the government convened a meeting to resolve this issue. The knowledge transfer will be conducted with the new BRIN staff to continue the SIZE development. The Food and Agriculture Organization of the United Nations (FAO) will lead the process of upgrading SIZE 2.0. Currently, the SIZE 2.0 group has been established, and the process is being led by FAO and MoH. The trial process will be held in FY 2022 Q2 by BRIN.	Addressed
The Government is encountering difficulties determining the districts for the SIZE/One Health training implementation.	Several informal meetings and discussions were held to resolve this issue. WHO agreed to contribute and commit to train on One Health at the provincial level for a total of 34 provinces. IDDS will contribute to train on One Health and SIZE at the district level and will collaborate with FAO and the Ministry of Agriculture to select the priority districts for One Health training in FY 2022.	Addressed

## Lessons Learned

- Conducting in-person meetings for developing guidelines and the roadmap is more effective than virtual meetings because participants can be more active and focused during in-person meetings. The inputs, ideas, and suggestions delivered during in-person meetings are clearer.
- Maintaining regular communication and coordination with related ministries and institutions and other partners will support and foster the development process of guideline and roadmap documents.
- For virtual meetings, IDDS often experienced last-minute changes in resource persons and moderators leading up to each meeting. IDDS needed to follow the government's availability and adjust the schedule. Therefore, remaining adaptable to unpredictable situations is important.



## FY 2022 Q1 Output Results

15



TWG  
meetings held

Testing (1)  
Data analysis and use (14)

5



SOP, plans and guidelines  
developed

Testing (1)  
Data integration (3)  
Decree/regulation (1)

No additional indicators to report in Q1

# KENYA

## Quarterly Highlights

- IDDS submitted the second draft of the Kenya GHS work plan to USAID on October 28 and received approval on October 29.

### Diagnostic Highlights:

- IDDS provided onsite technical assistance to Malindi Sub-County Hospital Laboratory in preparation for assessment by the Kenya National Accreditation Services for compliance to requirements of ISO 15189:2012 medical laboratories standard. The Kenya National Accreditation Services assessed the laboratory from November 29 to December 2. For the first time, bacteriology tests, under which AMR detection tests fall, were included in the assessment. The assessment team identified two minor nonconformities that required corrective action, but ultimately recommended that Malindi Laboratory's accreditation include bacteriology tests on December 2. Accreditation of the bacteriology tests will boost confidence among clients and stakeholders on the quality of test results and the quality of the AMR surveillance data generated by the laboratory. IDDS will continue to provide ongoing technical assistance to the laboratory to fill gaps.
- IDDS facilitated discussions on automated equipment placement between Bungoma County Referral Hospital and Hass Scientific (a local distributor for manufacturer bioMérieux), providing mediation and technical guidance. In late November, the county hospital signed a contract with Hass Scientific for the placement of a VITEK 2 system, which automates bacterial identification and AST. The equipment was installed onsite on December 1, and laboratory personnel were trained on its use, specimen processing, testing, performance of quality assurance, and maintenance procedures. This equipment will improve laboratory capacity to detect AMR by facilitating quick and accurate identification of bacteria and their susceptibility patterns, which in turn, improve clinical management, patient outcomes, and AMR surveillance.

### Surveillance Highlights:

- IDDS organized a centralized hands-on training on the use of WHONET software for AMR data management and analysis. The training was held in Nairobi with 17 participants: 2 representatives (a microbiologist and quality officer) from each of the 5 IDDS-supported AMR surveillance sites, 4 representatives from the IDDS Kenya team, and 1 representative from the NPHL. The training was facilitated by two WHONET expert consultants and a member of the NPHL M&E team.

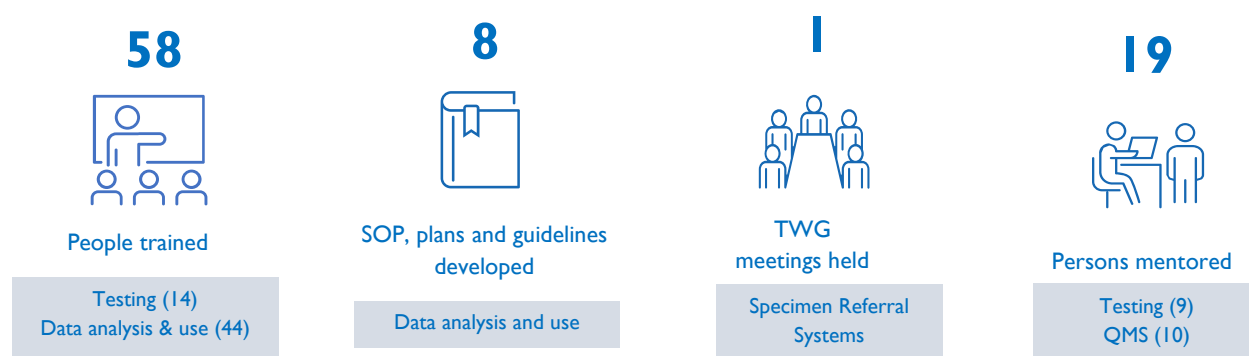
## Problems Encountered and Solutions

Problem	Resolution	Status
NPHL has staffing challenges, which have stalled some activities, such linking the Bungoma County Referral Hospital laboratory information system to the NPHL Central Data Warehouse and linking the Central Data Warehouse database to DHIS2.	While IDDS waits for NPHL to resolve its staffing challenges, IDDS has worked with Bungoma County to manually submit monthly AMR data using WHONET until the laboratory information system can be connected for automated data reporting. IDDS will also be partnering with the USAID-funded University of Nairobi Health IT project and the Foundation for Innovative New Diagnostics to support linkage for the Central Data Warehouse to DHIS2.	In progress

## Lessons Learned

- AMR surveillance information systems require a dedicated informatics/IT expert to maintain and guide systems operation for smooth capturing and transmission of data. Lack of a dedicated person at the NPHL has markedly affected data capturing and reporting from the surveillance systems to the national level due to systems connectivity delays.

## FY 2022 Q1 Output Results



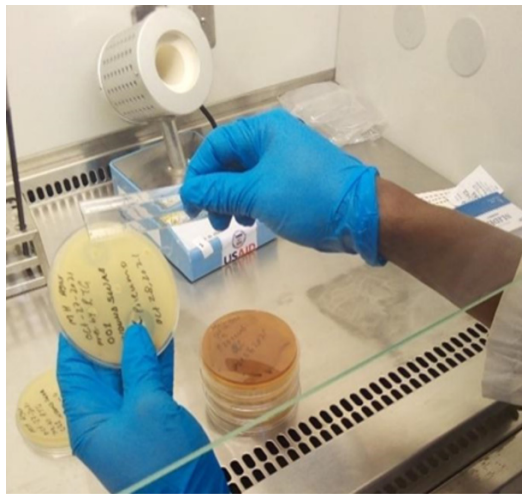
# LIBERIA

## Quarterly Highlights

- IDDS submitted the second draft of the Liberia GHS work plan to USAID on October 28 and received approval on November 3.

### Success Story:

#### Bacteriology Testing Services Launched in Liberia's Lofa County (See Annex B for full story)



### Diagnostic Highlights:

- IDDS conducted bacteriology specimen collection mentorship sessions for laboratory technicians and clinicians on the importance of requesting specimens for culture and antimicrobial sensitivity testing. Improving bacteriology specimen collection improves the quality of the specimen and the results. In addition, increasing clinicians' awareness of bacteriology services ensures the use of bacteriology services, which improves patient management.
- IDDS supported the installation of desktop computers at the three bacteriology testing laboratories. The computers will improve data capturing and data sharing with the AMR Unit and the NDD of the NPHRL.

### COVID-19 Diagnostics:

- IDDS provided technical assistance in Bong, Lofa, and Nimba Counties on safe and timely specimen collection, packaging, and transportation to the NPHRL for PCR testing. IDDS also provided technical assistance to county laboratories for antigen RDT.
- At Phebe Hospital Laboratory in Bong County, IDDS coordinated the timely processing of COVID-19 EQA proficiency testing panels on GX machines and facilitated the submission of the panels to the proficiency panel providers.
- IDDS provided technical assistance to the NPHRL to assess the inventory of COVID-19 diagnostic commodities and plan for distribution and redistribution of COVID-19 RDTs that are nearing expiry.

- IDDS procured Qiagen RNA extraction kits, which will support 2,000 COVID-19 tests, 8,000 specimen collection kits, and required personal protective equipment for the ongoing COVID-19 response.

#### **EVD Surveillance:**

- IDDS arranged for installation and user training of chemistry and hematology analyzers at Tellewoyan Memorial Hospital and G.W. Harley Hospital and provided the associated reagents.

## **Problems Encountered and Solutions**

<b>Problem</b>	<b>Resolution</b>	<b>Status</b>
Discussions with the U.S. Government partners delayed implementation of NTW-3. IDDS engaged Riders International Liberia for specimen transport from IDDS-supported districts.	IDDS convened a meeting with Riders International and provided details on the sites, frequency, and duration of transportation.	In progress
IDDS adjusted the dates of the bacteriology specimen collection awareness meeting to accommodate MoH AMR Unit staff availability.	IDDS engaged the MoH AMR Unit in dialogue to discuss the importance of the awareness meetings and established revised meeting dates for January 2022.	Addressed
Delays by the MoH auditor in sharing audit reports delayed addressing the identified gaps.	IDDS engaged the auditor and their supervisor, emphasizing the importance of timely feedback to audited laboratories.	Addressed
Low bacteriology specimen flow	IDDS conducted awareness meetings that emphasized demand creation through health talks and continuously engaged with clinicians and physicians.	In progress

## **Lessons Learned**

- Engaging clinicians at the inception of the program ensures continued demand for these services as the program matures.
- Empowering and motivating staff at the county level on the IDDS activities ensures sustainability.
- Engaging the MoH at both the county and national levels ensures that some challenges, such as staff shortages, are addressed.
- Continuously engaging the NDD regarding the work IDDS is conducting ensures transparency, awareness, and country ownership.

## FY 2022 Q1 Output Results

**3**

SOP, plans and guidelines  
developed

Equipment Maintenance (1)  
Biosafety and Biosecurity (1)  
Testing (1)

**1**

TWG  
meetings held

Other diagnostic network  
related topic

**32**

Persons mentored

Bacteriology testing (20)  
COVID-19 testing (12)

# MADAGASCAR

## Quarterly Highlights

- IDDS submitted the second draft of the Madagascar EVD work plan to USAID on October 7 and received approval on October 14.

### Diagnostic Highlights:

- IDDS finalized development of the National Laboratory Strategic Plan.
- IDDS drafted a report on the number of COVID-19 tests performed on the Mahajanga PCR platform.
- IDDS hosted a bacteriology training workshop for *Reseau de Laboratoires de Madagascar* (Laboratory Network of Madagascar) biologists and laboratory technicians.

### Surveillance Highlights:

- IDDS developed a report that outlined recommendations on next steps to strengthen the surveillance system and integrate surveillance data.
- The June IDSR bulletin was finalized and submitted to USAID.

### COVID-19 Diagnostics:

- IDDS collaborated with MoH's Department of Health Watch, Epidemiological and Response Surveillance team, the Diana Region public health director, and a medical inspector from the Ambilobe District Public Health Service to conduct a supportive supervision visit to Ambilobe district; the supervision team visited five health centers, a district-level reference hospital, the Ambilobe District Public Health Service, and the Diana Region Public Health Directorate. They assessed current practices and provided onsite training for the collection, cleaning, organization, and management of COVID-19 surveillance data. The team also provided instruction and support for data quality control by comparing the data in the IDSR database between the region/district level and the national level to check for consistency, identify problems, and resolve problems locally. Finally, the team provided training on data management and electronic reporting of COVID-19 surveillance data.
- IDDS provided financial and logistic support for three two-day bulletin development workshops. During these working sessions, the Department of Health Monitoring, Epidemiological Surveillance, and Response, IDDS, and other implementing partners (such as WHO, the U.S. President's Malaria Initiative Measure Malaria project, USAID's IMPACT project, and the *Institut Pasteur de Madagascar*, among others) reviewed surveillance data from the IDSR database and compiled them into a bulletin. Two of the bulletins were disseminated by e-mail and paper to the presidency, prime minister, ministers, secretary general, general director of preventive medicine, central directors at the MoH, public health regional directors, inspector doctors, USAID mission, and other implementing partners. The bulletins will be used to inform decisions about the pandemic response in Madagascar.

## Problems Encountered and Solutions

Problem	Resolution	Status
Delay in the finalization of the FY 2022 work plan	IDDS initiated discussions for the planning the FY 2022 GHS activities. IDDS held three meetings with partners (MoH and <i>Fondation Merieux</i> ) and organized one meeting with the USAID mission and <i>Fondation Merieux</i> . IDDS is currently finalizing a full work plan and budget for submission.	In progress

## Lessons Learned

- None

## FY 2022 Q1 Output Results

41



People trained

Equipment Maintenance



# MALI

## Quarterly Highlights

- IDDS submitted the first draft of the Mali GHS work plan to USAID on October 14 and received approval on October 26.

### Diagnostic Highlights:

- IDDS provided technical and financial support to the INSP to hold a meeting of the multisectoral committee for laboratory system strengthening. The meeting participants included the 15 multisectoral committee members from the key ministries of the One Health platform. The objectives of the meeting were to present the laboratory equipment maintenance procedure for the INSP and the research protocol: “Antibiotic resistance of E. coli strains isolated from ruminants in the peri-urban area of Bamako.”

### COVID-19 Diagnostics:

- IDDS provided technical and financial assistance to the *Direction Générale de la Santé et de l'Hygiène Publique* (General Directorate of Health and Public Hygiene) to conduct supportive supervision visits to Bamako, Kayes, Koulikoro, Ségou, and Sikasso regions, which focused on assessing needs at the facilities visited, reviewing COVID-19 data management and reporting practices, case detection practices, briefing staff on the implementation of national technical guidelines, and providing feedback and mentorship as needed.
- IDDS provided logistics support and technical assistance to the *Direction Général de la Santé et de l'Hygiène Publique* (General Directorate of Health and Public Hygiene) to hold a four-day workshop on harmonization of COVID-19 data from national, subnational, and facility databases. Eleven databases were reviewed, discrepancies were reconciled, and databases at all levels were revised.
- IDDS procured COVID-19 RDT kits and other required consumables for specimen collection and testing.

### Surveillance Highlights:

- IDDS attended two workshops for updating and validating the national IDSR guide. This is an updated third edition of the national IDSR guide for the country as recommended by WHO. This new guide serves as a reference document for the implementation of surveillance activities, including CBS, in Mali.

### EVD Surveillance:

- IDDS traveled to Kangaba for the second and third supportive supervision visits, and met with the referral health center staff, including technical directors and CHWs. During the supervisory visit, IDDS technical advisors reviewed the data collection and reporting process and provided onsite coaching as needed.
- IDDS conducted a training on PCR testing to detect EVD in December. Participants represented central laboratories in Bamako and three regional hospitals in Mopti, Ségou, and Sikasso. The training combined theoretical and practical approaches and was well-received by participants.

## Problems Encountered and Solutions

Problem	Resolution	Status
None reported		

## Lessons Learned

- None.

## FY 2022 Q1 Output Results

14



People trained

EVD PCR training

2



TWG  
meetings held

Equipment maintenance (1)  
COVID-19 surveillance (1)

5



Supportive  
supervision visits

COVID-19 testing

# PHILIPPINES

## Quarterly Highlights

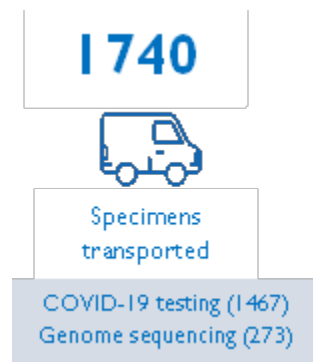
### Procurement:

- In December, IDDS purchased 100 specimen transport boxes and 87 rtPCR extraction kits, which will provide 8,700 COVID-19 tests for the Bulacan Medical Center.

### COVID-19 Diagnostics:

- IDDS provided specimen transport support in Bulacan, Palawan, and Rizal provinces. In addition, IDDS transported a subset of specimens from collection sites in Bulacan and Rizal provinces to the Philippine Genome Center in Manila for whole genome sequencing.
- IDDS rented vehicles for the specimen transport activities in Cavite, Isabela, and Laguna provinces and coordinated with local government units to identify specimen collection sites in these provinces.

## FY 2022 Q1 Results



# SENEGAL

## Quarterly Highlights

### Success Story:

**IDDS Supports the Rollout of the Third Edition of the Integrated Disease Surveillance and Response Guidelines in Senegal (See Annex B for full story)**

### Diagnostic Highlights:

- IDDS developed a summary of all reports shared with the Directorate of Laboratories during FY 2021 and met with them in December to discuss the FY 2022 work plan and the selection of two additional laboratories to be supported by IDDS, and to ensure alignment with the current country priorities.

### Surveillance Highlights:

- IDDS followed up with the seven original IDDS-supported diagnostic laboratories for the AMR reports into DHIS2. The Tivaouane, Linguere, Guediawaye, and Kaffrine QI data reports have been completed; these facilities are now reporting on a regular basis. Performance comparisons have revealed that only IDDS-supported facilities are providing regular data reports, compared to non-IDDS-supported facilities.
- IDDS, in collaboration with MoH's Division of Health Information Systems, has completed the selection of two new regions (Kolda and Kédougou) to be supported and included in the surveillance data quality assessments being conducted in-country. IDDS developed terms of reference for training sessions, which were validated by the MoH.

### EVD Surveillance:

- IDDS provided technical assistance to the MoH to update the EVD surveillance tools and materials and convened a final meeting for validation of the tools in October. The Directorate of Prevention will share the finalized tools with health districts.
- Based on feedback from the Epidemiological Surveillance TWG, the IT vendor made modifications and updated the SMS-based early warning system module for EVD and other hemorrhagic fevers. The module was finalized in October and added to the existing SMS early warning system that is in place for the COVID-19 pandemic. The Directorate of Prevention rolled out the new module in November.

## Problems Encountered and Solutions

Problem	Resolution	Status
It has been challenging launching activities in diagnostic facilities; the Directorate of Laboratories has requested a report that summarizes all activities completed in FY 2021.	IDDS developed a report that was shared with the Directorate of Laboratories.	Addressed

## Lessons Learned

- Close monitoring of diagnostic facility activities enables the IDDS team to provide complete and timely AMR data to the MoH.

## FY 2022 Q1 Output Results



# TANZANIA

## Quarterly Highlights

### Success Story:

**Two USAID-Funded Sister Projects Collaborate to Tackle Antimicrobial Resistance in Tanzania (See Annex B for full story)**



### Diagnostic Highlights:

- IDDS worked with the NPHL to finalize procurement and clearance of standard organisms (started in FY 2021), which will be completed in January 2022. The standard organisms will be used by the NPHL to implement quality control and EQA at AMR surveillance sites across Tanzania.

### COVID-19 Diagnostics:

- IDDS, in collaboration with the NPHL, the Medical Stores Department, and the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC), conducted a five-day training on supply chain management. Seventeen laboratory staff from four COVID-19 testing laboratories—Mount Meru Hospital in Arusha region, Dodoma Hospital in Dodoma region, Mbeya Zonal Hospital in Mbeya zone, and Bugando Medical Centre in Lake zone—attended the training. The objective of the training was to provide staff from subnational laboratories with the knowledge and skills to manage their stocks of laboratory supplies needed for COVID-19 testing using available logistics management tools and to forecast and quantify laboratory commodities. This will ensure that laboratory stockouts do not interrupt COVID-19 testing at these sites, which is especially critical during emergency response.
- IDDS provided support to the MOHCDGEC to hold a workshop to review the WHO Laboratory Assessment Tool for SARS-CoV-2 testing and adapt it to the Tanzanian context. IDDS is providing ongoing support to the MOHCDGEC to assess the capacities of eight subnational hospitals to conduct COVID-19 testing using this revised tool. The assessment teams began fieldwork in November, and eight laboratories (Morogoro regional referral hospital [RRH], Iringa RRH, Katavi RRH, Maweni RRH, Kagera RRH, Ruvuma RRH, Mtwarra RRH, and Kilimanjaro Christian Medical Centre) were visited and assessed for their capability to carry out rtPCR testing. The final report from the assessments is currently under development and will be used to inform decentralization of COVID-19 testing across the country.

- IDDS provided support to the MOHCDGEC to host a workshop for the development of genomic sequencing specimen management procedures, which will ensure that specimens referred to genomic sequencing facilities from collection points and PCR testing laboratories meet standard quality requirements. Laboratory experts from four PCR testing laboratories (Mbeya, Dodoma, Arusha Mount Meru, and Bugando-Mwanza) and three genomic sequencing laboratories (NPHL, Sokoine University of Agriculture, and Kibong'oto Infectious Disease Hospital) participated in the workshop. Following validation, the procedures will be put into practice at PCR testing laboratories.

### Surveillance Highlights:

- IDDS developed a standardized supportive supervision checklist for AST of wound site specimens, which will enable AMR surveillance supervisors to plan and conduct a coordinated supervisory activity across AMR sentinel sites electronically using the Afya SS platform in FY 2022 Q2. The enhanced laboratory performance, quality service delivery, and use of data will lead to improved reporting across the IDDS-supported sentinel sites: Benjamin Mkapa Hospital in Dodoma, Maweni RRH in Kigoma, Temeke RRH in Dar es Salaam, and Morogoro RRH in Morogoro. In addition, IDDS developed a presentation on pilot wound site AMR data from IDDS-supported sites and presented findings to the National AMR Surveillance and Research TWG. Moving forward, IDDS's goal will be to build on these activities to enhance AST performance and AMR data collection, analysis, and reporting for urine, blood, and wound specimens at IDDS-supported sites.
- In November, IDDS, in collaboration with the USAID mission, the MoH, and the USAID-funded MTaPS project, conducted a joint site visit at Kigoma Regional Hospital, the site jointly supported by IDDS (AMR surveillance) and MTaPS (antimicrobial stewardship). The visit aimed to improve AMR data sharing and use across the different interventions to enhance synergy and complement the ongoing AMR interventions, including surveillance, infection prevention and control, and antimicrobial stewardship.
- IDDS initiated support for the implementation of National AMR Surveillance Framework in animal health surveillance sites by engaging relevant stakeholders (i.e., FAO). FAO shared the tool for Laboratory Capacity Assessment for AMR Surveillance, which will illustrate existing laboratory and surveillance capacity, equipment and supply needs, personnel capacity, and training needs.

## Problems Encountered and Solutions

Problem	Resolution	Status
The country experienced a surge of COVID-19 cases in Q1, and the project activities were mainly focused on implementing COVID-19 response activities.	Implementation of FY 2022 GHS activities to pick up in Q2.	Addressed

## Lessons Learned

- Joint site visits by the national government, USAID mission, and other implementing partner organizations enhance collaboration, information sharing, and data use for the improvement of mutual project interventions, not only at the national level but also at the facility level.

## FY 2022 Q1 Output Results

17



People trained

COVID-19 supply chain  
management



# THAILAND

## Quarterly Highlights

### Diagnostic Highlights:

- With IDDS's technical and administrative support, a virtual conference was convened in October. Twenty participants attended, including representatives from the RPHL Network, Brunei Darussalam, Myanmar, Singapore, Philippines, Nepal, Thailand, RPHL laboratory experts, and key development partners, including FAO, the Ministry of Public Health, the U.S. Centers for Disease Control and Prevention, USAID's Regional Development Mission for Asia, Integrated Quality Laboratory Services, and DMSc. A technical session on "COVID-19 Laboratory Diagnosis in the Association of Southeast Asian Nations (ASEAN) Country" was delivered by Dr. Archawin Rojanawiwat, Director of the Thai National Institute of Health, through a video clip (posted on [www.therphl.net](http://www.therphl.net)).
- IDDS finalized an inventory of laboratory experts, which the RPHL Secretariat and DMSc will upload to the RPHL website. This will benefit the RPHL Network in sharing their experiences and exchanging expertise on emergency preparedness of emerging disease across the region. In addition, IDDS successfully transferred support for the RPHL website to the RPHL Secretariat and the DMSc team. The RPHL Secretariat and the DMSc team have been updating and supporting the content of the RPHL website since October, including uploading the documents and video clips onto the website.
- In preparation for closeout of activities in Thailand, IDDS developed a transition plan to outline responsibilities, convened a series of handover meetings and briefings, and then worked closely with the new DMSc director and staff to ensure a smooth and complete handover of project activities.

## Problems Encountered and Solutions

Problem	Resolution	Status
There was a staff transition of the new director of National Institute of Health and DMSc.	A new director has been announced and introduced to the RPHL Network. He is very supportive but needs time to fully grasp the goal and activities of RPHL Network. The meetings between the director of the National Institute of Health and DMSc were organized to introduce the RPHL Network and explain the key activities planned.	Addressed
There was a transition of the staff responsible for the RPHL website.	The IT staff from the DMSc team who initially supported the RPHL website changed, and IDDS needed to conduct re-training for new staff and the RPHL Secretariat team to cover uploading content to the website, maintaining the website, transferring the website, and making data accessible. The new staff have experience in both laboratory and IT, and the team is confident that they can take over and maintain the RPHL website.	Addressed

## Lessons Learned

- Staff turnover is a usual process in the Government of Thailand, and the new staff takes time to understand the project activities; therefore, sufficient time should be planned for the activities. In addition, re-training and refresher trainings should be budgeted for the new staff.
- There were many uncertainties during the COVID-19 pandemic for organizing any in-person meeting or workshop. Therefore, a risk mitigation plan should be ready if an in-person meeting is not allowed due to COVID-19 restrictions.
- Handing over project activities to the government or stakeholders is a slow process; an early consultation with the counterparts and stakeholders is helpful.

## FY 2022 Q1 Output Results

Insert here.

# UGANDA

## Quarterly Highlights

- IDDS submitted a draft of the Uganda GHS work plan to USAID on October 12 and received approval on October 26.

### Diagnostic Highlights:

- None to report during this quarter

### Surveillance Highlights:

- None to report during this quarter

## Problems Encountered and Solutions

Problem	Resolution	Status
IDDS Uganda submitted an exemption allowance memo (waiver) to enable Uganda government officials to participate in IDDS activities. This was submitted on November 16, and the team continued to follow up with the USAID mission on the outcome; no activities could proceed without participation from government officials.	Continuous engagement was required with the USAID mission Global Health Security Agenda advisor, who followed up with the contracting office at the mission. IDDS received approval of the exemption memo on December 15; therefore, all proposed work plan activities will commence in Q2.	Addressed

## Lessons Learned

- Submission of the request for the exemption memo approval needs to start early because it requires four to eight weeks to obtain approval.

## FY 2022 Q1 Output Results

1



SOP, plans and guidelines  
developed

Data analysis and use

# VIETNAM

## Quarterly Highlights

- IDDS submitted a draft of the Vietnam GHS work plan to USAID on October 12 and received approval on October 26.

### Success Story:

**IDDS Helps Improve Reporting into Vietnam's Animal Health Information System (See Annex B for full story)**

### Diagnostic Highlights:

- IDDS worked with regional public health institutes and regional animal health offices to develop SOPs needed for both the human and animal SRS pilots. The IDDS team collaborated with the National Institute of Hygiene and Epidemiology to develop a preliminary version of a specimen information management system, which will support the SRS pilots for both the human and animal health sectors in the three provinces. The initiation of the SRS pilot to support the specimen management system in the three provinces will help establish a formal human SRS for the first time in the pilot provinces. The pilot will serve as the first step toward the development of a national SRS. The specimen information management system will significantly assist in the management, monitoring, and evaluation of SRS pilot data.

### Surveillance Highlights:

- IDDS worked closely with the Department of Animal Health, regional animal health offices, provincial Sub-Departments of Animal Health, and FAO to improve the VAHIS, based on feedback obtained from provincial Sub-Department of Animal Health users. The improvements in the VAHIS have made the data entry and management process much smoother and easier, especially for provincial staff. This contributed to increases in reporting rates, timeliness, and completeness of reported outbreak data in the animal health system.

## Problems Encountered and Solutions

Problem	Resolution	Status
The ongoing COVID-19 pandemic has caused delays in some project activities as well as availability of government partners, especially human health agencies.	Project activities that require travel and in-person interaction were organized as soon as COVID-19 restrictions in IDDS-supported provinces were lifted. For example, when Binh Dinh province removed the restriction in November, the team immediately organized an in-person meeting and training to initiate the SRS pilot in the province. The same activities were done in Thai Nguyen province in December.	In progress

## Lessons Learned

- Some discussion meetings that had been planned to be held in person can be done virtually effectively if they are well organized in terms of content and timeline. It is recommended, however, that trainings occur in person due to the high level of engagement and concentration required from participants.
- During the pandemic, project activities needed to adapt to national and provincial public health policies on COVID-19 control and prevention. Thus, IDDS adapted activity implementation plans according to the current policy of each province (e.g., attempting to implement activities whenever travel restrictions are loosened in each province).

## FY 2022 Q1 Output Results



## Integrated Disease Surveillance and Response

Through collaboration with the WHO African Regional Office, IDDS provided support for IDSR in two countries—Cameroon and Senegal.

### Quarterly Highlights for Cameroon

- All Cameroon activities were completed in FY21.

### Quarterly Highlights for Senegal

- IDDS Senegal supported the district level training of 59 nurses in three districts of the Tambacounda region: Koumpentoum, Maka Colibantang, and Tambacounda for the third edition IDSR training. The sessions were aimed at training head nurses on entry of IDSR data into DHIS2.

### Problems Encountered and Solutions

Problem	Resolution	Status
None		

### Lessons Learned

- None

### FY 2022 Q1 Output Results



# TB FY 2022 Q1 Achievements

## CORE TB

### Quarterly Highlights

- IDDS submitted the second draft of the project year 2 Core TB DR-TB work plan addendum to USAID on November 22 and received contingent approval on December 17.
- IDDS submitted a draft of the FY 2022 Core TB expansion work plan on November 24 and received partial approval for the Truenat related work.

### Diagnostic Highlights:

- IDDS updated the TB-NET tool, used to conduct the TB DNA, into Airtable, a cloud-based database platform, which will ensure data quality, enable survey version control, and feed up-to-date questions to the existing mobile application for the TB DNA. The tool was also updated to include questions related to the capacity and availability of DST.
- IDDS presented two laboratory diagnostic network spatial analyses to the NTP in Kenya on November 2 and to the NTP in DRC on November 24. The results have been used by the respective NTPs to inform placements of the Truenat rapid molecular testing instruments. Another laboratory diagnostic network spatial analysis was presented to USAID Washington and to USAID Zambia on December 21. IDDS also supported data collection and began data analysis for spatial analyses in Burma, Ethiopia, the Philippines, and Tanzania this quarter.
- IDDS and the Stop TB Partnership delivered 20 Truenat instruments in Zimbabwe and 38 instruments in Nigeria. IDDS also provided centralized Truenat training for 22 people in Zimbabwe and 38 in Nigeria.
- IDDS trained 37 trainers on use of the ultra-portable X-ray/CAD devices, procured by Stop TB Partnership, that will increase access to digital X-ray for TB diagnosis in rural settings in Nigeria. The training took place in partnership with the Stop TB Partnership, the Institute of Human Virology Nigeria, and KNCV.
- Four IDDS country teams from India, Bangladesh, Vietnam, and Zimbabwe presented five posters at the 52nd Annual Union World Conference on Lung Health held in October. Poster titles included: *“Expenditure incurred by households for TB diagnostic services during hospitalisation in India,” “Impact of the Covid-19 pandemic on TB notification rates in high-burden states in India,” “Impact of the Covid-19 pandemic on TB case detection using GeneXpert, Dhaka, Bangladesh,” “Childhood TB case detection by culturing samples submitted for Xpert testing at the National TB Reference Laboratory Zimbabwe, January 2018–December 2020,”* and *“Community-based stool specimen collection, storage and transport to improve TB diagnosis in children”*. IDDS also presented a satellite session, titled *“Infectious Diseases Detection and Surveillance (USAID-IDDS) resilience strategies to mitigate Covid-19,”* with participation by IDDS teams from Bangladesh, India, Tanzania, and Zimbabwe.

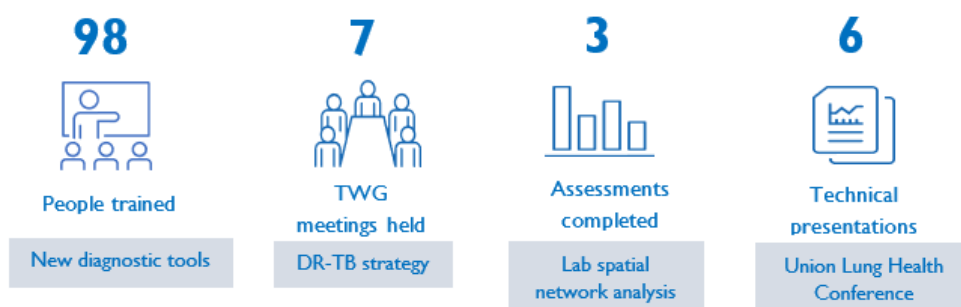
## Problems Encountered and Solutions

Problem	Resolution	Status
Lack of validated EQA panels to assess the effectiveness of Truenat instrument implementation	IDDS contracted with SmartSpot to provide EQA panels for FY 2022.	Addressed—The first batch of EQA panels was distributed in FY 2022 Q1.

## Lessons Learned

- EQA participation is essential to assess the effectiveness of Truenat implementation and identify labs with weaknesses in their test systems so additional supportive site visits and mentorship assistance can be provided.

## FY 2022 Q1 Output Results





# BANGLADESH

## Quarterly Highlights

- IDDS submitted the third draft of the FY 2022 Bangladesh TB work plan to USAID on October 4 and received approval on November 17.

### Success Stories:

**Filling the Extra-pulmonary Tuberculosis Diagnosis Gap in Bangladesh (See Annex B for full story)**



**Organizing Bangladesh's First Training for Line Probe Assay Testing (See Annex B for full story)**

### Diagnostic Highlights:

- IDDS provided a 3-day training on use of LPA for 13 NTRL and RTRL microbiologists, which is the first time such a structured training has been provided. The training was implemented in partnership with the NTP and Hain Life Sciences, the manufacturer of LPA, and is pivotal in enabling laboratory staff to use LPA and interpret results accurately. The LPA training materials are an essential resource for the NTP to meet the growing demand for LPA training as the technology is being expanded through different RTRLs.
- IDDS organized a two-day training on processing and testing specimens for EPTB and childhood TB for seven microbiologists and eight medical technologists from the NTRL and Shyamoli TB Hospital RTRL. The lack of skilled laboratory staff in processing and testing EPTB specimens and stool is a major problem in the detection of EPTB and childhood TB. The IDDS-developed training course enables the NTP to expand the number of skilled laboratory staff across the country to increase accurate diagnosis of different kinds of EPTB and childhood TB.

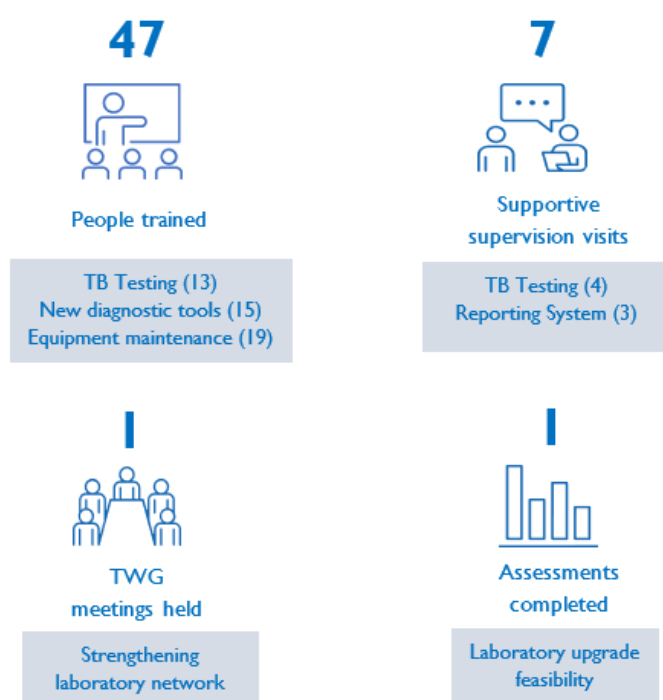
## Problems Encountered and Solutions

Problem	Resolution	Status
NTP stopped sharing TB data with IDDS.	Met with the new line director of the NTP and briefed him on the need for and use of TB data by IDDS. The meeting followed an in-person meeting with the NTP laboratory and M&E focal persons to send specific instructions to the labs to share data with IDDS.	Addressed
NTP's bureaucratic process delayed planned implementation of activities.	This problem continues to hamper project implementation.	In progress

## Lessons Learned

- Monthly progress review meetings involving the NTP and other in-country stakeholders are critical for coherent and planned implementation of activities.
- Continuous interaction with NTP staff is important to reduce delays in approval and implementation.

## FY 2022 Q1 Output Results



TB indicators will be reported once national TB reports become available. At time of submission, data not available.

# BURMA

## Quarterly Highlights

### Success Story:

**Ensuring Continuing Quality of Tuberculosis Diagnosis in Burma (See Annex B for full story)**



- IDDS submitted the first draft of the FY 2022 Burma TB revised work plan to USAID on October 8 and received approval on December 2.

### Diagnostic Highlights:

- IDDS strengthened the CXR diagnosis capacity of nongovernmental organizations and the private sector by developing a training curriculum, materials, and practical training videos, which were used to train 39 participants from 10 organizations and 5 private hospitals. Pre- and post-training assessments indicated an improvement in both knowledge and skills. CXR is an important initial TB diagnostic and triage tool, and this first standardized training for CXR in the country represents an opportunity to improve early diagnosis for TB and support private sector adoption of the Double X diagnostic strategy (using CXR and GX).

## Problems Encountered and Solutions

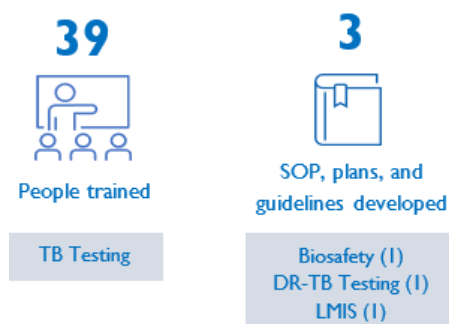
Problem	Resolution	Status
The ongoing coup d'état limited access to government facilities and staff. Many TB services are still suspended, and Internet communications are severely restricted. A concern remains that the Internet might shut down completely with no notice.	IDDS staff continue to work from home and perform remote work as connections allow. The revised work plan commits 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.	In progress

Problem	Resolution	Status
Due to the lack of a central coordinating mechanism for TB control activities in Burma and the disruption of regular communication channels, there are persistent challenges in coordinating with the NTP, the NTRL, and other TB implementing partners. There is no responsible body to synchronize partners' TB control activities across donors and geographical areas. As a result, many planned IDDS activities at the national level are delayed.	<p>IDDS worked closely with USAID and participated in coordination meetings to update activities and plans. IDDS proactively identified and asked to collaborate with potential partners to synergize efforts.</p> <p>IDDS is recruiting a coordination consultant to reestablish regular communication channels with the NTP and the NTRL to resume implementation of activities.</p>	In progress

## Lessons Learned

- For laboratory and diagnosis technologists, hands-on training with practical sessions is believed to have the highest impact. However, due to COVID-19, travel restrictions, and the political crisis, in-person trainings could not be conducted. To address the missing practical sessions, IDDS developed laboratory training video clips for TB diagnosis to better illustrate SOPs. These videos were distributed to TB implementing partners to use as a practical reference for trained and newly recruited laboratory technicians.
- To be resilient to major political, pandemic, or other events, having a mix of public and private TB services will be important.

## FY 2022 Q1 Output Results



NB: For Burma, TB indicators are reported annually

# CAMBODIA

## Quarterly Highlights

- IDDS submitted the second draft of the FY 2022 Cambodia work plan to USAID on December 3.

### Diagnostic Highlights:

- IDDS finalized the DTC training and installation plan. With this plan, staff from the 10 COMMIT-supported ODs will be trained on how to use DTC, and laboratories will have DTC software on their GX machines.
- IDDS finalized the Truenat training and installation plan, which will enable staff at 15 selected sites to be trained and Truenat machines installed.
- IDDS finalized the CXR Telegram assessment report and is working with CENAT and other stakeholders to improve the CXR Telegram reading and interpretation platform.
- IDDS finalized the situational analysis report of the TB-DM assessment in five COMMIT-supported ODs and put in place terms of reference for a TWG for TB-DM. The situational analysis report will lead to the development of a roadmap to scale up TB-DM bidirectional screening in an additional five COMMIT-supported ODs.

## Problems Encountered and Solutions

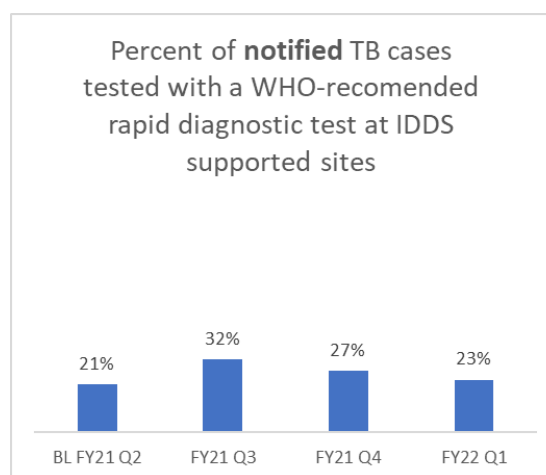
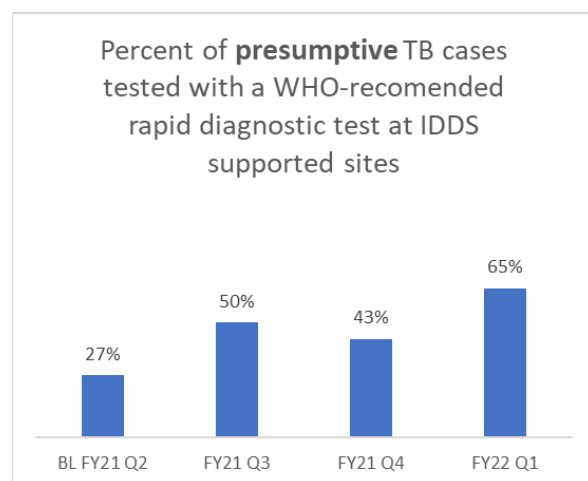
Problem	Resolution	Status
Insufficient staffing resources poses a challenge in implementing activities.	Two full-time IDDS staff in Cambodia continue to multitask and take on many responsibilities to implement project activities.  IDDS has proposed to hire a full-time project officer and a part-time M&E focal point in the FY 2022 work plan.	In progress
Several activities are delayed this implementation period due to competing priorities in CENAT and other stakeholders (DTC activity) and delayed shipments (Truenat).	IDDS has put in place a plan with CENAT and COMMIT to conduct DTC and Truenat-related activities during FY 2022 Q2. Activities for FY 2022 will depend on approval of the FY 2022 work plan.	Addressed

## Lessons Learned

- None.

## FY 2022 Q1 Results

	IDDS sites	National
DR-TB Notifications IDDS sites	2	26
Childhood TB Notifications	158	1646
Percentage of CXR films posted on CXR platform that receive feedback	86% (6 of 7)	



No outputs to report this quarter.

# INDIA

## Quarterly Highlights

- IDDS submitted the second draft of the FY 2022 India work plan to USAID on November 5 and the third draft on December 23.

### Success Story:

#### IDDS Fosters Coordination across Tuberculosis Laboratories in Bhopal, India (See Annex B for full story)

### Diagnostic Highlights:

- IDDS successfully organized the first IRL and TB C&DST laboratory review meeting linked with the National Reference Laboratory Bhopal Memorial Hospital and Research Centre, which involved four states, the CTD, and Bhopal Memorial Hospital and Research Centre. The review strengthened coordination among different laboratory tiers and resolved laboratory-related issues by providing a platform for direct discussion and cross-learning.
- IDDS received approval from the state of Haryana to implement a “One-stop TB/DR-TB diagnostic solution” model in the Hisar district. Consensus from the government is critical to successfully implement the model and ensure ownership of the innovative initiative. In addition, IDDS released a request for proposals to identify a private laboratory to implement the model using a competitive bidding process.
- IDDS completed the first joint field visit with the CTD and the National Institute for Research in Tuberculosis to Truenat sites in the state of Kerala (Chest Disease Hospital Thiruvananthapuram, Palakkad District Tuberculosis Centre Truenat sites, and IRL Thiruvananthapuram). The joint team conducted root cause analysis and collected and validated additional data using a collaboratively developed tool and checklist. Findings from the visits highlighted the need for hands-on training on use of Truenat, a need to assess the workload of laboratory technicians, gaps in SOPs when comparing those developed by the manufacturer with the CTD, the need to troubleshoot issues related to storage specimen collection, and operational and administrative related challenges. Interim guidance on resolving issues was sent by the CTD to all National Reference Laboratories/IRLs following the preliminary findings.

## Problems Encountered and Solutions

Problem	Resolution	Status
Delay in releasing the request for proposals to engage a private laboratory to implement the “One-stop diagnostic solution” model.	The quotes received from leading agencies to post the advertisement in newspapers were more than the available budget. We discussed with two leading newspaper – Times of India (for English) and Dainik Jagran (for Hindi) and got a lower quote from their vendors within the budget.	Addressed

Proposal submitted in discussion with the National Centre for Disease Control (NCDC) on the AMR activity is waiting for approval. The delay of the approval is due to the surge in COVID-19 cases in the country and NCDC's role as the nodal agency in managing the COVID-19 situation in the country.	IDDS is regularly following up and coordinating with NCDC officials on the approval status of the proposal submitted to assess the need for additional information to facilitate approval.	In progress
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## Lessons Learned

- Adopting a hybrid mode for consultative meetings has led to increased participation in the meetings.
- Coordinating and networking with the state TB officer, the district TB officer, the IRLs, and WHO consultants before visiting the Truenat sites greatly helped the team contextualize the effort and was useful for the states when following up.

## FY 2022 Q1 Output Results





# TANZANIA

## Quarterly Highlights

### Diagnostic Highlights:

- In Q1, IDDS completed, edited, and submitted the following FY 2021 deliverables to USAID Washington:
  - Procurement Documents for External Quality Assessment (EQA) Panels for GeneXpert Machines in Tanzania
  - Summary of Quarterly Meeting Minutes from the National Tuberculosis (TB) Laboratory Technical Working Group for FY 2021
  - Report on GeneXpert Connectivity in Tanzania from January–September 2021

## Problems Encountered and Solutions

Problem	Resolution	Status
Delayed implementation of FY 2022 activities	IDDS focused on technical review and submission of remaining FY 2021 deliverables. IDDS continued to engage stakeholders, the mission, and the government to align and coordinate planned activities with government priorities and avoid duplication of efforts.	In progress

## Lessons Learned

- Engagement of stakeholders prior to implementation of planned activities ensures that work is streamlined and aligns with national priorities and avoids duplication of efforts.

## FY 2022 Q1 Output Results

	IDDS sites	National
TB Notifications	373	10,894
DR-TB Notifications IDDS sites	3	79
Childhood TB Notifications	6	408
Bacteriological Diagnosis Coverage	83%	59%
Rapid Diagnostic Testing Coverage	91%	65%
Percent of notified RR-TB/MDR-TB cases with DST results for second-line TB drugs	100%	54%
Percentage of Xpert sites at which data connectivity system transmits results electronically to the national TB surveillance system	100%	66%

No outputs to report this quarter.

# VIETNAM

## Quarterly Highlights

- IDDS received approval for the second draft of the FY 2022 Vietnam TB work plan from USAID on November 29.

### Diagnostic Highlights:

- IDDS met with System One, the NTP, and the mission on piloting the SRS module in Nghe An province. System One offered to pilot the SRS module for three to six months free of charge and shared the draft memorandum of understanding for the pilot.
- IDDS worked with the NTP to plan technical assistance activities for the implementation of Truenat testing.
- IDDS worked on a detailed implementation plan for whole genome sequencing for DR-TB detection.

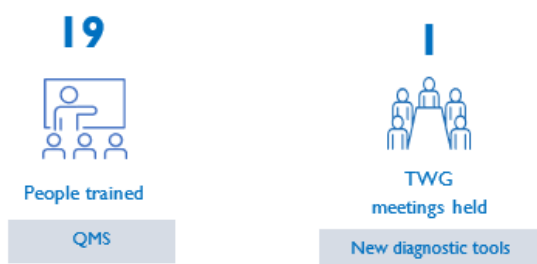
## Problems Encountered and Solutions

Problem	Resolution	Status
Few activities implemented this quarter until the workplan approval was received November 29.	IDDS held planning meetings with NTP and partners to prepare for implementation.	Resolved

## Lessons Learned

- None

## FY 2022 Q1 Results



Preliminary Q1 reporting	IDDS sites
Proportion of specimens that were rejected because of factors related to inadequate or improper transport, packaging, or documentation	1.3% (86 of 6,667) 4 of 7 sites reporting
Number of TB diagnosis sites providing stool-based Xpert testing	13
Number of stool specimens tested with Xpert this quarter	99 (6 of 13 sites reporting)

TB indicators will be updated once national reports become available. At time of submission, data not available.

# ZIMBABWE

## Quarterly Highlights

### Success Story:

**IDDS Supports Installation of a Modular Laboratory to Ensure Continuity of Tuberculosis Diagnostic Testing in Zimbabwe (See Annex B for full story)**



### Diagnostic Highlights:

- IDDS supported installation of the modular laboratory at the Bulawayo NTRL. The modular laboratory will serve as a stopgap measure and ensure the provision of continuous testing services as the main laboratory is undergoing renovation.
- IDDS financially and technically supported the MoHCC and the GX super users to conduct joint GxAlert troubleshooting visits at 29 GX laboratories located in 8 provinces (Manicaland, Midlands, Masvingo, Mashonaland Central, Mashonaland East, Mashonaland West, Matabeleland South, and Matabeleland North) between December 13 and 17. A total of 36 (21 female) participants were trained. The teams also trained laboratory personnel at these sites on the use of the GxAlert system, recording and reporting results, and inventory management.
- IDDS trained 44 laboratory personnel in 2 training workshops held in Kadoma on use of the GxAlert system. The Northern region training was conducted on October 20, during which 26 (12 female) participants were trained. The Southern region training was conducted on October 21, during which 18 (8 female) participants were trained. The trainings focused on use and maintenance of GX machines, inventory management, and analysis of data transmitted through the GxAlert system.

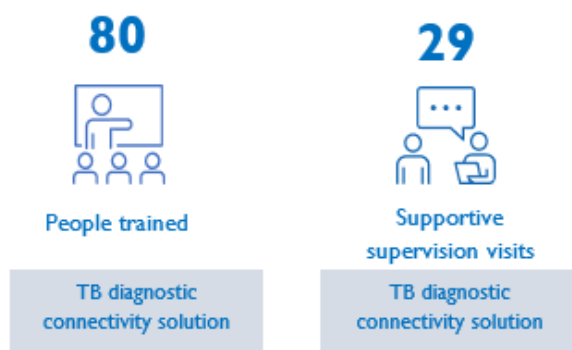
## Problems Encountered and Solutions

Problem	Resolution	Status
The registration application for the IDDS office in Zimbabwe is still in progress.	IDDS has secured a fiscal agent, PriceWaterhouseCooper to support financial transactions while waiting for registration.	In progress

## Lessons Learned

- Building local capacity in the TB Diagnostic Network by training GX super users will support laboratories in the use of the GxAlert platform.
- Engaging another IDDS consortium member partner in Zimbabwe to assist with activity implementation improved the implementation pace and process.

## FY 2022 Q1 Output Results



TB indicators will be updated once national reports become available. At time of submission, data not available.

## Annex A: Activity Implementation Progress

## Annex B: Success/Highlight Stories

## **Annex C: Country Monitoring and Evaluation Tables for GHS and TB**