



USAID
FROM THE AMERICAN PEOPLE

Infectious Disease Detection and Surveillance (IDDS)

Quarterly Report

January 1, 2023–March 31, 2023



IDDS providing training on plague bacteriological culture to INRB staff in Goma. Photo by IDDS.

Submission Date: April 28, 2023

Contract Number: GS00Q14OADU119

Activity Start Date and End Date: May 22, 2018–May 21, 2024

Contracting Officer Representative (COR) Name: Amy S. Piatek, USAID Bureau for Global Health

Submitted by: IDDS Team

Lisa Nichols, Project Director

ICF

1902 Reston Metro Plaza, Reston, VA 20190

Email: Lisa.Nichols@icf.com

*This document was produced for review by the United States Agency for International Development
Washington (USAID/Washington)*

Table of Contents

Abbreviations	iii
Program Overview	1
Quarterly Progress	4
Global Health Security	4
COVID-19.....	12
Integrated Disease Surveillance and Response	13
President’s Malaria Initiative	13
Tuberculosis	13
Middle East and North Africa.....	20
Implementation Status	20
Program Highlights.....	22
Global Health Security FY 2023 Q2 Achievements.....	22
Cameroon	22
Democratic Republic of the Congo	25
Ethiopia.....	28
Guinea	30
India.....	33
Indonesia	34
Kenya	37
Liberia	41
Madagascar	44
Mali	46
Philippines	49
Senegal.....	51
Tanzania	54
Uganda.....	57
Vietnam	59
Integrated Disease Surveillance and Response FY 2023 Q2 Achievements	61
President’s Malaria Initiative FY 2023 Q2 Achievements	63
Tuberculosis FY 2023 Q2 Achievements	64
Core TB.....	64
Bangladesh	67
Burma	71
Cambodia.....	74
Democratic Republic of the Congo	77
India.....	79
Kenya	81
Malawi.....	82

Mozambique.....	84
Nigeria.....	86
Pakistan	87
Tanzania	89
Zimbabwe.....	91
Middle East and North Africa FY 2023 Q2 Achievements	93
Annex A: Activity Implementation Progress	94
Annex B: Success/Highlight Stories.....	95
Annex C: Country Monitoring and Evaluation Tables.....	96

List of Figures

Figure 1: IDDS project map	2
----------------------------------	---

List of Tables

Table 1: Project outputs related to strengthening diagnostic networks for FY 2023 Q2 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, and Mpox funding)	6
Table 2: Project outputs related to strengthening surveillance systems for FY 2023 Q2 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, and Mpox funding)	9
Table 3. Truenat EQA Scores by Country	17
Table 4: Project outputs related to strengthening TB diagnostic networks for FY 2023 Q2 and the countries that contributed to these outputs	19

Abbreviations

4S	Senegalese Syndromic Sentinel Surveillance Network
AMR	antimicrobial resistance
ARP	American Rescue Plan
AST	antimicrobial susceptibility testing
Bacc-TB	bacteriologically confirmed TB
CBS	community-based surveillance
CDC	U.S. Centers for Disease Control and Prevention
CDW	central data warehouse
CNM	National Center for Parasitology, Entomology and Malaria Control
COMMIT	Community Mobilization Initiatives to End Tuberculosis
COVID-19	coronavirus disease 2019
CTD	Central Tuberculosis Division
CXR	chest X-ray
DAH	Department of Animal Health
DHIS2	District Health Information Software, version 2
DNA	diagnostic network assessment
DOH	Department of Health
DR	drug-resistant
DRC	Democratic Republic of the Congo
DST	drug susceptibility testing
DTC	DataToCare
EBS	event-based surveillance
EQA	external quality assessment
EVD	Ebola virus disease
FY	fiscal year
GHS	Global Health Security
IDDS	Infectious Disease Detection and Surveillance
IDSR	Integrated Disease Surveillance and Response
INH	isoniazid
INRB	Institut National de Recherche Biomédicale (National Biomedical Research Institute)
INSP	Institut National de Santé Publique (National Institute of Public Health)

iNTP	introducing New Tools Project
IR	intermediate result
IRL	intermediate reference laboratory
ISO	International Organization for Standardization
JAO	Joint Administrative Order
LAARC	Laboratory Assessment of Antibiotic Resistance Testing Capacity
LIMS	laboratory information management system
LPA	line probe assay
MDR	multidrug-resistant
MENA	Middle East and North Africa
MoH	Ministry of Health
MTB	<i>Mycobacterium tuberculosis</i>
NAP	National Action Plan
NCDC	National Center for Disease Control
NPHL	National Public Health Laboratory
NRL	national reference laboratory
NTEP	National Tuberculosis Elimination Program
NTP	National Tuberculosis Program
NTRL	National Tuberculosis Reference Laboratory
PCR	polymerase chain reaction
PMI	U.S. President’s Malaria Initiative
QMS	quality management system
RIF	rifampicin
RTRL	regional tuberculosis reference laboratory
SIZE	Sistem Informasi Zoonosis dan Emerging Infectious Diseases (Zoonosis and Emerging Infectious Disease Information System)
SLIPTA	Stepwise Laboratory Improvement Process Towards Accreditation
SOP	standard operating procedure
SOS	simple one-step
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
XDR extensively drug-resistant

Program Overview

Summary Overview

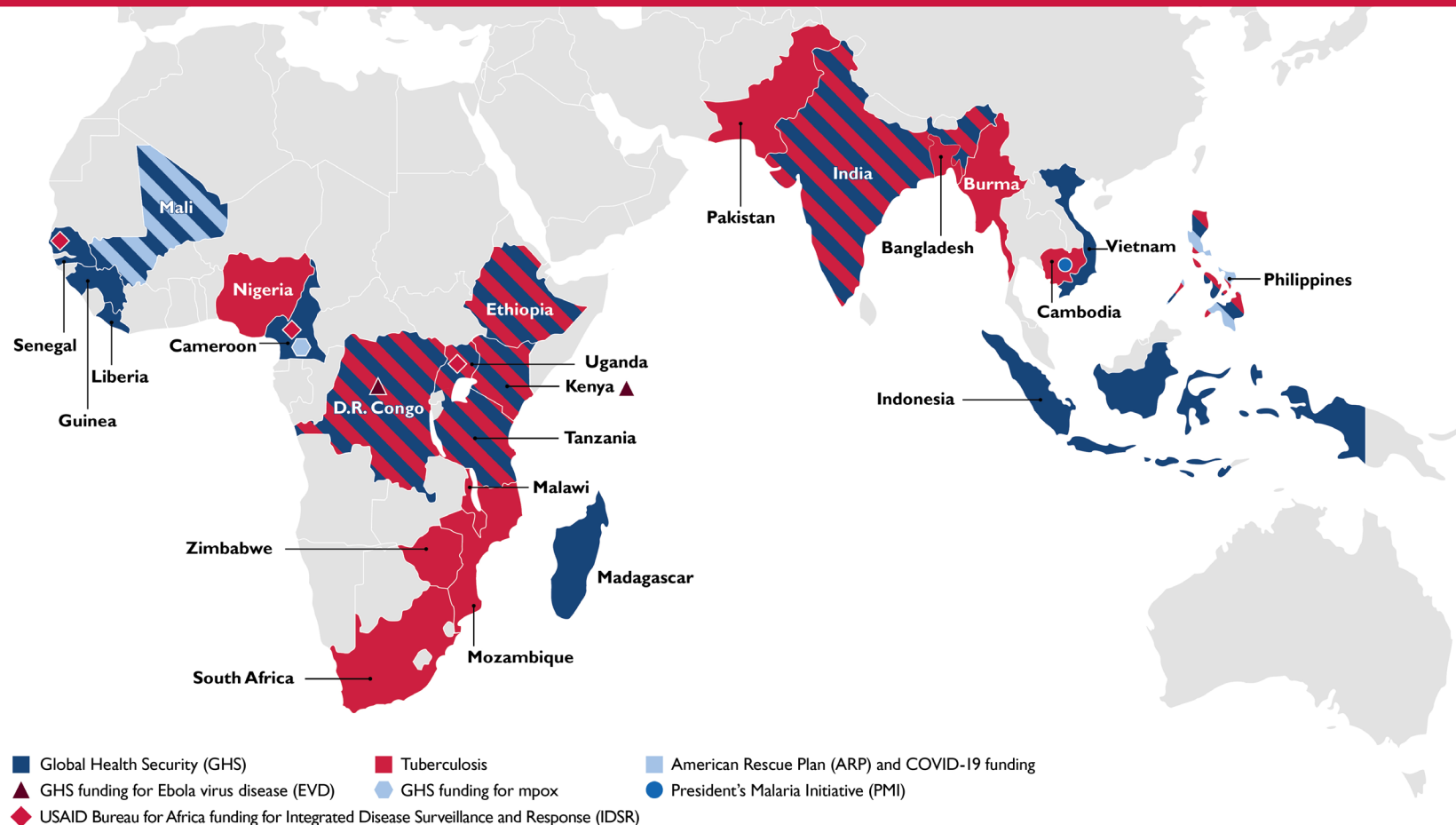
Activity Name:	USAID Infectious Disease Detection and Surveillance
Activity Start Date and End Date:	May 22, 2018–May 21, 2024
Name of Prime Implementing Partner:	ICF Incorporated, LLC
Contract Number:	GS00Q14OADU119
Names of Partners:	PATH, FHI 360, African Society for Laboratory Medicine, Metabiota, Abt Associates, Gryphon Scientific, Association for Public Health Laboratories, Mérieux Foundation
Geographic Coverage:	<i>Countries:</i> Bangladesh, Burma, Cambodia, Cameroon, Democratic Republic of the Congo, Ethiopia, Guinea, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Pakistan, the Philippines, Senegal, South Africa, Tanzania, Uganda, Vietnam, and Zimbabwe <i>Regions:</i> Middle East and North Africa
Reporting Period:	January 1, 2023–March 31, 2023

Program Description

The Infectious Disease Detection and Surveillance (IDDS) project is strengthening the capacity of 24 countries in Africa and Asia to effectively detect and monitor outbreaks of infectious diseases, improve identification and reporting of antimicrobial resistance (AMR), 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 (IR 1)** and **surveillance systems (IR 2)**.

Figure 1: IDDS project map, FY 2023 Q2

USAID INFECTIOUS DISEASE DETECTION AND SURVEILLANCE (IDDS) PROJECT WHERE WE WORK, FISCAL YEAR (FY) 2023 Q2



Quarterly Progress

FY 2023 Q2 Overall Achievements

This report summarizes activities that occurred during quarter 2 (Q2) of fiscal year (FY) 2023 and program year 5: January 1, 2023, through March 31, 2023. This quarter, the project implemented Global Health Security (GHS) activities in 15 countries, including supporting responses to outbreaks of mpox (1 country) and Ebola virus disease (EVD) (2 countries). IDDS also implemented activities in response to the coronavirus disease 2019 (COVID-19) pandemic in 2 countries, U.S. President’s Malaria Initiative (PMI) activities in 1 country, Integrated Disease Surveillance and Response (IDSR) activities in 3 countries, and TB activities in 16 countries. TB activities are implemented with both mission and Core TB funding from the United States Agency for International Development (USAID) in Washington, DC. For more information, please see the Core TB program highlights. Finally, IDDS completed preparations for implementation of activities in the Middle East and North Africa (MENA) region.

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 GHS Strategy, including for the response to the COVID-19 pandemic and country-level EVD, mpox, and Marburg disease outbreaks. Through GHS and American Rescue Plan (ARP) funding, IDDS is strengthening preparedness systems and developing 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 tiers of the health system from point-of-care to national and supranational sites

In FY 2023 Q2, IDDS supported 15 countries to strengthen their diagnostic networks. IDDS also supported response and preparedness for the EVD outbreak in the Democratic Republic of the Congo (DRC) and Kenya, supported the mpox response in Cameroon, and supported the COVID-19 response in Mali and the Philippines. Key progress in these areas is presented in the sections that follow.

Identifying gaps in diagnostic networks and supporting essential components (IR1.1)

In FY 2023 Q2, IDDS continued to support countries to identify and address gaps in diagnostic networks, which included the following: collaborating with local stakeholders to develop and disseminate national-level policies and laboratory regulations; supporting implementation of quality management systems (QMSs); and enhancing systems for specimen referral, transport, and reporting.

IDDS continued to support the **development and dissemination of national-level policies**, including laboratory regulations, national action plans, and standard operating procedures (SOPs) in four

countries. In **Cameroon**, IDDS provided technical support to the government to develop the draft of the new National Action Plan (NAP) on AMR (2023–2027), including by holding a 5-day workshop attended by 43 key stakeholders from government ministries and partner organizations. To provide inputs for a NAP for combating AMR in **India**, IDDS compiled feedback from more than 50 national experts representing multiple sectors in a report that was approved by the National Center for Disease Control (NCDC) AMR focal point. In **Indonesia**, IDDS supported the launch of a new regulation that integrates human and animal disease surveillance, which includes IDDS-developed integrated surveillance guidelines and a roadmap for the disease reporting information system. The launch event was attended by the U.S. and Australian ambassadors, heads of international development partners, and heads of government ministries and institutions who were involved in crafting the new regulation. In **Kenya**, IDDS provided technical assistance to the National Antimicrobial Stewardship Interagency Committee to update 10 bacteriology SOPs, which will allow the project to monitor adherence to all required testing procedures and ensure the quality of laboratory results.

IDDS continued to **support the establishment and expansion of specimen referral systems (SRSs)** to increase access to quality laboratory testing and improve the timely detection and confirmation of priority diseases. In **Guinea**, IDDS collaborated with other implementing partners to expand the SRS to each of the country's 33 health districts, thereby covering the entire health network in the country. Guinea's integrated SRS—which has been shown to reduce the cost of transport per specimen and the time it takes for a specimen to arrive at a reference laboratory—is now accessible throughout the country and across each level of the health system. In **Kenya**, IDDS convened technical working groups (TWGs) in three counties to discuss specimen referral activities, challenges, and opportunities for improvement. A total of 120 specimens were referred to 4 of the 5 IDDS-supported bacteriology testing hubs in 2 of these counties during FY 2023 Q2.

In five countries, IDDS addressed priority gaps in the diagnostic testing pathway by **transporting specimens** to centralized testing facilities. In **Cameroon**, IDDS supported 57 shipments of human health specimens to the national reference laboratories (NRLs). In **DRC**, IDDS provided financial and logistics support to the Provincial Health Division (DPS) in Ituri to transport eight plague specimens collected in Rethy and Aru health zones to the National Biomedical Research Institute (INRB) in Goma for confirmation testing, culture, and quality control. In **Guinea**, IDDS continued to provide monthly Internet and cellular data to Ministry of Health (MoH) focal points at specimen referral hubs and continued to cover specimen transport costs for the public transport union. IDDS directly supports specimen transport in approximately 30 percent of Guinea's health districts. In **Kenya**, IDDS supported the shipment of six packages containing bacterial isolates to the National Microbiology Reference Laboratory, for urgent re-checking of resistance profiles reported by surveillance sites. In **Vietnam**, IDDS procured 2,000 packaging bags for specimen transport activities and continues to provide remote support for specimen transport activities in 3 provinces, by guiding proper packaging and storage, monitoring temperature, and resolving delays.

In five countries, IDDS worked to **enhance QMSs** at diagnostic laboratories. In **Ethiopia**, IDDS held a document review workshop to support two human health AMR sites (Jimma Medical Center and Saint Paul Hospital Millennium Medical College) in addressing discrepancies identified during baseline audits. The revised documents will support the sites in achieving International Organization for Standardization (ISO) 15189 accreditation, which recognizes medical laboratories for meeting minimum quality

standards of service. In **Guinea**, IDDS visited five IDDS-supported regional hospital laboratories, specifically those in Mamou, Kankan, Labe, Kindia, and Labe, to review documents related to QMS, laboratory results, stock management, and equipment maintenance, as well as to identify corrective actions that will foster improvements to quality services. After reviewing the available documents, IDDS developed or updated 26 that were missing or out of date, including 20 SOPs on QMS and testing. In **Kenya**, IDDS monitored key performance indicators across five surveillance sites, including blood culture contamination rates and specimen rejection rates. In **Liberia**, IDDS mentored laboratory technicians at four supported sites (Bong Mines Hospital, C.B. Dunbar Hospital, G.W. Harley Hospital, and Curran Lutheran Hospital) to address discrepancies identified during audits conducted in September 2022 and during routine work. The project also supported six technicians (one female) to attend an internal audit training in Monrovia, as a way to address past performance issues found in Section 6 (Evaluations and Audits) of the Stepwise Laboratory Improvement Process Towards Accreditation (SLIPTA) checklist. IDDS developed SOPs and external quality assessment (EQA) forms for bacteriology, and the project prepared EQA panels for four laboratories that will be used to independently measure the accuracy and reliability of their services. In **Uganda**, IDDS supported a document review to standardize and align policy documents such as quality and biosafety manuals, and SOPs in line with ISO 17025 at three supported sites (Uganda Wildlife Authority’s Queen Elizabeth National Park Research and Diagnostics Laboratory, National Livestock Resources Research Institute, and National Animal Disease Diagnostics and Epidemiology Center).

Table 1: Project outputs related to strengthening diagnostic networks for FY 2023 Q2 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, and mpox funding)

Result area: GHS IR 1.1: Gaps in diagnostic networks identified and essential components supported									
	TOTAL	Testing Procedures	Equipment Maintenance	Commodity Management	QMS	Specimen Referral	Biosafety	AMR dx advocacy	Other Diagnostic Topics
People trained	518	12	0	49	6	51	282	107	11
SOPs, plans, and guidelines developed or revised	156	30	5	1	120	0	0	0	0
TWG* meetings held	32	13	0	3	7	4	1	1	3
Supervisory visits conducted	14	5	0	3	2	0	0	4	0
Pilots conducted	3	0	0	0	0	3	0	0	0
Assessment reports completed	7	5	0	0	0	1	1	0	0
Persons mentored	135	27	0	0	108	0	0	0	0
Specimen transported	1312	0	0	0	0	1,312	0	0	0
Countries [†]									
Cameroon		•			•	•	•		
DRC		•		•		•			
Ethiopia				•	•			•	

Guinea		•	•	•		•			
Indonesia		•							
Kenya		•				•	•	•	•
Liberia		•			•			•	
Madagascar		•		•					
Mali		•							•
Philippines						•			
Senegal									•
Tanzania				•		•		•	
Uganda						•			
Vietnam						•			

*TWG=technical working group

†Countries listed are those that contributed to specific outputs in FY 2023 Q2.

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

In FY 2023 Q2, IDDS continued to support countries to improve capacity to detect priority pathogens and AMR, which included the following: building the capacity of laboratory staff through training and mentorship, as well as equipping laboratories with essential supplies and building capacity for commodity management.

IDDS **strengthened laboratory staff capacity to detect priority pathogens and AMR** in five countries during FY 2023 Q2. In **Cameroon**, IDDS trained 8 laboratory staff (5 female) on priority pathogen identification and antimicrobial susceptibility testing (AST) techniques and mentored 50 laboratory staff (32 female) across 5 AMR sites to operationalize SOPs for AMR detection. In **DRC**, IDDS established new access to testing for *Yersinia pestis* (plague virus), first by training laboratory workers on specimen management. The specimen management training—attended by 15 participants (6 female) from INRB in Goma, in addition to other INRB laboratories and provincial health divisions—covered specimen collection, packaging, and safe transport. After observing delays at INRB in Goma in diagnosing *Yersinia* specimens, IDDS mentored laboratory workers on *Yersinia pestis* culture and identification. This mentoring visit paved the way for the laboratory to successfully complete the first-ever in-country culture of *Yersinia pestis* using materials provided by IDDS—a milestone in DRC. In **Ethiopia**, IDDS completed minor infrastructure improvements at Gondar University Hospital (renovation of the microbiology washing room and media preparation room, aluminum window replacement, and painting) that will enhance the workspace and improve the quality of laboratory services. In **Guinea**, IDDS conducted training for four laboratory technicians (two female) on basic microbiology and serology. In **Kenya**, IDDS visited four AMR surveillance laboratories to monitor adherence to standard practices in specimen processing and AST, mentoring a total of nine laboratory technologists (one female) and developing action plans for improvement. In **Tanzania**, IDDS supported the operationalization of the national AMR surveillance framework leading to increased laboratory capacity to conduct AST and improved AMR surveillance at the four supported sites. A notable achievement was the isolation of *Pseudomonas aeruginosa* (sensitive only to meropenem and levofloxacin) in a 4-year-old leading to effective treatment with the correct antibiotic at Maweni Regional Referral Hospital.

To **promote diagnostic stewardship and AMR learning**, IDDS developed curricula, held workshops to support understanding of AMR as a global health threat, and promoted specimen referral. In **Cameroon**, IDDS supported staff from the National Public Health Laboratory (NPHL), Centre Pasteur Cameroon, and two IDDS-supported surveillance sites to attend the Third Congress of the African Association for Research and Control of Antimicrobial Resistance in Ivory Coast, where they showcased Cameroon's progress on AMR detection and surveillance. In **Ethiopia**, IDDS conducted AMR diagnostic stewardship workshops at Jimma University Hospital and Hawassa University Hospital for 82 staff (25 female). During the workshops, IDDS provided on-site training to raise clinicians' awareness of the microbiology laboratory services available, the types of specimens to submit to the laboratory for analysis, and how to effectively use the AMR testing results to optimize patient treatment plans and health outcomes. In **Kenya**, IDDS participated in a national AMR forum, at which the project presented lessons learned for including bacteriology specimens in SRSs. In addition, IDDS engaged new county government leadership in four counties to highlight project findings on bacteriology testing and discuss opportunities for sustaining project impact. In **Liberia**, IDDS convened a bacteriology stakeholder meeting for 22 participants at the Tellewoyan Memorial Hospital to promote clinicians' use of bacteriology services at the same site. In **Tanzania**, IDDS supported a training on diagnostic stewardship for 25 hospital and laboratory staff (11 female) to implement AMR surveillance and infection prevention and control measures. IDDS also held a meeting (attended by 24 participants [8 female]) to raise awareness of AMR and promote specimen referral from lower-level catchment areas to IDDS-supported laboratories.

Across six countries, IDDS **equipped laboratories with supplies** needed to detect priority pathogens and helped them **manage commodities**. In **DRC**, IDDS enabled INRB in Goma to initiate plague culture testing by delivering 3 boxes of the *Yersinia* agar base and 10 vials of the *Yersinia* supplement. In **Ethiopia**, IDDS co-organized a four-day workshop to improve AMR commodities management across all 15 AMR surveillance sites through proper store management and forecasting. Among the attendees were 10 participants (3 female) from the 5 IDDS-supported human health laboratories. In **Kenya**, an IDDS-contracted vendor repaired two pieces of VITEK 2 Compact equipment at Kitale and Malindi county laboratories that had been non-functional since 2018, which will allow the laboratories to resume uninterrupted bacteriology services. In **Liberia**, IDDS mentored 22 people (4 female) from Tellewoyan Memorial Hospital to forecast general supply needs. In **Madagascar**, IDDS supported MoH to revise a guide for the management of laboratory supplies and medical imaging units of public hospitals, as well as update the National List of Laboratory Supplies. As a result, MoH now understands the country's inventory of reagents, consumables, and medical imaging, as well as the pricing structure and revenue management. In **Tanzania**, IDDS visited three supported sites to build staff capacity to manage stock levels of laboratory supplies and ensure uninterrupted AMR testing.

Strengthening National Surveillance Systems

To help countries prevent, rapidly and effectively detect, and respond to events of significance for public health, IDDS continued to assist countries with strengthening their national surveillance systems. In FY 2023 Q2, IDDS supported countries to address critical gaps in their surveillance systems; strengthen indicator-based surveillance, event-based surveillance (EBS), 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 2023 Q2, IDDS provided support to four countries to **increase their capacity to report complete, timely, and high-quality data** to strengthen the surveillance system. In **Cameroon**, IDDS supported the NPHL to organize 2 online data quality review meetings attended by participants from 14 AMR surveillance sites. The project also trained 14 laboratory technicians, biological engineers, and physicians (11 female) from 8 newly enrolled sentinel surveillance sites on proper collection and reporting of AMR data. Finally, IDDS helped the National Coordination Center prepare an analysis plan for the 2022 Antimicrobial Surveillance Annual Report and worked with surveillance sites to clean the data for analysis. In **Kenya**, IDDS re-assessed five supported laboratories using the U.S. Centers for Disease Control and Prevention (CDC) Laboratory Assessment of Antibiotic Resistance Testing Capacity (LAARC) tool, and significant improvements were noted across all five sites since their baseline LAARC assessments. In **Liberia**, an IDDS-supported bacteriology trainer mentored technicians at Tellewoyan and G.W. Harley Hospitals on WHONET and trained a focal person from each site on WHONET data entry, data sharing, and utilization of bacteriology documents. In **Tanzania**, IDDS visited three laboratories to build staff capacity for reporting AMR data, ensuring continuous quality improvement of AMR surveillance activities, and collected data from four supported laboratories using the LAARC tool. In addition, IDDS mentored nine microbiology staff (four female) on microbiological testing (including AST); data collection, entry, analysis, and reporting; and quality control and EQA.

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

Multisectoral integration is key to the One Health surveillance approach to successfully address the significant threats posed by infectious diseases with epidemic potential to humans and animals. IDDS continued to work with partners in **Indonesia** to pilot an integrated surveillance system that can track disease data across human, animal, and environmental health sectors. In collaboration with the Directorate of Communicable Disease Control and Prevention, IDDS conducted a workshop to analyze and interpret integrated surveillance data on *Leptospirosis* from the pilot project in Demak district. A total of 48 people (22 female) participated. In **Mali**, IDDS visited 80 health centers across 8 health districts to strengthen IDSR and improve the quality of data reported into DHIS2, by checking the accuracy and completeness of the data and coaching staff to develop corrective action plans. In **Uganda**, IDDS provided technical support to a TWG that is working to operationalize coordinated surveillance of priority zoonotic diseases. The TWG meetings are enhancing information sharing, systematic coordination, and advocacy for routine government support in Uganda.

Table 2: Project outputs related to strengthening surveillance systems for FY 2023 Q2 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, and mpox funding)

Result area: GHS IR 2.1: Gaps in core functions of surveillance systems identified and essential activities supported						
	TOTAL	Interoperability	Electronic Reporting	Data Quality	Data Analysis and Use	Other Surveillance Topic
People trained	255	0	90	56	0	109
SOPs, plans, and guidelines developed or revised	0	0	0	0	0	0

TWG* meetings held	16	3	4	3	2	4
Supervisory visits conducted	103	0	87	0	16	0
Pilots conducted	5	0	2	2	1	0
Assessment reports completed	1	0	1	0	0	0
Persons mentored	81	0	65	9	7	0
Countries [†]						
Cameroon		•		•		•
DRC						
Ethiopia					•	
Guinea			•	•		
Indonesia		•	•		•	
Kenya						
Liberia						
Madagascar						
Mali			•			
Philippines						
Senegal						
Tanzania				•		
Uganda					•	•
Vietnam			•			

*TWG=technical working group

[†]Countries listed are those that contributed to specific outputs in FY 2023 Q2.

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

IDDS supports countries' efforts to **identify and track infectious diseases and public health incidents**, including by supporting their efforts to implement EBS and CBS. In **India**, IDDS developed a laboratory assessment tool—which will be piloted in the state of Punjab—to better understand the capacity of district-level laboratories to monitor AMR (including infrastructure, human resources, and testing capabilities). In **Mali**, IDDS and the General Directorate of Health and Public Hygiene conducted 7 supportive supervision and data review visits for CBS in the Sikasso health district, during which 85 community health workers (74 female) and 34 community health center directors (3 female) received supervision and coaching. In **Senegal**, IDDS organized three meetings to review the national EBS protocol, to develop and review EBS guidelines and SOPs, and to validate these documents for use by the MoH Directorate of Prevention. IDDS also conducted two three-day site visits to Yeumbeul and Pikine health districts as part of the project's ongoing effort to scale the Senegalese Syndromic Sentinel Surveillance (4S) network. The purpose of the site visits included checking the inclusion criteria; training staff on sentinel surveillance activities (data collection, specimen collection, storage, and transport); procuring required materials for surveillance activities at the site level; and defining the data flow. In **Uganda**, IDDS supported the National Task Force in convening meetings to coordinate responses to various ongoing local outbreaks (yellow fever, Rift Valley, and bacterial meningitis).

IDDS worked in four countries to **improve data management and analysis** to strengthen surveillance systems for priority pathogens and AMR. In **Ethiopia**, IDDS mentored 14 staff members (6 female) at 3 of the 5 human health laboratories supported by the project: Jimma Medical Center, Gondar University Hospital, and Hawassa University Hospital. All three mentorship visits covered WHONET data management, and the one at Jimma Medical Center also included a full competency assessment to address non-conformities identified during a baseline audit conducted in FY 2023 Q1. IDDS also conducted a two-day AMR surveillance review meeting attended by government and hospital staff, regional health bureaus, and international partners. The project presented annual AMR surveillance findings, disseminated the 2022–2023 AMR surveillance operational plan, and identified areas for improvement. In **Guinea**, IDDS provided technical assistance to the director of the National Institute of Public Health (INSP) and the data management team to develop procedures and guidance documents to establish a data management unit at INSP. IDDS also mentored 10 staff (4 female) from the regional hospital laboratories of Mamou, Kankan, and Labe on WHONET, DHIS2, and AMR data management, and conducted supportive supervision visits to these 3 sites in addition to 2 sites in Kindia and Faranah to review internal quality control data with laboratory staff. IDDS provided continuous support (Internet connectivity) to AMR surveillance sites to ensure that data were collected and submitted to the central level of INSP on a weekly basis. In **Kenya**, IDDS reconfigured the laboratory information management systems (LIMSs) at Nyeri and Kitale referral hospital laboratories, which will allow the laboratories to transmit standardized data to the central data warehouse (CDW), where they can be used for monitoring and decision-making. IDDS also participated in a virtual meeting (organized by the National Antimicrobial Stewardship Interagency Committee and the Association of Public Health Laboratories) to discuss standardization of site variables and interoperability between the CDW and WHONET. In **Vietnam**, IDDS organized 5 meetings to review the use of the Vietnam Animal Health Information System (VAHIS) and to mentor 55 provincial and district staff (25 female) across 5 provinces. Through these meetings, animal health staff, especially staff at the district level, identified previous errors that occurred during animal disease data collection and entry and learned how to correct them. IDDS also received feedback from VAHIS mobile application users that will help the project improve the application, and developed and disseminated a user guide for the mobile application that included a short interactive video.

Responding to EVD

In **DRC**, IDDS facilitated the transport of 7 specimens through commercial flights from INRB sentinel sites (i.e., Beni and Butembo) to the INRB laboratory in Goma for EVD testing, confirmation, and quality control. IDDS followed up with the INRB laboratory in Goma after specimen receipt to ensure that the laboratory checked the package quality for each specimen. In addition, IDDS engaged the United Nations Humanitarian Air Service to transport 6,966 specimens from previous EVD outbreaks (i.e., the 12th EVD outbreak on February 7–May 3, 2021, and the 13th outbreak on October 8–December 16, 2021) from the INRB sentinel site in Beni to the INRB laboratory in Goma, which is able to ensure that the specimens are stored at the appropriate temperature and with the required biosafety/biosecurity procedures. Finally,, IDDS began the procurement process for 900 Ebola tests (GeneXpert® [Xpert] cartridges) that are expected to be delivered in FY 2023 Q3 to build the national stockpile in support of preparedness for response to a future EVD outbreak.

IDDS provided technical assistance to the Government of **Kenya** through the laboratory subcommittee of the national Ebola preparedness incident management team to train 282 health care workers (137 female) from 10 high-risk counties on suspected EVD specimen collection, packaging, and transport. At the training, IDDS distributed SOPs and job aids on specimen collection, packaging, and transport that were developed by the project.

Responding to mpox

IDDS continued its support to the Government of **Cameroon** to disseminate its strategic plan for the prevention and control of mpox—a document that will guide immunization and outbreak management and reinforce the surveillance system through a multisectoral One Health approach. After finalizing the document in FY 2023 Q1, IDDS in Q2 planned and supported a one-day meeting led by the National One Health Platform, at which the strategic plan was presented and 800 copies were distributed to various government ministries, regional delegations of public health and livestock organizations, and technical implementing partners. IDDS also translated operational guidelines for mpox surveillance that will provide SOPs and tools to guide epidemiological surveillance of the disease at all levels of the health pyramid.

In January 2023, IDDS supported the Cameroonian Society of Microbiology to organize a scientific meeting that focused on mpox transmission hazards to humans, clinical and biological diagnosis, epidemiological surveillance, case management, and the national strategy for mpox control.

IDDS provided technical and financial support to train 42 government and military health professionals (17 female) on the third edition of the IDSR technical guidelines in the context of mpox outbreak, equipping them to conduct effective mpox surveillance activities. Finally, IDDS designated three regional laboratories to conduct mpox diagnostic activities and evaluated these sites to identify gaps in human and technical resources needed to perform mpox diagnosis.

COVID-19

As the number of COVID-19 cases recedes globally, IDDS continues support for pandemic response in two countries (**Mali** and the **Philippines**), funded by the ARP. In FY 2023 Q2, IDDS support to these countries included one virtual training, support for specimen transport, and delivery of essential laboratory supplies to support COVID-19 diagnostics.

IDDS provided **training** to assist the **Philippines'** laboratory network in responding to the COVID-19 pandemic. IDDS, in collaboration with the Research Institute of Tropical Medicine, conducted a webinar on biosafety and biosecurity on February 25. A total of 67 medical technologists and disease surveillance officers (53 female) from 5 provinces (Rizal, Cavite, Palawan, Isabela, and Bulacan) attended the webinar.

IDDS also continued its **support for specimen transport** in the **Philippines**. In FY 2023 Q2, IDDS transported 848 specimens for reverse transcription polymerase chain reaction (PCR) tests from 11 collection sites to testing sites in 4 IDDS-supported provinces (Cavite, Isabela, Laguna, and Palawan).

Finally, IDDS continued to **support procurement needs for essential COVID-19 supplies** in **Mali** and the **Philippines**. In **Mali**, IDDS delivered 24,352 auxiliary diagnostic commodities and 128,995 general laboratory commodities that had been purchased in previous quarters, including cryotubes, pipettes and tips, mini-centrifuges, buffers, and primers, among others. In the **Philippines**, IDDS handed over 2,500 viral transport media that were previously purchased and ordered 60,000 rapid antigen test kits that will be delivered in FY 2023 Q3. Some other items were delivered to the COVID-19 laboratories in the 6 project-supported sites in February, including 15 units of biological spill kits, 1 refrigerated microcentrifuge, and 5 single-channel and multi-channel mechanical pipettors.

Integrated Disease Surveillance and Response

IDDS implements IDSR activities in Cameroon, Senegal, and Uganda, funded by the USAID Bureau for Africa. This quarter in **Cameroon**, IDDS provided technical and financial support to the Regional Center for Epidemic Prevention and Control for the Southwest Region, to conduct a regional IDSR mentorship/coaching pilot program. IDDS provided monthly phone credits to surveillance focal points for regular follow-up with health care facilities on weekly IDSR data reporting. IDDS staff and the surveillance focal points participated in weekly meetings to review IDSR data; 10 meetings were held this quarter. In **Uganda**, IDDS supported MoH to train 109 frontline health workers and veterinary staff (49 female) in Buikwe district on the third edition of IDSR technical guidelines. IDDS, with MoH and Buikwe district health office staff, also visited 16 health facilities in the district to administer an IDSR data quality checklist and provide feedback to health facility staff on identified gaps.

President's Malaria Initiative

In **Cambodia**, IDDS re-introduced a revised project plan to the National Center for Parasitology, Entomology and Malaria Control (CNM). The proposed work plan includes a landscape assessment of the molecular laboratory network at the provincial level, as well as technical assistance for improving molecular testing for malaria, by supporting the capacity building of CNM laboratory staff to enhance molecular diagnostic capacity for malaria species identification. CNM agreed and confirmed that they would provide PCR equipment and requested that IDDS procure the reagents needed for PCR testing.

Tuberculosis

IDDS is implementing programs globally to strengthen TB diagnostic networks with both Core and field funding from USAID. Through its work across 16 countries in FY 2023 Q2, IDDS enhanced capacities of NRLs and regional reference laboratories and built capacity to detect *Mycobacterium tuberculosis* (MTB), drug-resistant (DR) TB, multidrug-resistant (MDR) TB, and extensively drug-resistant (XDR) TB by introducing and expanding the use of rapid molecular diagnostic tools.

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) and laboratory spatial analyses; filled gaps in the TB SRS; expanded use of GeneXpert, Truenat®, and TB diagnostic connectivity solutions; improved quality, strengthened leadership and management, and facilitated cross-sectoral collaboration across TB diagnostic networks; continued to engage the private

sector; and contributed to the evidence base through operational research studies and thought leadership.

IDDS continued **to support and implement TB DNAs** to understand and identify gaps in existing TB diagnostic networks in **DRC, Malawi, Pakistan, and South Africa**. In **DRC**, IDDS convened 13 assessment teams to complete verification visits to 111 health facilities across 13 provinces and compiled the draft DNA assessment report based on the findings from the site visits. In **Malawi**, IDDS completed the DNA site verification visits to 133 sites in 21 of Malawi's 28 districts. Following the visits, the seven assessment teams reconvened in Lilongwe to compile results, which were presented in a draft DNA assessment report. The findings from the TB DNA will provide the National TB and Leprosy Elimination Program with recommendations for evidence-based interventions to improve access to—and capacity and quality of—the TB diagnostic network to increase detection of TB and MDR-TB. In **Pakistan and South Africa**, IDDS supported each country's National TB Program (NTP) to complete a self-assessment workshop using the TB-NET tool and supported site verification visits. In **Pakistan**, 9 teams visited 176 organizations and health facilities, and in **South Africa**, assessment teams visited 44 organizations and health facilities across 6 regions. In both countries, IDDS helped draft a TB DNA report based on the findings.

In **Burma**, IDDS supported the World Health Organization (WHO) and NTP to develop a spatial analysis report about the functionality of TB diagnosis and treatment facilities. Building on that work, IDDS is now supporting NTP and the United Nations Office for Project Services to assess facilities that offer chest X-rays (CXRs) and GeneXpert testing to inform implementation of the new diagnostic algorithm, called the “Double X strategy.” In **Malawi**, IDDS carried out a laboratory network spatial analysis aimed at evaluating the current rapid molecular diagnostic instrument capacity in the public and private sectors, determine gaps, and propose a strategy to strengthen access and coverage through instrument placement, including placement of new GeneXpert 10-color and Truenat instruments for diagnosing DR-TB. IDDS also performed another limited spatial analysis to design a hub-and-spoke system for specimen referral at three newly equipped Xpert® MTB/XDR testing facilities in Chikwawa, Mangochi, and Lilongwe districts.

In two countries, IDDS **improved TB diagnostic connectivity solutions**. In **Cambodia**, IDDS coordinated with Savics and MekongNet to establish a new capability for SMS notification of test results to providers and patients through the country's diagnostic connectivity software, called DataToCare (DTC). In **Zimbabwe**, IDDS helped install global SIM cards to connect 20 Truenat instruments to the SystemOne Aspect platform; to date, one instrument has been connected, allowing real-time transmission of data from the instrument to the clinicians ordering the Truenat tests, thereby improving the quality of patient care by speeding the return of test results.

IDDS implemented activities to **strengthen leadership and management of the TB diagnostic network** in four countries in FY 2023 Q2. In **Bangladesh**, IDDS developed, validated, and finalized a monitoring and supervision checklist for use by supervisors from NTP, the National TB Reference Laboratory (NTRL), and regional TB reference laboratories (RTRLs) to monitor lower-level laboratories that are now using Truenat technology to detect TB. IDDS supported NTP, NTRL, and RTRL supervisors to use the checklist during visits to 38 Truenat sites, developing the supervisors' capacity to monitor the diagnostic network and identify areas for improvement. In **India**, IDDS has been supporting the Central TB Division (CTD) to improve management of the laboratory network through a revised supervision, monitoring, and

evaluation framework. This quarter, the project submitted a comprehensive guidance document for conducting EQA to CTD that includes supervisory checklists (previously developed) and new guidance for supervisory staff on how to conduct EQA during the supervisory visits at different tiers of the laboratory network. IDDS also prepared a report on the ranking of NRLs and visited three intermediate reference laboratories (IRLs) to validate information and scores received from the laboratories' self-assessments and visited two IRLs to help them implement the revised supervisory checklists. To assess the impact of IDDS support, the project jointly conducted (with the USAID mission) two other visits to NRL Bhopal Memorial Hospital and Research Center and IRL Bhopal.

To **enhance quality** of laboratory services, in **Bangladesh**, IDDS worked with NTP to adapt an SOP for using Xpert Ultra testing to detect TB and DR-TB, which will increase access to drug susceptibility testing (DST) and help patients access appropriate TB treatments. In **Pakistan**, IDDS completed the final QMS training for 50 laboratory staff (12 female) at 4 sites and provided remote support to the laboratories to conduct internal audits and report their findings. The training delivered background knowledge that will enhance staff capacity on QMS, paving the way for ISO 15189 accreditation. IDDS also delivered proficiency testing panels to NTP that will enable independent assessment of laboratory test results.

IDDS continued support to CTD to engage extensively with the **private sector** in **India** through the “one-stop TB diagnostic model” for improving the TB/DR-TB diagnostic care cascade. IDDS regularly communicated with the engaged private-sector laboratory, Thyrocare, to address challenges in specimen collection and transport, payment initiation, and data entry and reporting—and monitored implementation through one in-person visit and two remote meetings. Mid-course findings from the evaluation of the model were presented to stakeholders in March 2023. IDDS also began planning to transition management of the model to the National TB Elimination Program (NTEP) by building consensus for equipping and refurbishing a laboratory in Hisar district to establish a central TB nucleic acid amplification testing laboratory in the district. Finally, IDDS submitted a guidance document for technical assessors to use as a prerequisite in private-sector laboratories seeking accreditation for their microbiology services.

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 supporting NTPs to introduce and expand the use of new TB diagnostic tools and methods, including Truenat technology, bolster the diagnostic capacity of laboratories and laboratory staff, and ensure quality services.

In three countries, IDDS supported or pursued **upgrades to data management systems** that will allow laboratories to provide uninterrupted services, improve laboratory safety, and streamline data management. In **Burma**, IDDS developed a proposed workflow for the electronic LIMS that will help streamline the diagnosis and treatment of TB patients and centralize records at NTRL. In **DRC**, IDDS provided high-speed Internet to NTRL to support the logistics management information system, which facilitates data management to inform purchasing and commodities management. In **India**, IDDS is developing a forecasting tool that will facilitate the systematic calculation of the required kits/consumables, quantities, and approximate costs of the products for NRLs, IRLs, and culture and DST laboratories. A first draft of the tool for 9 out of 10 diagnostic methods has been completed.

IDDS continued to **strengthen laboratory capacity to detect pre-XDR TB** by equipping them with GeneXpert 10-color instruments and Xpert MTB/XDR cartridges. In **Cambodia**, IDDS and the Center for TB and Leprosy Control installed three GeneXpert 10-color instruments at three provincial referral hospitals (Battambang, Siem Reap, and Svay Rieng). In **Malawi**, IDDS installed three GeneXpert 10-color instruments at Bwaila, Chikwawa, and Mangochi district hospitals. The new instruments—equipped with technology that can be connected to Aspect for real-time results reporting—will improve access to TB diagnostic testing and allow monitoring of test results.

In **Bangladesh** and **Cambodia**, IDDS **delivered essential training on new diagnostic TB tools and approaches**. In **Bangladesh**, IDDS trained seven microbiologists and medical technologists (all male) on preventive maintenance of TB equipment at the Khulna Regional TB Reference Laboratory, resulting in an observable improvement of routine maintenance practice. IDDS also trained nine laboratory staff (three female) to use Xpert Ultra cartridges to process extra-pulmonary specimens and stool specimens for TB testing, with assessment scores improving from 78 percent before the training to 96 percent. In **Cambodia**, IDDS trained 14 laboratory staff (5 female) from 3 laboratories newly equipped with GeneXpert 10-color instruments on the use of Xpert MTB/XDR assays. This will expand access to detection of DR-TB, allowing clinicians to initiate appropriate treatment more quickly for their patients. In **Malawi**, IDDS trained 32 laboratory staff (13 female) on the use of the Xpert MTB/XDR assay, which expands access to DST.

To institutionalize **capacity to detect DR-TB**, IDDS developed a super-user training package for Xpert MTB/XDR assay that includes a supervisory visit checklist and nine training modules. The training package will be used to train a cadre of super-users to provide localized technical and troubleshooting support on the use of the new technology post-IDDS. In **Mozambique**, the IDDS TB specialist joined focal points from the Clinical Laboratory Division, the TB Reference Laboratory, and Provincial Health Services to visit two laboratories (Carmelo in Chokwe and Manhiça Health Research Center) and assess their capacity to perform TB culture, DST, and line probe assay (LPA). The team assessed available human resources (in terms of number and status of training), equipment, and infrastructure. Findings will support the development of a roadmap to strengthen second-line DST capacity at these laboratories. To support the introduction of the Xpert MTB/XDR testing, IDDS collaborated with Cepheid to procure, free of charge, XDR validation panels produced by SmartSpot Quality. These panels were delivered to **Cambodia, Malawi, and Zimbabwe** to support a centralized validation.

IDDS **developed Truenat training materials or directly provided Truenat training** in five countries this quarter. In **DRC**, IDDS held a super-user workshop for 20 participants (4 female) to discuss challenges with Truenat implementation and common errors identified during EQA participation. IDDS also visited five Truenat sites to understand the challenges affecting implementation. Based on the findings from these activities, IDDS developed a refresher training curriculum and assessment for Truenat end users, with the aim of improving performance. In **Kenya**, IDDS conducted a review workshop for 65 participants, including 44 Truenat super-users (12 female) to provide on-site training and technical support for QMSs, introduce SOPs and job aids, and develop action plans for improvement. In **Nigeria**, IDDS trained 38 super-users (10 female) to detect MTB and resistance to rifampicin (RIF) using Truenat. In **Tanzania**, IDDS trained 50 Truenat end users (15 female). In **Zimbabwe**, IDDS provided financial and technical assistance to Truenat super-users who provided supportive supervision and technical

assistance to end users at 20 laboratories across the country. The end users were trained in equipment maintenance, internal and external quality control, biosafety, recording, and reporting.

Further, IDDS provided **operational planning for Truenat** implementation in two countries in FY 2023 Q2. In **Bangladesh**, IDDS supported 55 sessions conducted by the Bangladesh Rural Advancement Committee and the Damien Foundation that oriented 877 health providers (379 female) to Truenat technology, TB screening, specimen collection, and referral of presumptive TB cases for diagnosis. In **Tanzania**, IDDS provided logistical and financial assistance to the National TB and Leprosy Program and the Central TB Reference Laboratory to assess readiness for Truenat installation in 27 facilities across Tanzania. The results informed the selection and confirmation of the sites in which Truenat instruments will be installed. IDDS is also supporting the configuration of 30 Truenat instruments to enable connectivity to Aspect for automatic results reporting upon installation.

To **support quality control for Truenat testing** and measure laboratory performance, IDDS has been supporting EQA in introducing New Tools Project (iNTP) countries that are receiving Truenat technology. IDDS partnered with SmartSpot Quality, an accredited manufacturer of validated EQA panels, to provide each Truenat site with three cycles of EQA. During FY 2023 Q2, six countries received their reported scores (Table 3).

Table 3. Truenat EQA Scores by Country

Country	Number of Truenat Sites Participating in EQA	Number and Percentage of Truenat Sites Receiving EQA Scores, by Type of Score				
		Pass	Acceptable	Concern	Unacceptable	No submission of EQA results
Bangladesh	38	13 (34%)	8 (21%)	10 (26%)	7 (18%)	--
Cambodia	15	11 (73%)	2 (13%)	2 (13%)	--	--
DRC	38	13 (34%)	4 (11%)	7 (18%)	9 (24%)	5 (13%)
Kenya	38	22 (58%)	--	11 (29%)	4 (11%)	1 (3%)
Uganda	38	10 (26%)	2 (5%)	7 (18%)	14 (37%)	5 (13%)
Zimbabwe	20	9 (45%)	1 (5%)	3 (15%)	2 (10%)	5 (25%)

IDDS shared information on EQA performance in iNTP countries at a webinar sponsored by the Stop TB Partnership in February 2023. IDDS also conducted supportive supervision/joint monitoring visits to 38 Truenat sites in **Bangladesh** and 20 Truenat sites in **Zimbabwe**. During the visits in Zimbabwe, the supervisory teams assessed Truenat procedures, record keeping, and stock management practices, and provided mentoring to improve practices.

To **increase TB case detection among children**, IDDS continued programmatic expansion of the simple one-step (SOS) stool processing method to test stool specimens for pediatric TB diagnosis in

collaboration with NTPs and in-country partners. In **DRC**, IDDS conducted a monitoring visit to review results from the pilot project that implemented stool testing in the country and hosted a webinar to present preliminary results to 30 participants. In **Malawi**, IDDS, NTP, and the TB local organization network partner held a review meeting with the eight facilities that are piloting stool-based TB testing. Attended by 68 participants (15 female), the meeting helped to resolve challenges that facilities faced and increased the number of children enrolled in the pilot study. IDDS sponsored two officials from **Cambodia's** NTP and three master trainers from **Mozambique** to participate in a regional SOS training in Uganda, during which IDDS consultants were also involved in observing the trainers and providing feedback and technical support. In **Mozambique**, IDDS supported the development and finalization of the national guideline for the detection of MTB complex and RIF resistance in stool using the SOS method. In **Zimbabwe**, IDDS supported an SOS training in Harare province that reached 129 health care workers (88 female), equipping them to utilize the new method for increasing detection of TB among children. A regional training-of-trainers workshop also took place on this topic, during which an IDDS facilitator participated in training clinicians and laboratorians on the pathophysiology and epidemiology of childhood TB, use of the SOS stool testing method for childhood pulmonary TB diagnosis, quality assurance, and data recording and reporting.

As of March 2023, IDDS has six **operational research studies** at different implementation stages in five countries (text box). In **DRC**, IDDS completed data collection, report writing, and validation for the bacteriologically confirmed TB (Bacc-TB) study and drafted one manuscript from this research. In **India**, IDDS submitted to CTD a study report on the reasons for Truenat indeterminate/invalid rates, and the project received a notice of acceptance from the *International Journal of Tuberculosis and Lung Disease* for a manuscript on the feasibility of using Trueprep®-extracted deoxyribonucleic acid. Finally, the IDDS consortium submitted 13 abstracts and 2 symposium proposals to the 53rd Union World Conference on Lung Health.

Highlighted **Operational Research Studies**: Countries and Topics

- **DRC**: Bacc-TB
- **India**: Truenat indeterminate/invalid results, Trueprep deoxyribonucleic acid extraction studies
- **Malawi**: stool-based Xpert MTB/RIF as an alternate diagnostic test for pulmonary TB among children
- **Tanzania**: Bacc-TB
- **Zimbabwe**: Ultra trace calls results, clinically diagnosed TB, Bacc-TB, and smear microscopy hub strategy

Table 4: Project outputs related to strengthening TB diagnostic networks for FY 2023 Q2 and the countries that contributed to these outputs

Result area: TB IR 1.1: Gaps in diagnostic networks identified and essential components supported								
	TOTAL	New Diagnostic Tools	Pediatric TB Testing	Other Testing Skills and Procedures	Equipment Maintenance	QMS	Diagnostic Connectivity Solutions	Private Sector Engagement
People trained	279	134	138		7			
SOPs, plans, and guidelines developed or revised	8	1	1	2		3		1
TWG* meetings held	3			1		1	1	
Supervisory visits conducted	74	65		4		3		2
Pilots conducted	1		1					
Assessment reports completed	1					1		
People mentored	36			24		12		
Countries†								
Bangladesh		●	●	●	●	●		
Burma				●		●		
Cambodia		●					●	
Core TB‡		●						
DRC		●				●		
India						●		●
Malawi		●	●	●				
Mozambique			●	●				
Nigeria		●						
Pakistan						●		
Tanzania		●						
Zimbabwe		●	●	●				

*TWG=technical working group

† Countries listed are those that contributed to specific outputs during FY 2023 Q2.

‡Core TB =Activities implemented with funding from USAID in Washington, DC benefitting more than one country

●=Activities implemented with funding from USAID in Washington, DC.

●=Activities implemented with field funding.

Middle East and North Africa

With funds from the USAID Bureau for the Middle East, IDDS has developed an assessment tool, based on the TB DNA, that will be piloted in MENA countries to assess the diagnostic network capacity and preparedness for emerging and reemerging disease threats. During FY 2023 Q2, IDDS integrated the DNA verification checklists into SurveyCTO to efficiently collect and analyze facility-based assessment data during upcoming verification visits. For the pilot DNA assessment in **Tunisia**, IDDS shared the scope of work, timeline, and related documents with the Tunisia MoH and received approvals on March 22, to plan for implementation in FY 2023 Q3. IDDS and the USAID Bureau for the Middle East also deliberated on other countries where a second pilot could be conducted. Lessons learned and best practices from the pilots will be incorporated into the final MENA DNA tool.

Implementation Status

Work plans and deliverables submitted in FY 2023 Q2 are summarized in the tables that follow.

Work Plans Submitted and Approved in FY 2023 Q2

Project Area	Submitted/Resubmitted in Q2	Received USAID Approval in Q2
GHS	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Cambodia PMI: 2/23/2023 DRC: 1/9/2023 Indonesia: 2/24/2023 Madagascar: 1/9/2023 Uganda: 1/9/2023
TB	<ul style="list-style-type: none"> Burma: 2/5/2023 Cambodia: 2/12/2023 Core TB: 3/8/2023 Zimbabwe: 1/20/2023, 3/24/2023 	<ul style="list-style-type: none"> Cambodia: 3/28/2023 (contingent) Zimbabwe: 3/17/2023 (contingent)
Cross-Cutting	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None

Deliverables Submitted in FY 2023 Q2

Project Area	Number of Key Deliverables Submitted to USAID in Q2
GHS	7
C-19F/ARP	0
EVD	0
IDSR	0
TB	4
Total	11

Program Highlights

Global Health Security FY 2023 Q2 Achievements

CAMEROON

Quarterly Highlights

Success Story:

- IDDS Supports the Development of Mpox Strategic Documents in Cameroon

Diagnostic Highlights:

- To support the early detection of priority pathogens of national importance, including Marburg virus disease, IDDS supported 57 shipments of specimens to the national reference laboratories from 10 regions of the country.

Surveillance Highlights:

- To raise awareness of AMR as a global health threat and provide an opportunity for knowledge exchange, IDDS financially supported the participation of five representatives from the Cameroon AMR Surveillance Network in the Third Congress of the African Association for Research and Control of Antimicrobial Resistance, on February 8–10, 2023. Representatives presented Cameroon's advancements in AMR detection and surveillance, made possible through IDDS support.
- To improve the capacity and reliability of the AMR surveillance system, IDDS trained 14 staff (11 female) from 8 newly enrolled sentinel surveillance sites on AMR detection and surveillance. Now that these sites are equipped with the staff capacity needed for AMR detection, the surveillance data will be more representative and therefore more useful for decision-making at the national level. IDDS also supported NPHL to organize 2 online data quality review meetings, which were attended by participants from 14 AMR surveillance sites.

Mpox Highlights:

- To equip the Government of Cameroon to conduct effective disease surveillance, IDDS trained 40 government staff in the Northwest region of Cameroon, as well as 2 surveillance staff from the Military Health Department in the Western region, on the third edition of the IDSR technical guidelines.

Problems Encountered and Solutions

Problem	Resolution	Status
Disease outbreaks and other public health emergencies have	IDDS will maintain frequent communication with government	In progress

Problem	Resolution	Status
delayed implementation progress because MoH stakeholders are unable to prioritize IDDS engagements while addressing the various public health emergencies.	stakeholders and negotiate new dates for engagements where appropriate.	

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

64



People trained

Testing (8)
Data quality (14)
Data quality–mpox (42)

4



TWG
meetings held

Data quality (2)
Interoperability (1)
Other surveillance (1)

50



People mentored

QMS and testing

67



Specimens transported

Testing–GHS (57)
Testing–mpox (10)

1

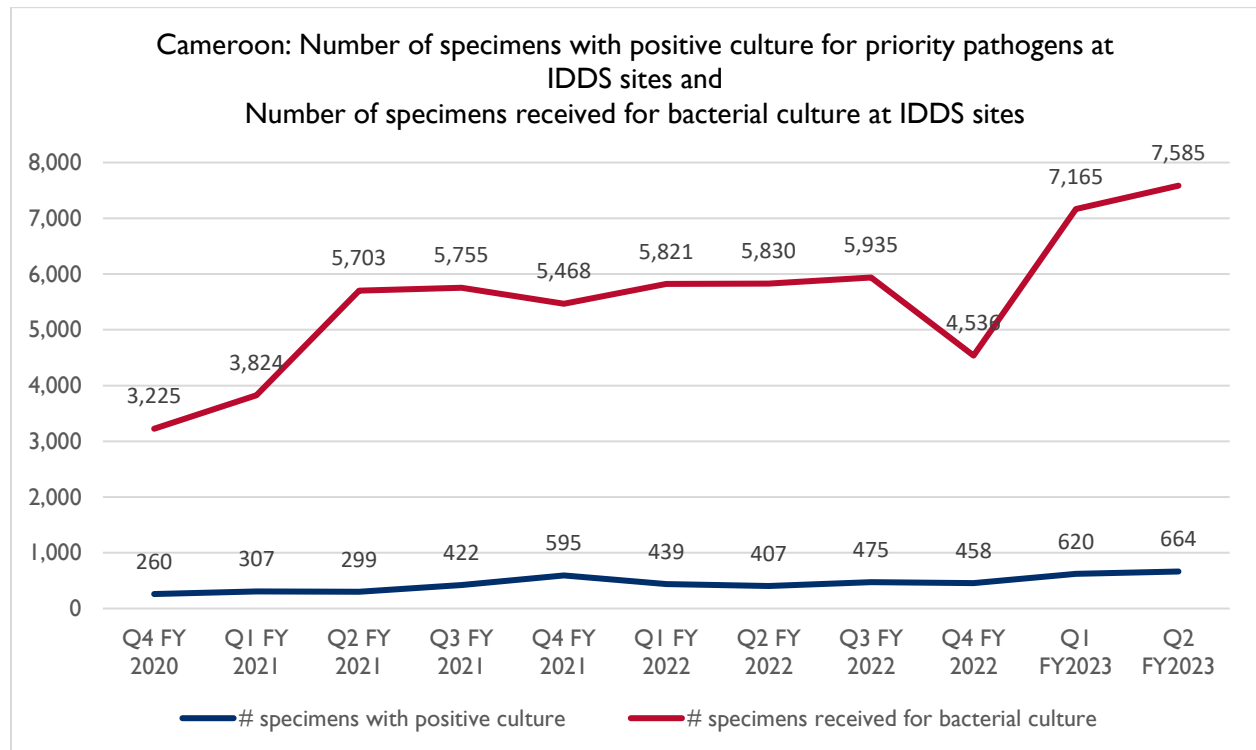


Assessment
completed

Biosafety and biosecurity

FY 2023 Q2 Outcome Results

IDDS is strengthening the capacity for bacteriology testing in nine human health and three animal health sites in Cameroon, which has resulted in increased testing and detection of priority pathogens. Three new sites started to be supported by IDDS in FY 2023. The FY 2023 Q2 report included data from only nine human health laboratories and two animal health laboratories. One of the animal laboratories did not receive any specimens in FY 2023 Q2. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator. The priority pathogens reported for Cameroon in FY 2023 Q2 included: E. coli, Klebsiella Pneumoniae, Acinetobacter Baumannii, Staphylococcus Aureus, Streptococcus Pneumoniae, Salmonella, Shigella, Pseudomonas Aeruginosa, and Neisseria Gonorrhoeae.



DEMOCRATIC REPUBLIC OF THE CONGO

IDDS submitted the DRC FY 2023 GHS work plan on November 11 and a revised version on December 20. The DRC GHS work plan was approved on January 9.

Quarterly Highlights

Success Story:

- DRC Laboratory Achieves National Milestone with IDDS Support: First Plague Specimens Cultured

Diagnostic Highlights:

- IDDS established new testing capabilities for *Yersinia pestis* (plague bacterium) at the INRB laboratory in Goma—a milestone for DRC that supports ongoing outbreak response as well as future preparedness. IDDS supported the transport of eight plague specimens from Rethy and Aru health zones to INRB in Goma for testing and initiated a TWG with stakeholders to address challenges in the plague outbreak response in Ituri province. IDDS also conducted an online training for 15 laboratory workers (6 female) on specimen management for priority pathogens, and procured and delivered specimen collection kits and culture media to INRB in Goma for *Yersinia pestis* diagnostics. IDDS conducted a mentoring visit to INRB in Goma to build capacity of laboratory workers on *Yersinia pestis* culture, allowing the laboratory to successfully complete the first-ever in-country culture of *Yersinia pestis* using the materials procured by IDDS.

EVD Diagnostic Highlights:

- To improve biosafety, IDDS organized and facilitated an online training on specimen management for priority pathogens, including the Ebola virus, for 15 laboratory workers (6 female) from INRB laboratories in Goma, Beni, Bunia, and Butembo; provincial laboratories in Ituri and North Kivu; and the provincial divisions of health in Ituri and North Kivu. The training's focus on biosafety and biosecurity and the use of personal protective equipment reduces the risk that the trained individuals—who are the people most regularly involved in the management of specimens during infectious disease outbreaks—will expose themselves, their colleagues, and the environment to chemical, biological, pathogenic, and physical hazards resulting from performing their work in the laboratories.
- IDDS engaged the United Nations Humanitarian Air Service to transport 6,966 specimens from 2 previous EVD outbreaks (i.e., the 12th EVD outbreak on February 7–May 3, 2021, and the 13th outbreak on October 8–December 16, 2021) from an INRB sentinel site in Beni to the INRB laboratory in Goma, which is able to ensure that the specimens are stored at the appropriate temperature and with the required biosafety/biosecurity precautions. The safe transport and storage of these EVD specimens ensures the security of biological materials in laboratories and protects these specimens—which contain biological agents—from theft, loss, or misuse.

Problems Encountered and Solutions

Problem	Resolution	Status
Security concerns and the state of emergency in North Kivu and Ituri provinces (May 2021 to date) caused implementation delays.	IDDS has regularly checked security information, which is now more readily available. The project only authorizes travel to these areas when security permits. When traveling, staff have taken more caution in Goma and the Eastern region.	In progress The state of emergency in Ituri and North Kivu provinces has been prolonged by the DRC government.
Evacuation of IDDS Goma-based staff impeded implementation of many activities in the Eastern region.	Staff previously based in Goma started working remotely, and IDDS established an agreement with local agencies to transport specimens. The project closed the Goma office and presented a concept note on potential contingencies to USAID. IDDS communicates regularly with the local MoH, provincial health division, and INRB sites.	In progress

Lessons Learned

- Opportunities to share updates and experience among partners involved in outbreak support led to effective collaboration. Partners were able to coordinate to avoid overlap of interventions, prevent loss of stock due to expiration, and reduce stockouts of laboratory supplies.
- The close collaborative relationships with the provincial health authorities, the heads of the supported institutions (INRB in Goma and its satellite sites), and other relevant stakeholders allowed project activities to continue, even after the evacuation of the IDDS team based in Goma, with remote coordination from the IDDS office in Kinshasa.

FY 2023 Q2 Output Results

16



People trained

SRS and biosafety–EVD

11



TWG
meetings held

Testing–GHS (9)
Commodity management–EVD (2)

3



People mentored

Testing–GHS

6,981



Specimens
transported

SRS–plague (8)
SRS–EVD (6,973)

FY 2023 Q2 Outcome Results

None to report

ETHIOPIA

Quarterly Highlights

Success Story:

- Intensified Mentorship Improves the Quality of AMR Detection and Surveillance in Ethiopia

Diagnostic Highlights:

- To increase the utilization of bacteriology services, IDDS conducted an AMR diagnostic stewardship workshop for clinicians at Jimma University Hospital and Hawassa Hospital, which are two of the five IDDS-supported human health AMR sites. The training covered the microbiology laboratory services available, the types of specimens to submit to the laboratory for analysis, and how to effectively use the AMR testing results for optimal patient outcomes. The training helped the participants understand factors affecting bacteriology laboratory turnaround times and reporting.

Surveillance Highlights:

- To assist five AMR surveillance sites in preventing stockouts and waste, IDDS organized a training on microbiology store management, quantification, and forecasting training. During the training, the sites developed AMR test plans and annual consumption plans to forecast the supplies they will need based on historical data.

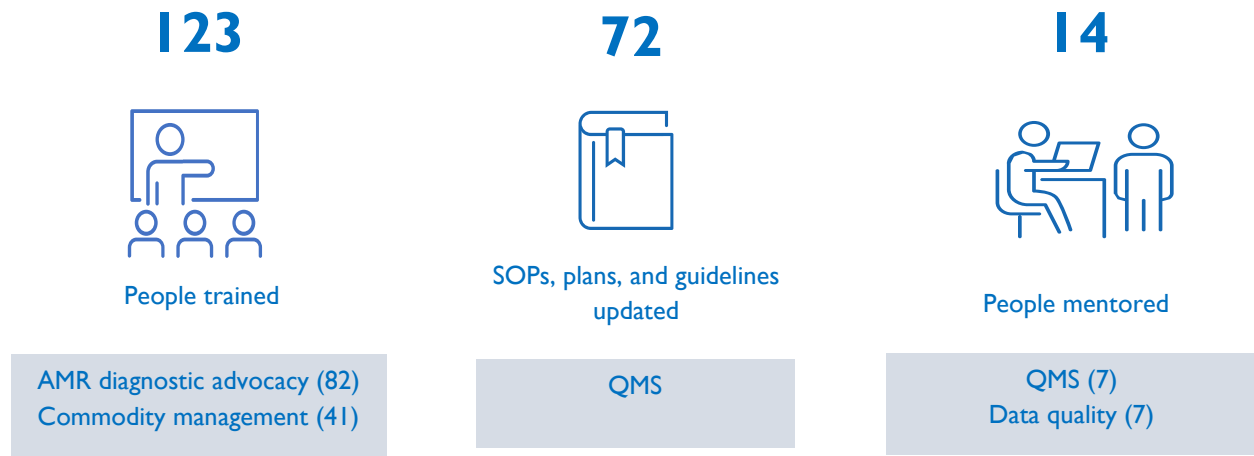
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

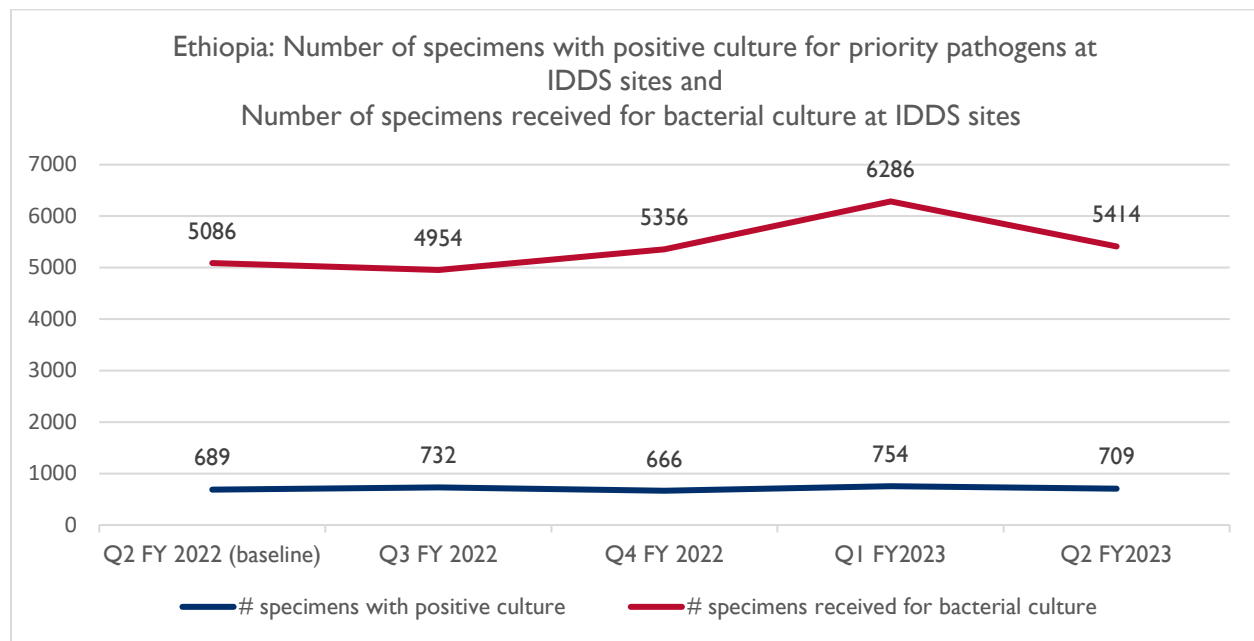
- Conducting workshops and training in the regions where the AMR sites are located—instead of conducting these activities outside of the region of implementation—is more cost-effective and helped IDDS train more people.
- To ensure sustainability and empower diagnostic facilities, responsibility of the coordination of site-level training was transferred to the sites themselves (e.g., for the diagnostic stewardship training).

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

IDDS has strengthened capacity for bacteriology testing in five human health laboratories in Ethiopia, which has resulted in increased testing and detection of priority pathogens. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator. The priority pathogens reported for Ethiopia in FY 2023 Q2 included Acinetobacter spp., E. coli, Klebsiella Pneumonia/spp, Neisseria gonorrhoeae, Pseudomonas aeruginosa, Salmonella, Staphylococcus aureus, and Streptococcus Pneumonia.



GUINEA

Quarterly Highlights

Diagnostic Highlights:

- To improve access to diagnostic testing, IDDS facilitated the expansion of the integrated SRS from 13 districts to all 33 health districts in Guinea. This expansion, based on the pilot led by IDDS, has drastically improved specimen transport in the country. Currently, approximately 80 percent of specimens from suspected cases of priority infectious diseases reach reference laboratories in a timely manner, with low specimen rejection rates and at a reduced cost. IDDS directly supports specimen transport in approximately 30 percent of Guinea’s health districts.
- To identify corrective actions that will foster improvements to quality services, IDDS visited five IDDS-supported regional hospital laboratories, specifically those in Mamou, Kankan, Labe, Kindia, and Labe, to review documents related to QMS, laboratory results, and stock management. After reviewing the available documents, IDDS developed or updated 26 that were missing or out of date, including 20 SOPs on QMS and testing.

Problems Encountered and Solutions

Problem	Resolution	Status
Procurement delays affected implementation of some activities.	IDDS worked closely with vendors to ensure timely delivery of supplies.	In progress
Frequent political protests led to some implementation delays of field activities.	To avoid harm and delays, IDDS closed the office and allowed staff to work from home.	In progress

Lessons Learned

- Partnerships with other implementing partners allowed IDDS activities in Guinea to expand. The SRS and AMR surveillance activities benefited from collaboration with partners such as Village Reach, CDC, and the Mériex Foundation.

FY 2023 Q2 Output Results

4



People trained

Testing and QMS

26



SOPs, plans, and guidelines developed

Testing and QMS (20)
Equipment maintenance (5)
Commodity management (1)

5



Supportive supervision visits

Testing and QMS

1



TWG meeting held

AMR data quality

10



People mentored

Electronic reporting systems

389



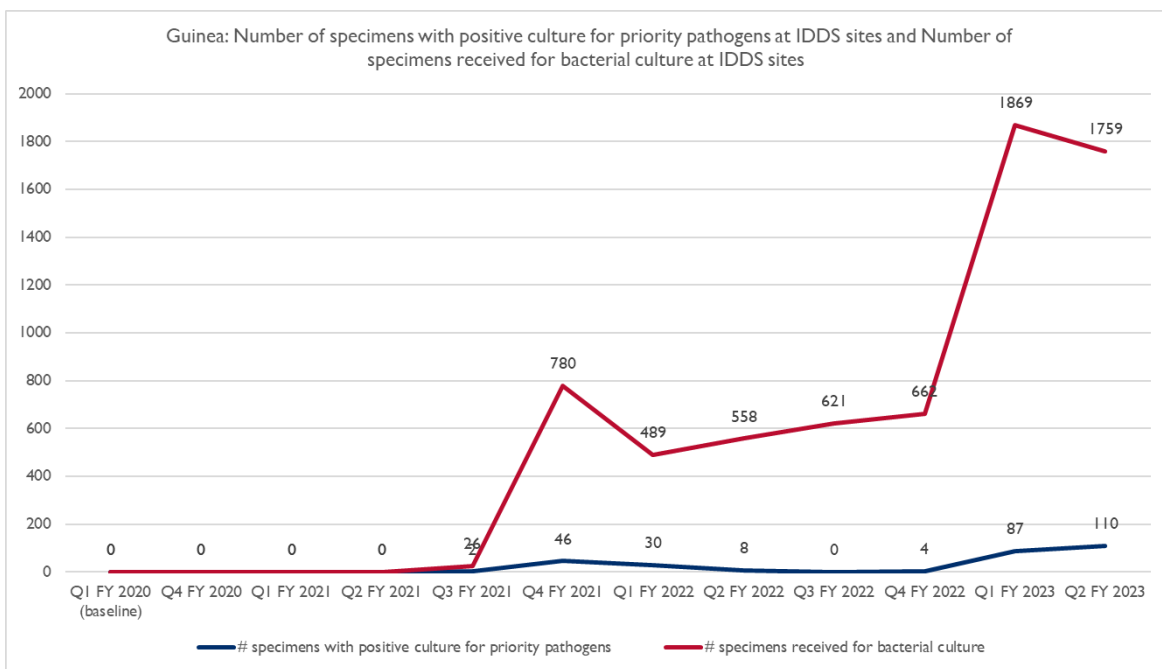
Specimens transported

SRS

FY 2023 Q2 Outcome Results

IDDS is strengthening the capacity in Guinea for bacteriology testing in six regional sites and one national site. In FY 2021 IDDS enabled bacteriology testing in three laboratories, and in FY 2023 IDDS started supporting an additional three laboratories for bacteriology and AMR surveillance. The seventh laboratory that IDDS is supporting has not yet begun culture and AST as of Q2 FY 2023.

From Q2 to Q4 of FY 2022, three IDDS supported labs had stock outs of reagents for culture and AST and experienced interruption of testing services resulting in low numbers of positive cultures. During the period of stock outs, gram staining and microscopy screenings continued at IDDS sites. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator, which in most reporting periods, included E. coli, Klebsiella Pneumoniae, Acinetobacter Baumannii, Staphylococcus Aureus and Xylosus, Streptococcus Pneumoniae, Salmonella, among others.



INDIA

Quarterly Highlights

Surveillance Highlights:

- To provide inputs for the NAP for combating AMR in India, IDDS compiled feedback from more than 50 national experts representing many sectors in a report that was approved by the NCDC AMR focal point. The approved report summarizes the key priorities that emerged from three meetings convened by IDDS in previous quarters, and these priorities will inform the development of the revised NAP, which provides a roadmap toward tackling AMR, grounded in the current national strategic priorities.
- To provide diagnostic and surveillance support to NCDC and other key stakeholders, IDDS established a technical support unit within the AMR division of NCDC.

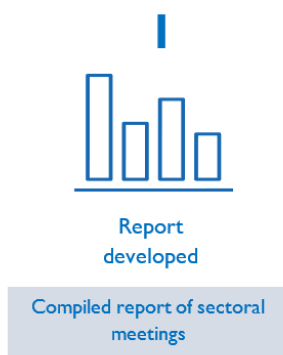
Problems Encountered and Solutions

Problem	Resolution	Status
Political instability in the state of Sikkim delayed the planned consultation stakeholders meeting.	IDDS rescheduled the consultation for FY 2023 Q3.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results



INDONESIA

IDDS submitted a revised version of the FY 2023 work plan to USAID on October 28, 2022. The work plan was approved on February 24.

Quarterly Highlights

Success Story:

- Indonesia Prepares to Face Future Epidemics by Institutionalizing a “One Health” Approach

Surveillance Highlights:

- Building on the project’s work to integrate surveillance of zoonotic diseases across human health and animal health sectors, IDDS supported the launch of the Coordinating Ministry Regulation, entitled Guidelines for the Prevention and Control of Zoonoses and New Emerging Infectious Diseases. This regulation will become the basis for all One Health implementation at local and national levels in Indonesia. The guidelines provided in the regulation will inform planning, compiling, implementing, and evaluating interventions to combat zoonoses; efforts to prevent and control emerging infectious diseases; and promotion of related cross-sector policies.

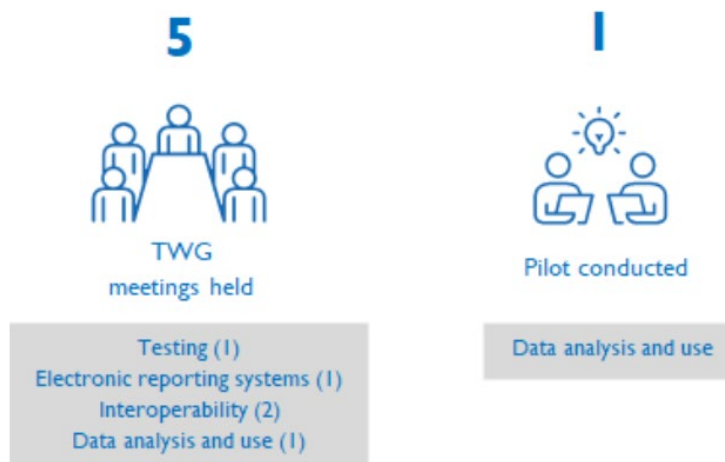
Problems Encountered and Solutions

Problem	Resolution	Status
Implementation of new activities were paused pending final work plan and budget approvals.	The FY 2023 work plan was approved on February 24, 2023.	Resolved
IDDS is not providing technical assistance to districts on the Zoonosis and Emerging Infectious Disease Information System (SIZE), because the Government of Indonesia asked IDDS to upgrade SIZE to version 2.2 (microservice) and to complete SIZE development by the end of May 2023.	IDDS discussed this issue with the USAID mission and requested to switch the budget for this activity from technical assistance to development through a vendor contract. Pending approval, IDDS will follow up with the vendor.	In progress

Lessons Learned

- For complex endeavors, such as upgrading SIZE, it is crucial to engage staff from multiple government ministries and coordinate requests for assistance, to identify feasible solutions. After observing that facilities in certain rural and remote areas lacked Internet access and were unable to report disease information to SIZE, IDDS assessed their Internet coverage needs and engaged the three ministries involved in overseeing the facilities (Ministry of Agriculture, MoH, and Ministry of Environment and Forestry) to jointly request assistance from the Telecommunication and Information Accessibility Agency under the Ministry of Communication and Information, which will provide Internet coverage through base transceiver stations or satellites.

FY 2023 Q2 Output Results

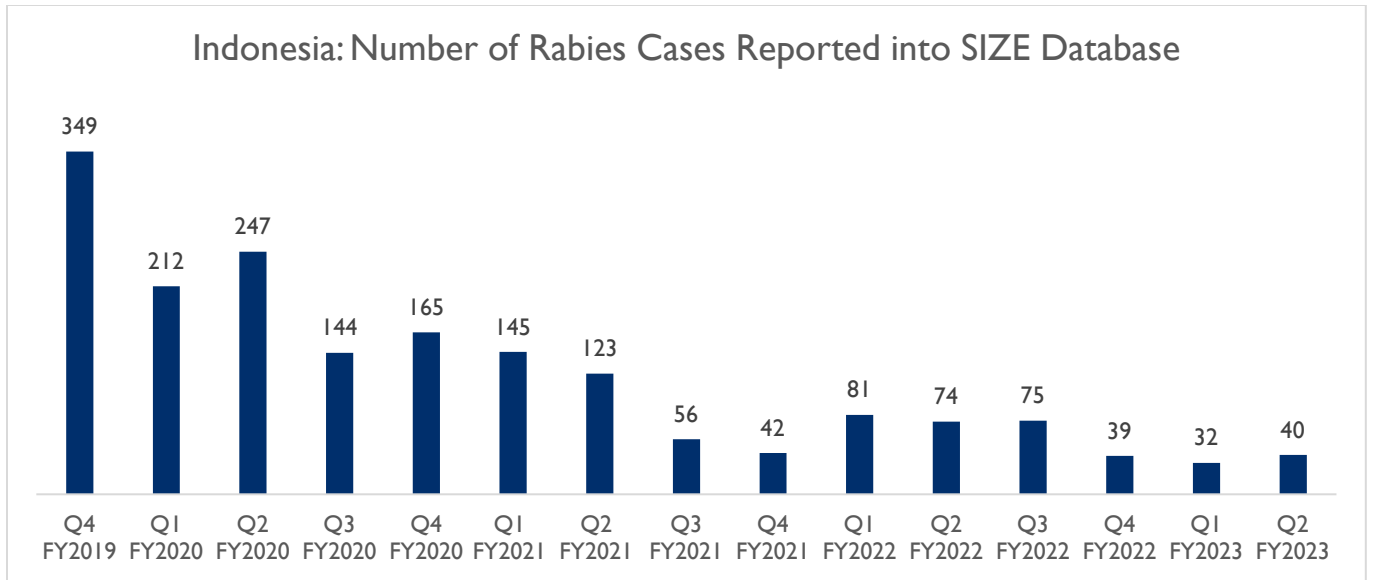


FY 2023 Q2 Outcome Results

IDDS is supporting the Indonesian government to develop SIZE, which is an integrated health information and early warning notification system to share data across three health sectors (human, animal and environment/wildlife). IDDS is working to increase functionality and use of the SIZE database. Thus far, only Rabies cases are reported into the system but the government plans to expand the system to capture cases of other emerging infectious and priority diseases.

In September 2019 (baseline), when SIZE became operational, a high number of Rabies cases were recorded in SIZE partly due to officers from multiple government sectors entering historical data at that time. Since baseline, there are several reasons for a decrease in case numbers reported into SIZE:

1. Decrease in incidence of animal bites leading to suspected Rabies cases in humans and due to increased rabies vaccination coverage.
2. Decrease in available government staff to open cases in SIZE at the district level due to staff shortages and moving health staff to new postings without filling gaps
3. COVID-19 pandemic drained resources from the overall government budget to support general infectious disease surveillance work. Staff in health sector of the Government of Indonesia, at all levels, fully participated in control of pandemic, therefore there was a concomitant decrease in reporting cases into SIZE from March 2020 to January 2022.



KENYA

Quarterly Highlights

Diagnostic Highlights:

- IDDS restored access to timely and accurate bacteriology testing at two laboratories by repairing equipment that had been out of service for five years. IDDS supported Kitale and Malindi counties to secure a one-year service maintenance contract with bioMérieux for repair and servicing of the VITEK 2 Compact instruments at Kitale County Referral Hospital Laboratory and Malindi Sub-county Hospital Laboratory. (The VITEK 2 is a piece of equipment for automated organism identification and AST.) Under the contract, bioMérieux visited the two IDDS-supported laboratories, repaired the two VITEK 2 Compact instruments, and trained laboratory staff on the use of the instruments. The service contract will guarantee planned preventive maintenance of the equipment and timely response to any breakdowns, thus contributing to effective delivery of health care services at the two sites.

Surveillance Highlights:

- IDDS assessed the ability of five laboratories to detect AMR, which revealed significant improvements, made possible through the project. Both in 2019 and during FY 2023 Q3, the project used CDC's LAARC tool to assess capacity at Murang'a County Referral Hospital Laboratory, Nyeri County Referral Hospital Laboratory, Bungoma County Referral Hospital Laboratory, Kitale County Referral Hospital Laboratory, and Malindi Sub-county Hospital Laboratory—and all five sites showed significant improvement. For example, at baseline in 2019, the Murang'a County Referral Hospital Laboratory had an overall score of 23 percent; on re-assessment, it had a score of 89 percent. The Bungoma County Referral Hospital Laboratory, which had an overall score of 48 percent at baseline, had a score of 88 percent on re-assessment. The LAARC outcomes show the efficacy of the capacity building activities carried out by IDDS and point to remaining areas for improvement.
- To streamline AMR data review, cleaning, and analysis, IDDS supported the reconfiguration and upgrading of the LIMS in use at Nyeri and Kitale County Referral Hospital Laboratories. The upgrades and reconfigurations improved the microbiology module of the LIMS, which laboratory technicians use to manage AMR data locally and transmit data to the national-level CDW.

EVD Highlights:

- To improve safety and build capacity for detecting EVD, IDDS provided technical assistance to the laboratory sub-committee of the National Ebola Preparedness Incident Management Team to train 282 (137 female) frontline health care workers from 10 high-risk counties on suspected EVD case specimen collection, packaging, and transport.

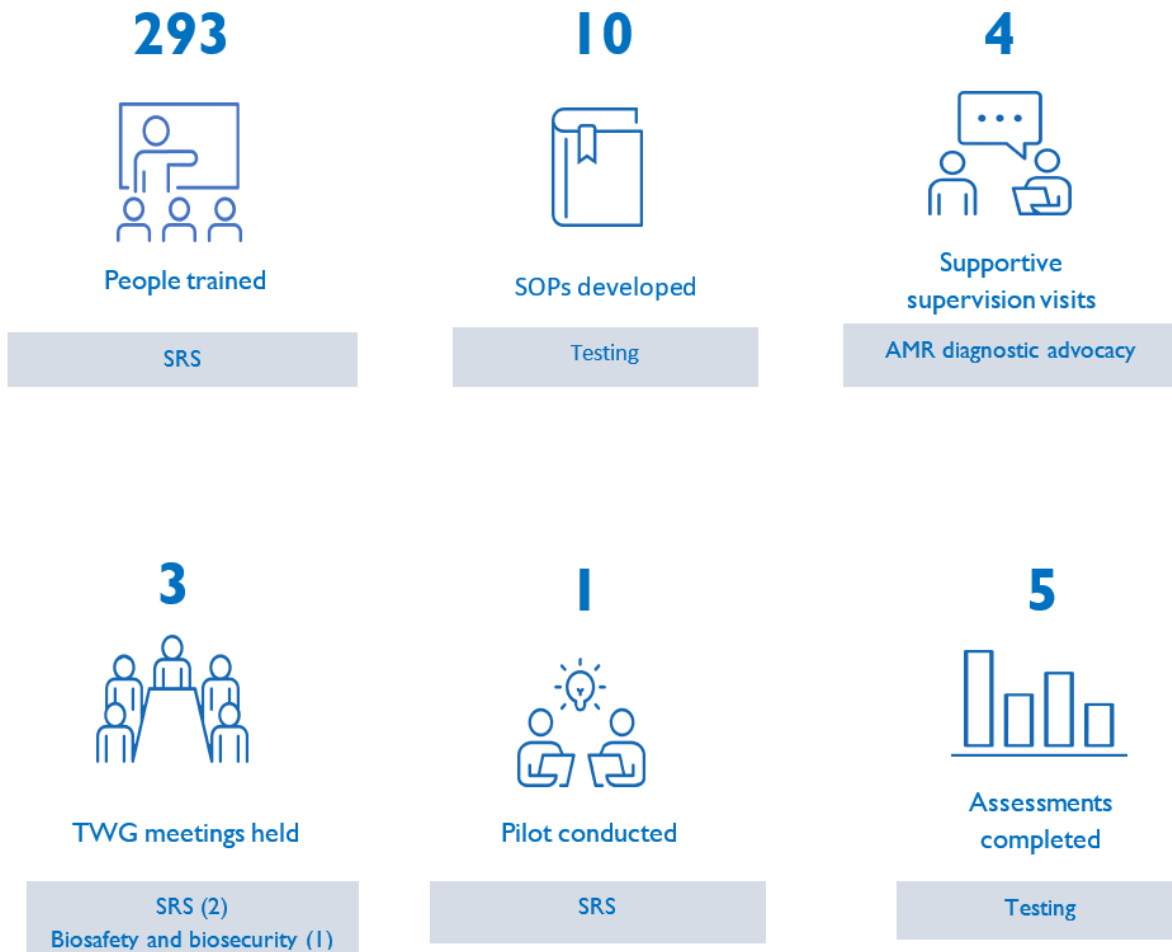
Problems Encountered and Solutions

Problem	Resolution	Status
There was a change in county government leadership after the general elections in August 2022, which affected the implementation of certain activities.	IDDS continued to engage with county teams (including new leadership) and monitor progress.	Resolved
There was uncertainty about whether the remaining EVD specimen management trainings should be held after the outbreak in Uganda was declared over (January 11, 2023) and the widespread cholera outbreak in Kenya changed MoH priorities.	IDDS held discussions with the MoH Division of Disease Surveillance and Response, IDDS headquarters, and USAID in Kenya and agreed to proceed with the trainings as planned because the topics would be applicable for any potential future outbreaks.	Resolved

Lessons Learned

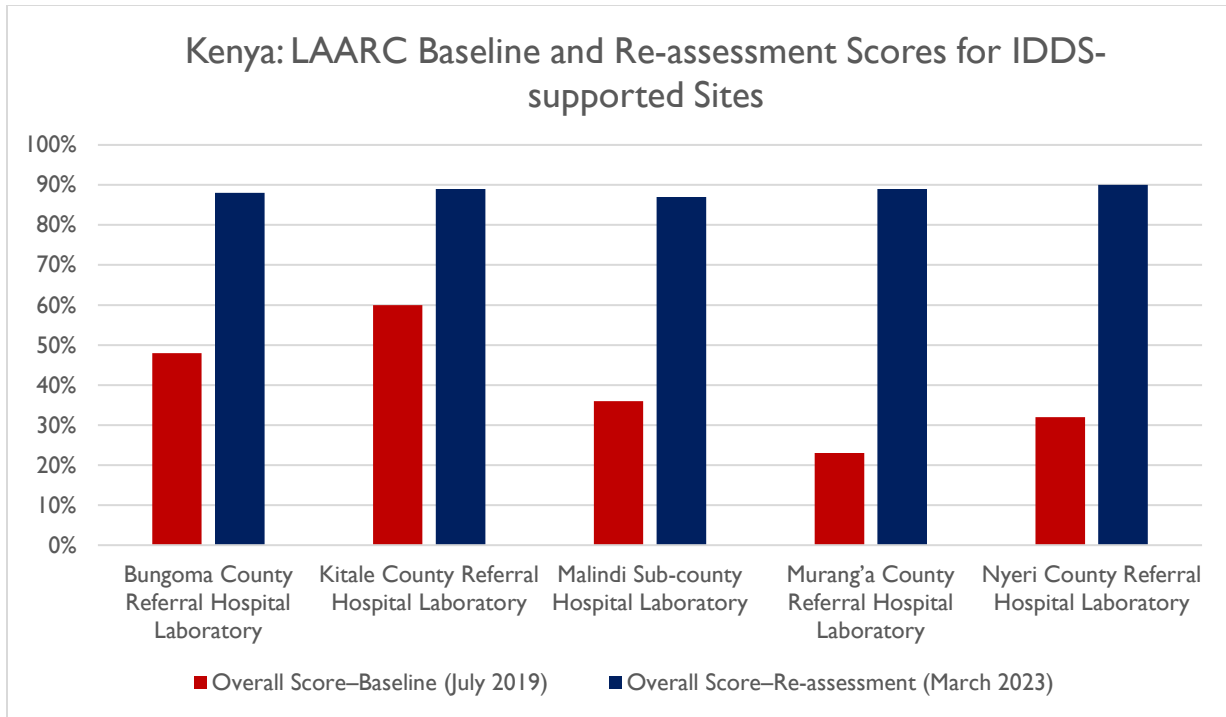
- Continuous reflection on planned activity execution methods and adjustments (where applicable) is important for smooth and timely conduct of planned activities. Although IDDS had planned to carry out the assessment of antibiotic resistance testing capacity at the same time as the engagement meetings with the new county governments, the project later decided to conduct them separately. This allowed the project to conduct the assessment on time, despite delays in the formation of county governments; it also helped ensure that the assessment results were available for use during the engagement meetings with the county leadership.
- A one-day facilitators' workshop to review successes and areas for improvement and discuss participants' recommendations between the two rounds of EVD specimen management trainings provided a perfect opportunity to review and revise the training material content and flow. Facilitators reviewed the training presentation slides, focusing on the content that could be delivered within the allocated training time. This enabled facilitators to efficiently deliver the training content without having to rush through the slides during the training.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

CDC's LAARC is a tool for evaluating clinical bacteriology laboratories' capacity to detect and report AMR in terms of staff technical skills and quality management practices. Designed for use in low- and middle-income countries, the tool helps laboratories to develop work plans for improvement and monitor performance over time. The graph below illustrates the significant improvement of scores seen in each of the five IDDS-supported labs since IDDS started activities in the country. The average baseline score increased by 49 percentage points, from 40 percent in 2019 to 89 percent in 2023.



LIBERIA

Quarterly Highlights

Success Story:

- Transition from Paper-based to Electronic Data Capture of Laboratory Commodities in Liberia

Diagnostic Highlights:

- To improve and maintain the quality of bacteriology services at supported laboratories, IDDS mentored laboratory technicians at four supported sites (Bong Mines Hospital, C.B. Dunbar Hospital, G.W. Harley Hospital, and Curran Lutheran Hospital) to address non-conformities identified during audits conducted in September 2022 and during routine work. The project also supported six technicians (one female) to attend an internal audit training in Monrovia, as a way to address past performance issues found in Section 6 (Evaluations and Audits) of the SLIPTA checklist. IDDS developed SOPs and EQA forms for bacteriology, and the project prepared EQA panels for four laboratories that will be used to independently measure the accuracy and reliability of their services.
- Tellewoyan Memorial Hospital's laboratory team demonstrated improved operational capacity this quarter by directly procuring laboratory commodities for the facility (rather than waiting for partner support). This achievement reveals the success of IDDS efforts to institutionalize aspects of laboratory management and operations and ensure that the laboratory staff have the knowledge and tools to procure commodities themselves.

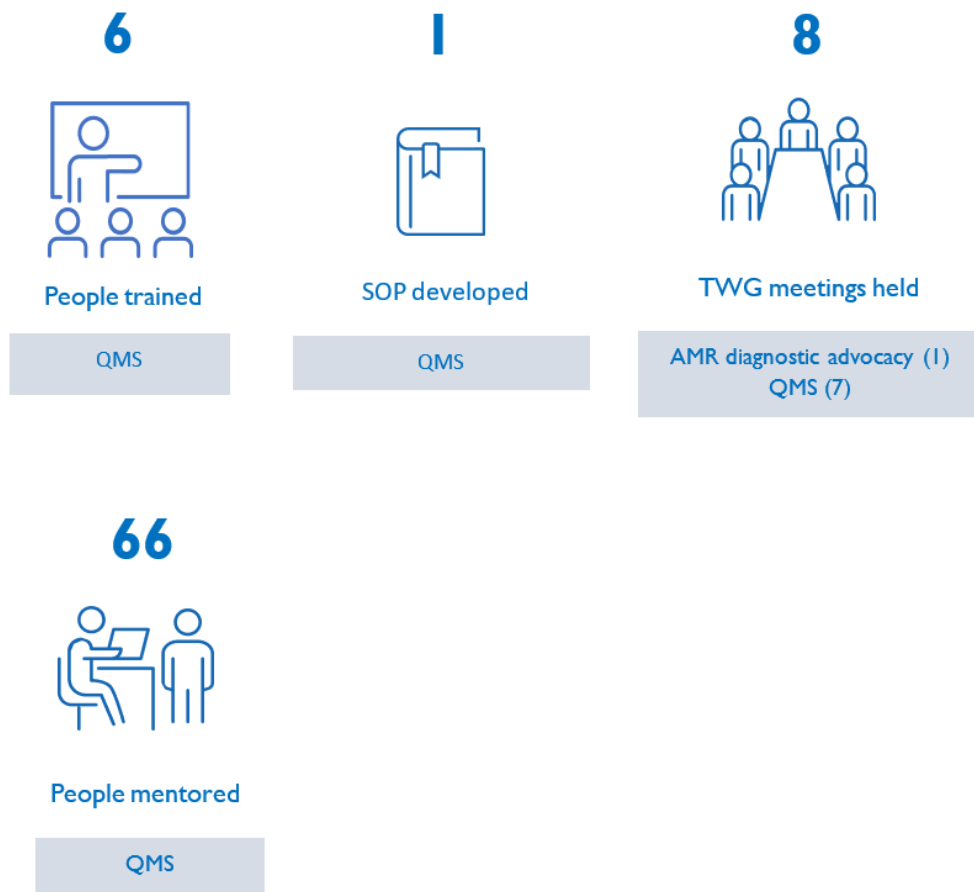
Problems Encountered and Solutions

Problem	Resolution	Status
Tellewoyan Memorial Hospital's solar system is not able to support bacteriology culture services because there is not enough power for the incubators at night.	IDDS contracted a technician to assess what is needed to make the system fully functional. The consultant determined that the existing systems can be integrated to improve and stabilize the electricity supply from the solar system.	In progress
There was a delay in the recruitment of a consultant to support the integrated (One Health) antimicrobial surveillance strategy, because there were no responses to the call for a local consultant.	IDDS engaged the Liberia One Health team to assist in distributing the advertisement.	In progress (interviews conducted and analysis will be sent to headquarters for recruitment to be completed)

Lessons Learned

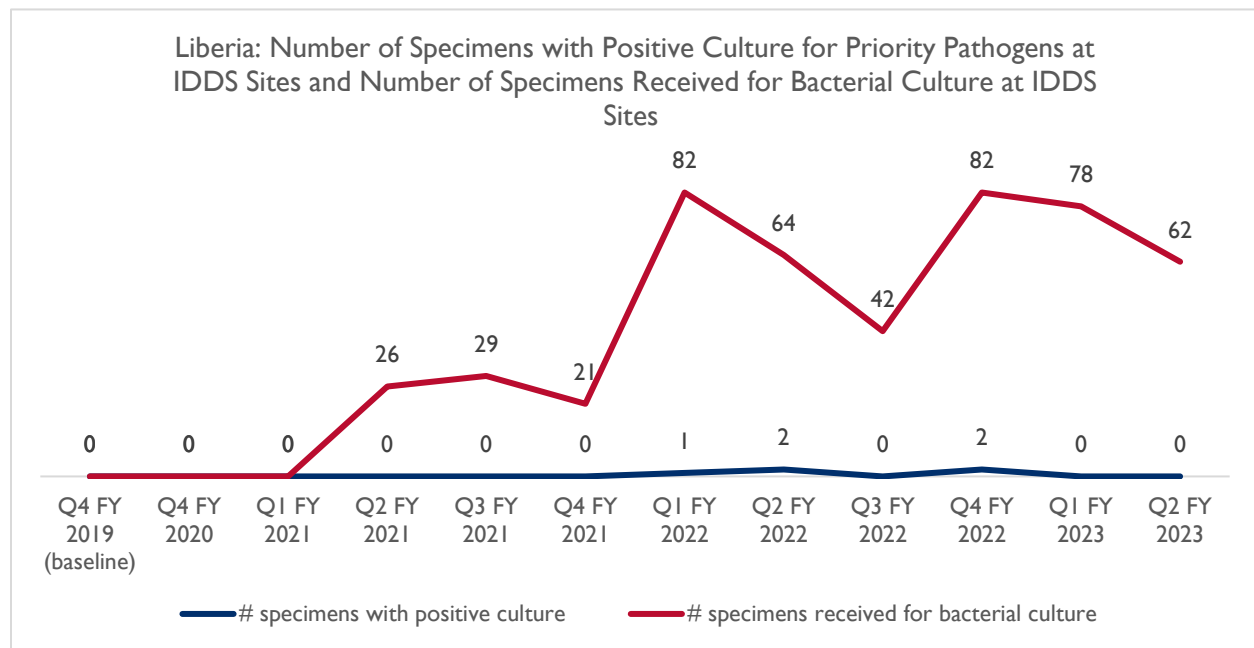
- To increase the volume of specimens referred to IDDS-supported laboratories, there is a need for increased advocacy efforts and engagement with county officials and the local network of doctors. It is also important to have a champion who leads this advocacy in each facility.
- It is important to engage local teams in finding local sustainable solutions to implementation challenges.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

IDDS has strengthened capacity for bacteriology testing in three laboratories which has resulted in increased testing. However, the number of specimens received remains low, as does the detection of priority pathogens. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator. In Liberia, this includes *Salmonella typhi*, *Vibrio cholerae*, *Neisseria meningitides*, *Streptococcus pneumoniae*, and *Haemophilus influenzae type b(Hib)*, and *Shigella dysenteriae*. During FY 2023 Q2, the Tellewoyan laboratory was not able to receive specimens because of a power outage that lasted the entire reporting period, leading to a slight decrease in the overall number of specimens received at IDDS sites.



MADAGASCAR

IDDS submitted the Madagascar FY 2023 GHS work plan on October 6, 2022, and submitted a revised version on December 15, 2022. The Madagascar GHS work plan was approved on January 9.

Quarterly Highlights

Diagnostic Highlights:

- To improve management and forecasting of laboratory supply needs, IDDS provided financial and logistical support to organize TWG meetings to develop and validate a guide for the management of laboratory supplies and medical imaging units of public hospitals. The meeting resulted in an understanding of the inventory of the country's reagents, consumables, and medical imaging at the operational level; pricing structure and revenue management; and potential solutions. Next, IDDS plans to update the National List of Laboratory Supplies and revise the pricing structure.

Surveillance Highlights:

- IDDS collaborated with the Directorate of Health Monitoring, Epidemiological Surveillance, and Response to improve the coordination of IDSR by developing and reviewing three monthly bulletins and disseminating them electronically to stakeholders. The IDSR bulletins represent the only mechanism through which MoH delivers feedback to surveillance actors at the regional and district levels.

Problems Encountered and Solutions

Problem	Resolution	Status
Funding for diagnostic activities through IDDS's primary collaborator, the Mérieux Foundation, is still pending, affecting several activities.	IDDS headquarters, IDDS Madagascar, and the Mérieux Foundation (USA, France, and Madagascar) met during a monthly call to discuss IDDS activity updates and funding delays.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

3



TWG
meetings held

Commodity management (1)
Testing (2)

FY 2023 Q2 Outcome Results

- None to report.

MALI

Quarterly Highlights

Success Story:

- IDDS Equips the Mali National Institute of Public Health for Infectious Disease Detection, including COVID-19 Genomic Sequencing

Surveillance Highlights:

- IDDS conducted three IDSR training sessions in Kangaba and Kati health districts, equipping health staff in those districts to effectively detect, report, and investigate cases of diseases and events under surveillance.
- IDDS conducted one CBS supervision and coaching visit in Sikasso health district, which led to increased capacities for using tools, correctly coding forms, identifying community cases, and actively tracking and investigating suspected infectious diseases, thus leading to more effective and timely reporting and treatment.

COVID-19 Diagnostic Highlights:

- IDDS received 153,351 commodities to support genomic sequencing for COVID-19 at INSP. These included cryotubes, pipettes and tips, mini-centrifuges, buffers, and primers, among others. IDDS will formally hand over these goods to INSP on April 15.

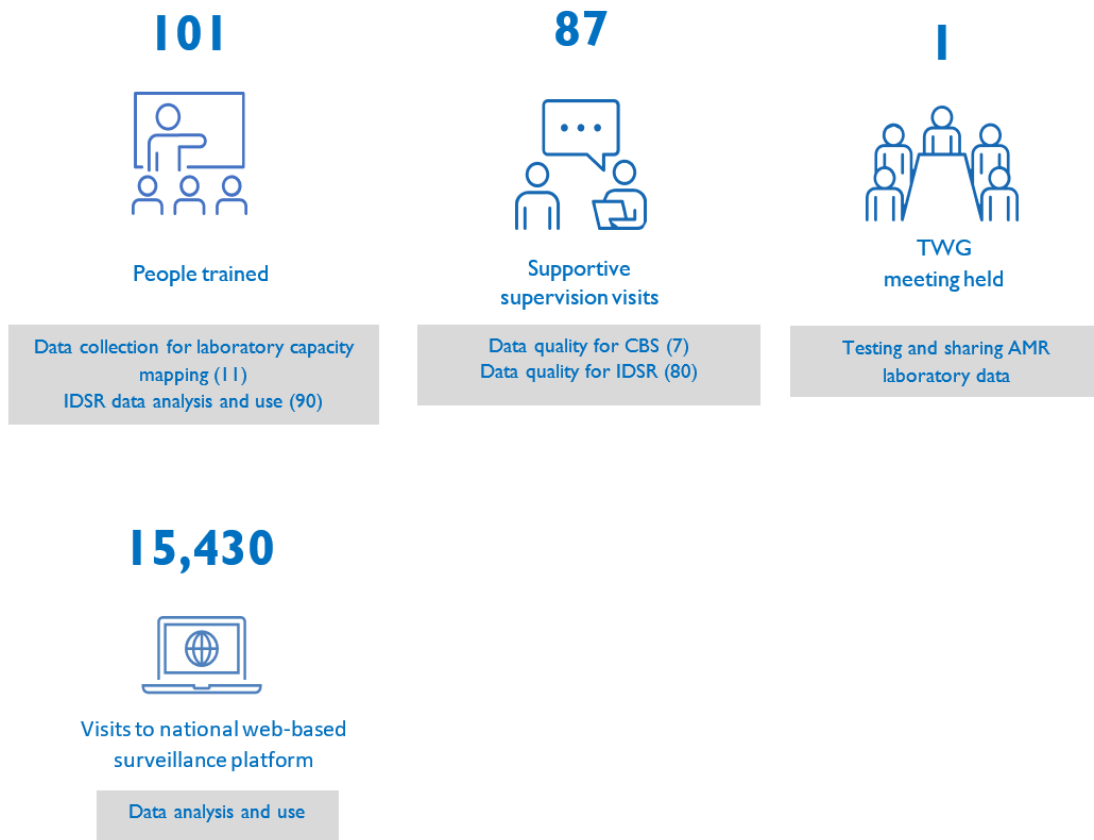
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

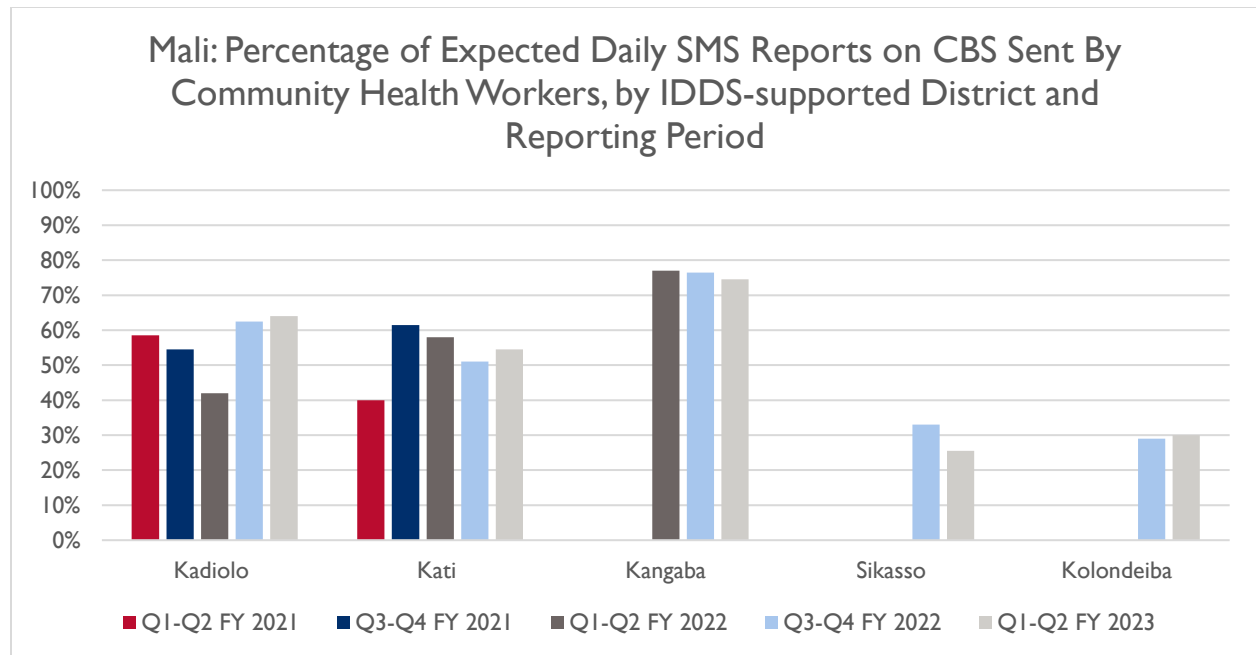
- Working with local government agents allows activities to be carried out in insecure areas at a lower cost than using consultants.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

In FY 2023, 330 CHWs from five IDDS-supported districts are actively reporting on suspected disease cases and events through the CBS system that IDDS helped to establish and roll out. Prior to FY 2021 none of the five supported districts were reporting CBS data. IDDS started implementing in two districts (Kadiolo and Kati) in FY 2021 and expanded to others in subsequent periods. While daily reporting has improved after initial implementation, challenges remain to achieving improved reporting rates including technical problems and coverage with mobile phones, CHW turnover, inconsistent daily monitoring of CHWs by district and community health center staff due to resource limitations, and irregular payments to CHWs by MOH. SMS reporting rates in Kangaba district are consistently higher than other districts partly due to well-functioning phones and some experience working on the border with detecting Ebola cases.



PHILIPPINES

Quarterly Highlights

COVID-19 Diagnostic Highlights:

- To support COVID-19 detection, IDDS transported 848 specimens for reverse transcription PCR testing from 11 collection sites to testing sites in 4 IDDS-supported provinces: Cavite, Isabela, Laguna, and Palawan. IDDS also delivered 4,200 rapid antigen tests, 2,500 units of viral transport media, 15 biological spill kits, 5 pipettors, and 1 microcentrifuge to IDDS-supported provinces.
- IDDS collaborated with the Research Institute of Tropical Medicine to conduct a webinar on biosafety and biosecurity on February 25, 2023. A total of 67 medical technologists and disease surveillance officers (53 female) from 5 provinces (Rizal, Cavite, Palawan, Isabela, and Bulacan) attended the webinar.

Problems Encountered and Solutions

Problem	Resolution	Status
Changes in the Department of Health's organization and staffing structure resulted in local government staff overseeing the COVID-19 response (i.e., disease surveillance officers) being placed on a contract break. During this time, the local government unit temporarily assigned other staff to oversee COVID-19 activities. This transition caused delays in the implementation of some COVID-19 activities while new staff familiarized themselves with the activities and established processes. At the same time, the overall decline in COVID-19 cases in the Philippines has shifted priorities and resulted in difficulty securing buy-in for some of the training and procurement activities.	IDDS worked in close coordination with the surveillance officers from Provincial Epidemiology and Surveillance units, and the Provincial Department of Health Office to ensure continuous COVID-19 specimen transport operations, despite staffing constraints within the local government. IDDS also provided assistance for the orientation of the temporary staff for them to be familiarized with the daily COVID-19 operations in the local government units of the project-supported sites. In addition, IDDS is working closely with the USAID mission to ensure that all activities that are being implemented continue to align with the current COVID-19 response priorities.	In progress
Philippines GHS work plan activities have not yet begun due to delays imposed by the Department of Health (DOH). Specifically, there is an ongoing measles vaccination campaign and	DOH convened a meeting with all implementing partner organizations on March 31, to review work plans, minimize duplication of activities, and align activities with the Joint External Evaluation 3.0. DOH reviewed the IDDS work plan and approved	In progress.

Problem	Resolution	Status
a moratorium on DOH staff participating in any activities not related to the campaign, until July.	the proposed activities. IDDS is setting up all logistics and plans to implement the biosafety and biosecurity trainings and specimen management trainings as soon as the moratorium is lifted in July.	
The activity to support the development of a Joint Administrative Order (JAO) of DOH and the Department of Agriculture will likely not move forward due to shifting priorities. This activity had been planned to streamline disease surveillance and reporting, as well as emergency response, across human health and animal health systems.	IDDS proposed to replace this activity with one related to the intent of the JAO but also aligning with the goals of the National Action Plan for Health Security. DOH and the Department of Agriculture want to build the capacity of the animal health sector and specifically animal health laboratories, and this was included in the draft JAO. IDDS proposed to shift the activity to “Capacity strengthening of identified animal health laboratories on handling, packaging, and transport of biological specimens.”	In progress. The proposed change to the work plan activity was shared with USAID in Washington, DC, for concurrence. IDDS is awaiting feedback.

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

- None to report.

FY 2023 Q2 Outcome Results

- None to report.

SENEGAL

Quarterly Highlights

Success Story:

- Launching Event-based Surveillance in Senegal

Diagnostic Highlights:

- IDDS supported the Directorate of Laboratories to relaunch the QMS in diagnostic facilities, with a specific focus on nine IDDS-supported laboratories. QMS had not been implemented in facilities for more than five years, due to other priorities. With the QMS re-launch and implementation, Senegal will have more reliable and accurate laboratory test results, including results for priority infectious disease tests. IDDS led audits for four of the nine IDDS-supported sites using the SLIPTA checklist, which helped identify the priority gaps for technical assistance.

Surveillance Highlights:

- To support standardized EBS implementation, IDDS collaborated with the Directorate of Prevention to facilitate three workshop sessions to develop tools, SOPs, and guidelines.
- To help identify and accelerate the response to unusual events of public health importance, IDDS continued to support the Directorate of Prevention in efforts to scale up the 4S network. After extensive discussions with the Directorate of Prevention, IDDS expanded the 4S network with the addition of two new sites—Pikine and Yeumbeul. At both sites, IDDS conducted assessments, and key staff were oriented on disease surveillance methods under the 4S network. In addition, staff were oriented on specimen collection and transport and case notification to the designated diagnostic reference laboratory within the 4S network.

Problems Encountered and Solutions

Problem	Resolution	Status
Strikes are ongoing in the country, so health districts are not reporting surveillance data to DHIS2 in a timely and complete manner.	IDDS staff have used their strong relationships with laboratory staff to retrieve data directly from them, rather than from DHIS2.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

3



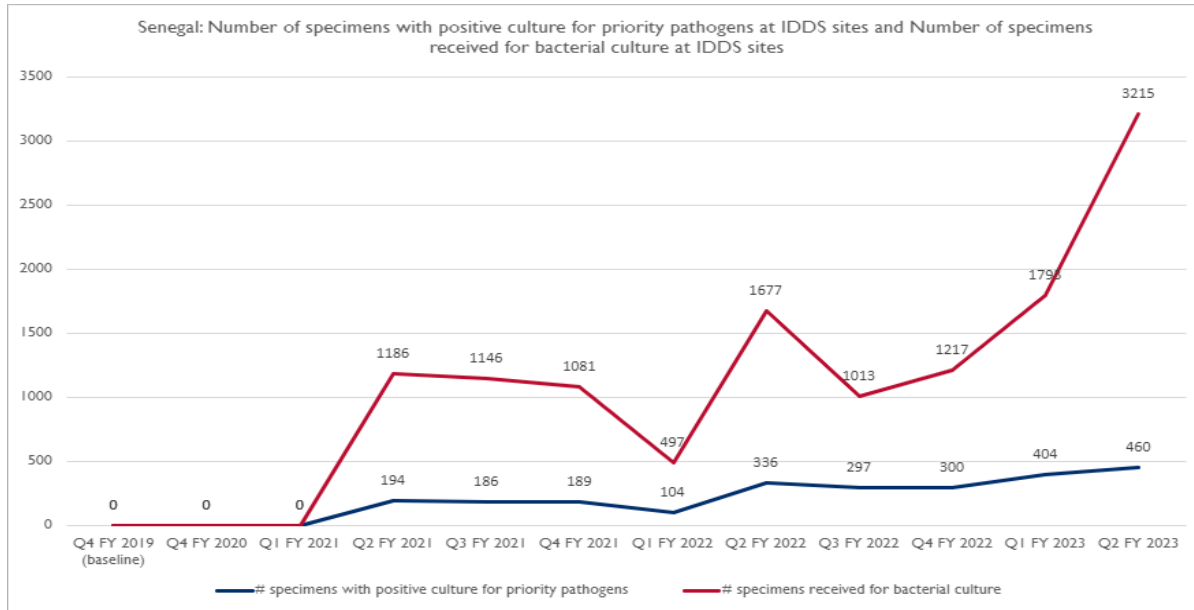
TWG
meetings held

Develop and/or revise EBS
plans, guidelines, and SOPs

FY 2023 Q2 Outcome Results

IDDS is strengthening the capacity in Senegal for bacteriology testing in nine district laboratories. In Q2 FY 2021 IDDS enabled three laboratories to initiate bacteriology testing with a fourth laboratory added later that year. In FY 2022, two more laboratories began culture and AST with IDDS support and in FY 2023, two additional laboratories began culture and AST through IDDS support. Therefore, the data from Q2 FY2023 below are from eight IDDS supported laboratories. The ninth has not yet begun culture and AST due to ongoing site construction. Data show the increase in the number of specimens received and the number of priority pathogens detected at these eight sites. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator, which in most reporting periods, included *E. coli*, *Klebsiella Pneumoniae*, *Acinetobacter Baumannii*, *Enterobacter spp*, among others. In this reporting period, four IDDS supported labs had

stock outs of reagents for culture and AST however only two of the labs had a temporary interruption of bacteriology testing services.



TANZANIA

Quarterly Highlights

Success Story:

- IDDS Work in Tanzania Impacts Lives: From Institutional and Systems Capacity Building to Relieving Human Suffering

Diagnostic Highlights:

- To promote diagnostic stewardship, IDDS trained 25 hospital and laboratory staff (11 female) to implement AMR surveillance and infection prevention and control measures. IDDS also held a meeting (attended by 24 participants [8 female]) to raise awareness of AMR and promote specimen referral from lower-level catchment areas to IDDS-supported laboratories. This will enable the laboratory to generate AMR data tailored to the needs of clinicians, nurses, and pharmacists, informing their antimicrobial drug selection and dispensing practices. These trainings and meetings will also ensure that the planning and implementation of antimicrobial stewardship and infection prevention and control activities are informed by accurate diagnostics and reliable surveillance information.

Surveillance Highlights:

- To strengthen collaboration among clinicians, laboratory staff, and pharmacists, IDDS collaborated with the USAID Mission in Tanzania, USAID's Medicines, Technologies, and Pharmaceutical Services Program, and MoH to conduct a joint site visit to Benjamin Mkapa Hospital in Dodoma. The visit highlighted IDDS and Medicines, Technologies, and Pharmaceutical Services Program activities around AMR detection, AMR surveillance, infection prevention and control, and antimicrobial stewardship, and it explored opportunities to collaborate around shared goals: fewer hospital-acquired infections, improved utilization of laboratory services, and improved ownership and use of AMR surveillance data by all implementing partners and stakeholders at the site.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- Reliable AMR data from laboratory and surveillance systems are key to creating buy-in from stakeholders and other programs for addressing AMR problems through a holistic, multidisciplinary approach.

FY 2023 Q2 Output Results

49



People trained

SRS and AMR surveillance (24)
AMR diagnostic advocacy (25)

3



Supportive supervision visits

Commodity management

1



Pilot conducted

Data quality and SRS

9

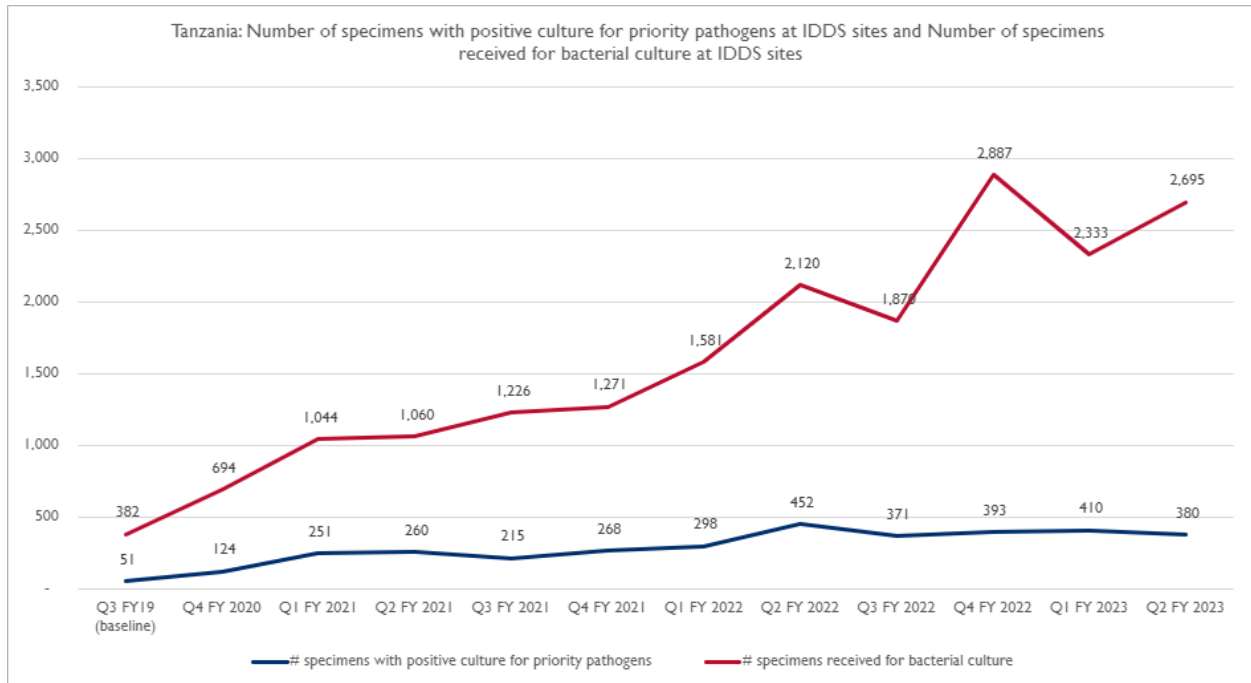


People mentored

Data quality for AMR diagnostics and surveillance

FY 2023 Q2 Outcome Results

IDDS is strengthening the capacity in Tanzania for bacteriology testing in four sites, including one zonal lab and three regional referral hospital laboratories, and has consistently supported the same four sites since the start of the project. The data show an increase in the number of specimens received and the number of priority pathogens detected. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator, which in most reporting periods, included *E. coli*, *Klebsiella Pneumoniae*, *Acinetobacter Baumannii*, *Salmonella*, among others. In this reporting period, three of the four IDDS supported labs had stock outs of reagents for culture and AST however only one of the laboratories had a temporary interruption of bacteriology testing services for one week.



UGANDA

IDDS submitted a revised version of the Uganda FY 2023 GHS work plan to USAID on December 15, 2022, and the revised work plan was approved on January 9.

Quarterly Highlights

Success Stories:

- IDDS Supports Uganda's Animal Health National Reference Laboratories to Build Quality Management Systems
- IDDS Builds Capacity to Implement Integrated Disease Surveillance and Response in Buikwe District
- Uganda IDDS Team Hosts a USAID Technical Support Supervision Visit

Diagnostic Highlights:

- All three national reference laboratories in the animal health sector have developed QMS documents that are required by ISO 17025:2017 for accreditation. IDDS held a document review workshop in Jinja that convened six quality managers from these laboratories to standardize and align existing documents to this standard.

Surveillance Highlights:

- In January, IDDS provided technical support to the National Task Force to hold a virtual meeting to coordinate response to a yellow fever outbreak in five districts (Masaka, Kasese, Buikwe, Buvuma, and Wakiso). IDDS again provided technical support to the National Task Force in March to organize a virtual meeting to coordinate the response to the Rift Valley and bacterial meningitis outbreaks in the districts of Mbarara and Obongi, respectively.

Problems Encountered and Solutions

Problem	Resolution	Status
Multiple surveillance tools and systems have been developed by different implementing partners.	IDDS is holding meetings with partners to harmonize proposed surveillance tools.	In progress

Lessons Learned

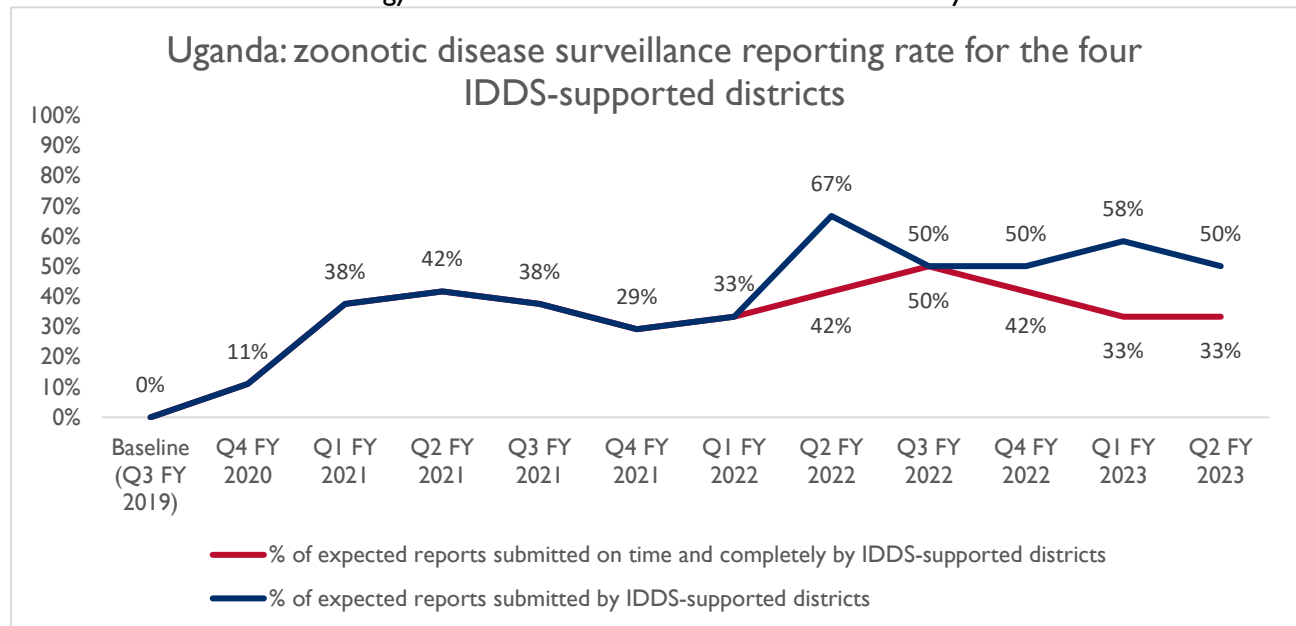
- Implementing partners should engage early and often with government ministries and other implementing partners when conceptualizing interventions and developing work plans to avoid overlapping interventions.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

In FY 2022 Q2, IDDS started supporting four districts to improve zoonotic disease surveillance by piloting an Excel-based data entry and analysis tool. This pilot resulted in an increase in reporting rates that quarter and also facilitated tracking of timeliness of report submission, demonstrating the benefits of such a tool. Subsequent trainings on data analysis and district-level data review meetings organized by IDDS helped sustain some of the gains in reporting rates. The formal roll-out of the Excel tool is pending decisions by the Infectious Diseases Institute and the Ministry of Agriculture, Animal Industry and Fisheries on what technology to use for the zoonotic disease surveillance system.



VIETNAM

Quarterly Highlights

Diagnostic Highlights:

- IDDS showcased pilot SRS preliminary data at the Epi-Labnet workshop organized by the Department of Animal Health (DAH) and sponsored by USAID. The leaders of DAH and Regional Animal Health Offices were impressed by the pilot preliminary data, and as a result, many of them requested an expansion of the SRS project to provinces beyond Binh Dinh, Dong Thap, and Thai Nguyen.

Surveillance Highlights:

- IDDS developed and disseminated the user guide for utilizing the VAHIS mobile application, which includes a concise interactive video for users, with detailed step-by-step instructions and images. The guidelines and the instructional video are expected to reduce the need for technical assistance from the app developer and IDDS.

Problems Encountered and Solutions

Problem	Resolution	Status
Despite closely collaborating with key government stakeholders to prepare and submit the required documents for government project approval, IDDS has been facing time-consuming processes in obtaining approvals from MoH and the Ministry of Agriculture and Rural Development. This is because these ministries need to obtain comments and feedback from numerous other relevant ministries and departments and satisfactorily address them before making final approval decisions.	IDDS maintains regular communication with National Institute of Hygiene and Epidemiology in the human health sector and DAH in the animal health sector to update project approval information and address any comments or questions raised by the ministries and departments.	In progress

Lessons Learned

- Conducting regular meetings with stakeholders at the provincial level (sub-departments of animal health) will encourage consistent data entry into VAHIS and enable the review and correction of any issues that arise during data entry, such as missing or inaccurate data.

FY 2023 Q2 Output Results

5



TWG meetings held

SRS (2)
Electronic reporting system (3)

4



Pilots conducted

SRS (2)
Electronic reporting system (2)

2



Assessments completed

SRS (1)
Electronic reporting system (1)

55



People mentored

Electronic reporting system

65



Events reported into VAHIS database

Integrated Disease Surveillance and Response FY 2023 Q2 Achievements

IDDS implements IDSR activities in Cameroon, Senegal, and Uganda, funded by the USAID Bureau for Africa. An amended work plan extending the period of performance to June 30 was approved by USAID in Washington on March 21.

Quarterly Highlights

Success Story:

- IDDS Builds Capacity to Implement Integrated Disease Surveillance and Response in Buikwe District

Surveillance Highlights:

- To support Cameroon's efforts to build workforce capacity for disease surveillance, IDDS provided technical and financial support to the Regional Center for Epidemic Prevention and Control of the Southwest Region of Cameroon to conduct a three-month regional IDSR mentoring and coaching pilot program. During FY 2023 Q2, 10 monthly data review meetings were held at the regional level.
- To equip health workers in Uganda to monitor and respond to infectious disease events, IDDS supported the rollout of the third edition of IDSR technical guidelines to 109 frontline health workers and veterinary staff in Buikwe District. IDDS also conducted supportive supervision in 16 health facilities (25 percent of the 65 health facilities), in collaboration with representatives from MoH and the Buikwe District Health Office.

Problems Encountered and Solutions

Problem	Resolution	Status
An ongoing strike in Bakel District, Senegal, has led to delays in scheduling a training.	IDDS is engaged in ongoing discussion with the chief regional medical officer to schedule a training after the strike ends.	In progress

Lessons Learned

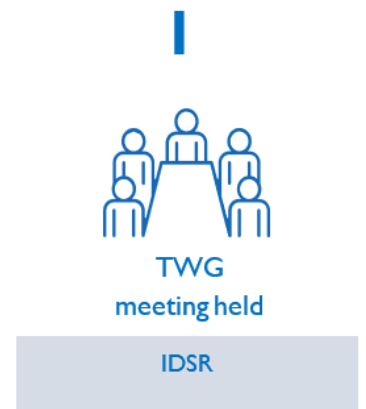
Post-training support to health facilities is critical to transforming the knowledge acquired into sustained action, because it provides monitoring and reinforces IDSR implementation. By ensuring dissemination of guidelines to other health workers who did not participate in the training, IDDS ensures that there are opportunities for continuous professional development sessions in health facilities.

FY 2023 Q2 Output Results

Cameroon



Uganda



FY 2023 Q2 Outcome Results

- None to report.

President’s Malaria Initiative FY 2023 Q2 Achievements

In FY 2023 Q1, IDDS reviewed the work plan against the WHO midterm malaria program review results to ensure that it complements and supports the priority gaps in the country. Based on discussions with CNM, WHO, and the USAID mission, IDDS revised the work plan to add the request to include technical assistance to improve subnational capacity in microscopy and help CNM increase PCR capacity at the subnational level. The revised work plan was approved by USAID on February 23.

Quarterly Highlights

Diagnostic Highlights:

- None to report.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

- None to report.

FY 2023 Q2 Output Results

- None to report.

Tuberculosis FY 2023 Q2 Achievements

CORE TB

Quarterly Highlights

Diagnostic Highlights:

- To inform laboratory management and operational planning for placement of new diagnostic equipment, IDDS supported TB DNAs in DRC, Malawi, Pakistan, and South Africa, and TB laboratory network spatial analyses in Ethiopia, Malawi, Tanzania, and Zimbabwe. IDDS participated in and provided financial and logistical support for DNA self-assessments and site verification visits in Malawi (January 23–26), DRC (January 25–February 3), Pakistan (January 22–February 9), and South Africa (February 27–March 9).
- IDDS supported access to high-quality, rapid molecular detection of TB and DR-TB by training laboratory staff in DRC, Kenya, Nigeria, and Tanzania on Truenat. IDDS also visited Truenat sites in Bangladesh and DRC to gain a first-hand understanding of challenges in Truenat implementation and provide supportive supervision to end users. Based on the information collected in DRC, IDDS developed an end user training curriculum and assessment, and a procurement plan for ancillary supplies to improve performance.
- To ensure the validity and accuracy of laboratory results, IDDS supported Truenat sites in iNTP countries to complete EQA and report their results. All participating countries, except for the Philippines, have completed three cycles of EQA. From countries that have received their results, the average scores for the three cycles were 90.8 percent, 86.8 percent, and 90.4 percent. Some countries performed consistently well on all three cycles, and others faced significant challenges, which were documented by IDDS through debriefing meetings, site visits, and review workshops and addressed through refresher trainings.
- To accelerate detection of childhood TB, IDDS is piloting stool-based testing at health facilities in DRC, Malawi, and Zimbabwe. This quarter, IDDS hosted a virtual webinar to present preliminary findings and lessons learned from the DRC pilot and conducted a monitoring visit to determine next steps and plan expansion of stool-based TB testing beyond Kinshasa. In Cambodia and Mozambique, IDDS initiated hybrid trainings on the SOS method and sponsored two officials from each NTP to attend the regional SOS training in Kampala, Uganda, to gain practical experience. IDDS participated in and provided technical assistance to this regional SOS method training in Uganda. In Zimbabwe, IDDS supported two regional trainings for clinical and laboratory staff, who will in turn train others.
- To improve the detection of pre-XDR TB, IDDS installed three GeneXpert 10-color instruments at sites in Cambodia and three at sites in Malawi. The project conducted a centralized training on the use of Xpert MTB/XDR assay for 15 laboratory staff in Cambodia and 32 laboratory and clinical staff in Malawi. Finally, IDDS developed an Xpert MTB/XDR assay super-user training package that includes a draft agenda, scope of work, supervisory visit checklist, and nine training modules, and collaborated with Cepheid to deliver Xpert MTB/XDR panels to support NTPs in Cambodia, Malawi, and Zimbabwe to validate the new test system.
- To advance understanding of TB diagnostics and management, IDDS completed data collection, report writing, and validation of the Bacc-TB study conducted in DRC.

- IDDS is supporting NTRL and three RTRLs in Pakistan to obtain ISO 15189 accreditation to boost the availability of high-quality TB and DR-TB diagnostics in the country. IDDS completed training on the last of the 12 modules of the QMS for 50 laboratory staff at 4 supported laboratories in Pakistan. IDDS also provided remote support to the laboratories to conduct internal vertical audits and review finding reports.

Core TB activities are also referenced in the individual country highlights where the work took place, including those for Kenya, Nigeria, and Pakistan.

Problems Encountered and Solutions

Problem	Resolution	Status
Poor Truenat EQA performance was observed in DRC.	IDDS visited Truenat sites, debriefed with super-users, and developed training materials to address challenges and implement solutions.	In progress
Newly installed 10-color GeneXpert instruments at the three laboratories in Malawi are unable to connect to the GxAlert and Aspect platforms, because the country TB health information system was not ready to support the new data formats.	IDDS is working with NTP and the TB local organization network partner to resolve connectivity issues. A paper-based solution to collect data is being used in the short term. In the future, site assessments prior to installation of these instruments will include ensuring that connectivity platforms are able to collect data from new diagnostic technologies and feed into the national health information system.	In progress

Lessons Learned

- Super-user debriefing workshops in DRC and Kenya were key to understanding challenges with Truenat implementation and developing action plans to improve performance of the sites on EQA.
- Country teams need clarity on customs clearing processes prior to placement of orders for GeneXpert or Truenat instruments. Limited awareness of processes led to delays in clearing the customs processes, although close collaboration with both USAID mission and NTP staff can speed up these processes.

FY 2023 Q2 Output Results

134



People trained

Truenat (88)
GeneXpert 10-color instruments (46)

2



SOPs, plans, and guidelines developed

Pediatric TB (1)
GeneXpert 10-color instruments (1)

67



Supportive supervision visits

Truenat (65)
Testing skills and procedures (2)

1



Technical presentation

Truenat

12



People mentored

QMS

Bangladesh

Quarterly Highlights

Diagnostic Highlights:

- To maintain access to diagnostic testing for TB and ensure uninterrupted laboratory services, IDDS trained seven staff from the Khulna RTRL on preventive maintenance of TB equipment. This training improved the routine maintenance practice by the laboratory staff, as reflected in the maintenance log sheet.
- To improve the capacity of NTP to manage the diagnostic network, IDDS developed, validated, and finalized a monitoring and supervision checklist for Truenat, in collaboration with NTP. IDDS also supported joint monitoring visits to all 38 Truenat sites by staff from the NTP Monitoring Unit, NTRL, and RTRLs to develop their monitoring and supervision capacity using the checklist.
- To improve the detection of TB, especially among children, IDDS delivered a training on testing extrapulmonary TB specimens and stool for childhood TB for nine Chattogram RTRL staff.
- Bangladesh received the results for the GeneXpert EQA program, with 90 percent of the 50 participating sites achieving “distinction performance” (scored 100/100), 8 percent earning a passing score (85–90/100), and only 2 percent, or a single site, falling short of the performance threshold (85/100).
- All 38 Truenat sites, supported by IDDS, are functional and made significant contributions to increasing the molecular detection of TB at the peripheral level. From July 2022 to March 2023, Truenat sites reported testing 46,675 presumptive TB patients, with detection of 3,375 TB cases, including 49 RIF-resistant TB cases.
- IDDS developed the SOP, algorithm, and recording and reporting template for Xpert MTB/XDR. This achievement is a significant step to enable NTP to implement technologies to detect DR-TB.

Problems Encountered and Solutions

Problem	Resolution	Status
A supply shortage of Xpert cartridges is undermining the project’s effort to increase utilization of laboratory services provided by selected sites.	NTP has taken urgent action to procure Xpert cartridges to improve the supply situation. However, the shortage continues because Cepheid is unable to meet the demand.	In progress

Lessons Learned

- Routine follow-up is very important to ensure that the recommendations provided during the monitoring and supervision visit have been properly acted on. Truenat is a new tool introduced by IDDS for detection of TB at the peripheral level, and the laboratory staff operating Truenat at this level have additional responsibilities and a full workload. Recommendations provided during a field visit should be repeated during remote supervision and assistance, to help laboratory staff take corrective actions and improve their ability and performance.

FY 2023 Q2 Output Results

16



People trained

Equipment maintenance (7)
Pediatric TB (9)

1



Guideline developed

QMS

1



TWG
meeting held

Testing skills and procedures

7

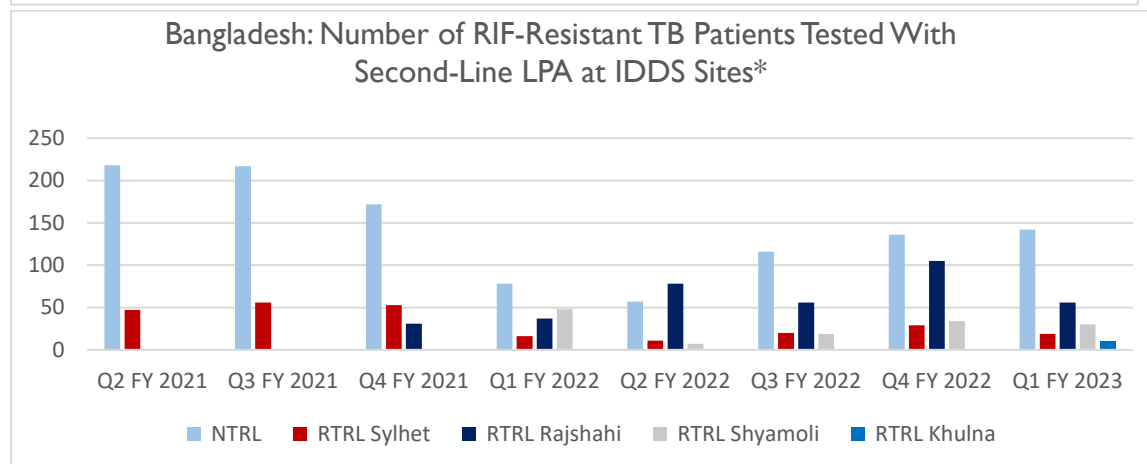
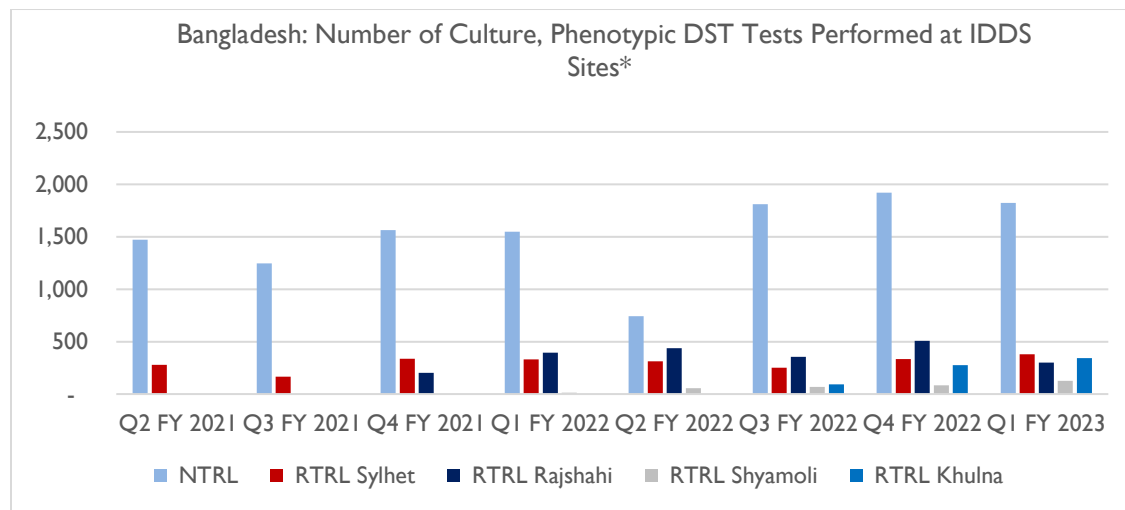


Supportive
supervision visits

Testing skills and procedures

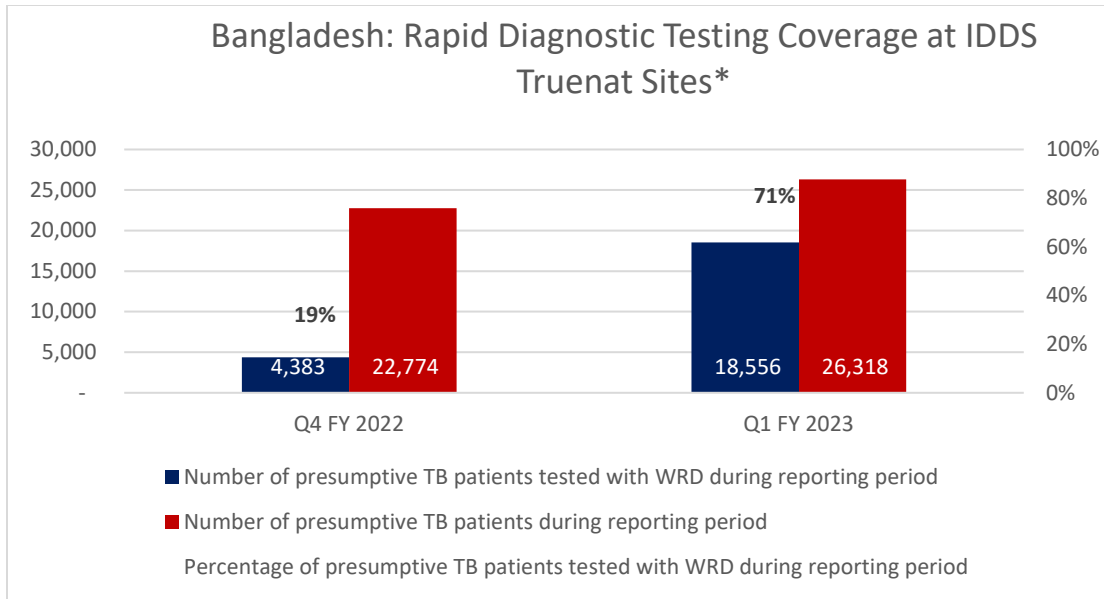
FY 2023 Q2 Outcome Results

Outcome data are provided through FY 2023 Q1.



*IDDS sites in Bangladesh on the graphs above include one national and four regional referral hospitals.

The graphs above show the number of phenotypic DST and second-line LPA tests conducted in the five IDDS-supported laboratories in Bangladesh over time. IDDS supported the introduction of these tests in the regional laboratories to decentralize testing and improve access to second-line testing.



WRD=WHO-recommended rapid diagnostic test

*IDDS Truenat sites in Bangladesh include 38 peripheral sites located in Natore, Bogra, Dinajpur, Gaibandha, Sirajganj, Pabna, Rangpur, Nilphamari, Jamalpur, Tangail, Kishoreganj, and Netrokona districts.

After the rollout of Truenat instruments in peripheral-level laboratories, IDDS continues to work closely with the laboratory personnel performing the tests. At the second quarter after the Truenat rollout (FY 2023 Q1), there is already significant improvement in rapid diagnostic testing of new and relapse TB cases, from 19 percent in FY 2022 Q4 to 71 percent in FY 2023 Q1.

BURMA

A no-cost extension to the approved work plan, extending the period of performance from February 28, 2023, to September 30, 2023 was submitted to USAID on February 5.

Quarterly Highlights

Diagnostic Highlights:

- In FY 2023 Q2, IDDS was able to resume direct technical assistance to NTP and NTRL and begin the process to renew a memorandum of understanding between MoH and IDDS. IDDS and MoH reached consensus on a list of prioritized activities to continue implementing during the renewal process, which may take up to six months.
- To inform management of the TB diagnostic network, IDDS supported WHO and NTP to develop a spatial analysis report about the functionality of TB diagnosis and treatment facilities. Building on that work, IDDS is now supporting NTP and the United Nations Office for Project Services to assess facilities that offer CXRs and GeneXpert testing to inform the implementation of the new diagnostic algorithm, called the “Double X strategy.”
- To streamline the diagnosis and treatment of TB patients and centralize records at NTRL, IDDS developed a workflow for the electronic LIMS, including a system design for the software development.

Problems Encountered and Solutions

Problem	Resolution	Status
On October 28, the State Administration Council enacted a new organization registration law (known as the NGO law), which includes more severe punishments for any breach of the law. As a result, most partners are struggling to renew the organization registration or memorandum of understanding.	IDDS is taking careful steps to provide advocacy and technical assistance, since the memorandum of understanding renewal process is still ongoing. With engagement at the community and regional levels, some technical assistance activities are being carried out. However, some deliverables have been negatively impacted or delayed because activities can only be resumed after NTP’s official approval.	In progress
The new MoH and NTP leadership has imposed strict and unpredictable instructions on TB implementing partners. For example, NTP asked the Myanmar Anti-TB Association, IDDS’s main implementing partner, to stop its field activities in October 2022 due to some pitfalls in their registration process.	IDDS is following up with the Myanmar Anti-TB Association about their registration process so the risk and timeline of activities can be determined. IDDS may consider alternative partnership strategies if the situation poses a threat to the successful execution of IDDS activities.	In progress

Problem	Resolution	Status
The new central NTP leadership opinion on private-sector engagement does not favor direct and indirect support to the private, for-profit sector, even though NTP recognizes the private-for-profit sector's role in finding missing TB cases. This directly affects IDDS work because the amended work plan included support to the private sector.	As part of the advocacy process, IDDS convinced NTP to engage with the private-for-profit sector, in which there may be both under-reporting and under-diagnosis of TB cases. IDDS will continue to highlight the importance of private-sector engagement and mandatory case notification in upcoming communications with NTP.	In progress
NTP is reluctant to adopt new TB diagnostic modalities, such as community strengthening, and is reluctant to adopt new diagnostic tools.	As a member of the TB Laboratory TWG, IDDS is engaging with NTRL and technical partners to overcome these challenges. IDDS will continue to provide technical assistance to strengthen advocacy by the TWG.	In progress
IDDS encountered unexpected delays in procurement due to a policy change notice from the Central Bank of Myanmar to control foreign currency.	IDDS discussed how to overcome this challenge with suppliers while maintaining a high level of compliance and emphasizing the project's timeline. After some delay and extensive negotiations with suppliers, IDDS has successfully procured priority diagnostics materials, such as ultraportable CXR instruments, artificial intelligence boxes, Truenat instruments, and GeneXpert instruments.	Resolved

Lessons Learned

- Continuous engagement with MoH and NTP:** As instructed by MoH and NTP, IDDS had to temporarily stop or amend implementation of some project activities due to disagreements between NTP and MoH on how best to address diagnostic network gaps in the country. IDDS now understands the importance of continuous engagement with MoH and NTP when developing activities to avoid unexpected decision-making and lengthy approval processes from MoH and NTP.
- Planning and executing activities in a hostile situation:** Even though NTP aims to find missing TB cases in the community, the organization is struggling amid instructions by the State Administration Council regarding dealing with foreign aid. After NTP's instruction to stop activities of some non-governmental organizations in October 2022, IDDS has requested NTP's approval to continue prioritized activities since November 2022, which is necessary for procurements related to activities. For IDDS, international procurement of diagnosis tools (GeneXpert instruments, Truenat tests, ultra-portable X-ray instruments, computer-aided detection boxes, etc.) is complete, and equipment are being safely stored. When there are unexpected delays in approval processes, organizations face an additional burden to justify the procurement to donors and to deploy the equipment in time.

FY 2023 Q2 Output Results

2



SOPs and plans developed

Testing skills and procedures (1)
QMS (1)

FY 2023 Q2 Outcome Results

- None to report.

CAMBODIA

IDDS submitted the Cambodia FY 2023 TB work plan to USAID on December 17, 2022. The work plan was approved with contingencies on March 28, 2023.

Quarterly Highlights

Success Story:

- From Paper to Digital Reporting of TB Data: IDDS Establishes DataToCare in Cambodia

Diagnostic Highlights:

- IDDS (with Core TB funds) successfully installed 3 GeneXpert 10-color instruments and trained 14 laboratory staff (5 female) on use of the Xpert MTB/XDR assay. This will increase access to and timeliness of DR-TB testing. To support improved access to DST for TB in Cambodia, IDDS also collaborated with Cepheid to procure and deliver XDR validation panels produced by SmartSpot Quality, which will allow independent verification of the validity of laboratory results.
- To improve access to TB test results, IDDS coordinated with Savics and MekongNet to establish a new capability for SMS notification of test results to providers and patients through the country's diagnostic connectivity software (DTC). This will allow clinicians to rapidly place patients on appropriate TB treatments, which will stop the spread of TB in the community. IDDS is also working with Savics and Molbio Diagnostics to establish connectivity between Truenat instruments and DTC, by testing connectivity with two Truenat instruments. (Currently, DTC connects GeneXpert instruments across 88 sites, with potential expansion to 20 more, but does not yet connect Truenat instruments to the central repository for data management.)
- To accelerate detection of TB among children, IDDS finalized the detailed implementation plan, algorithm, training curriculum, SOPs, and materials for implementation of stool testing for TB. After IDDS conducts the training on the SOS method for stool testing in FY 2023 Q3, referral hospitals and health centers that utilize the new method will be well on their way to increasing their notifications of TB cases among children that would have otherwise gone undetected.

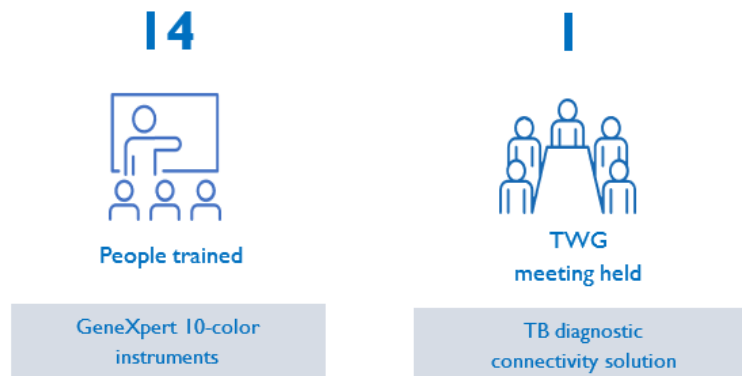
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

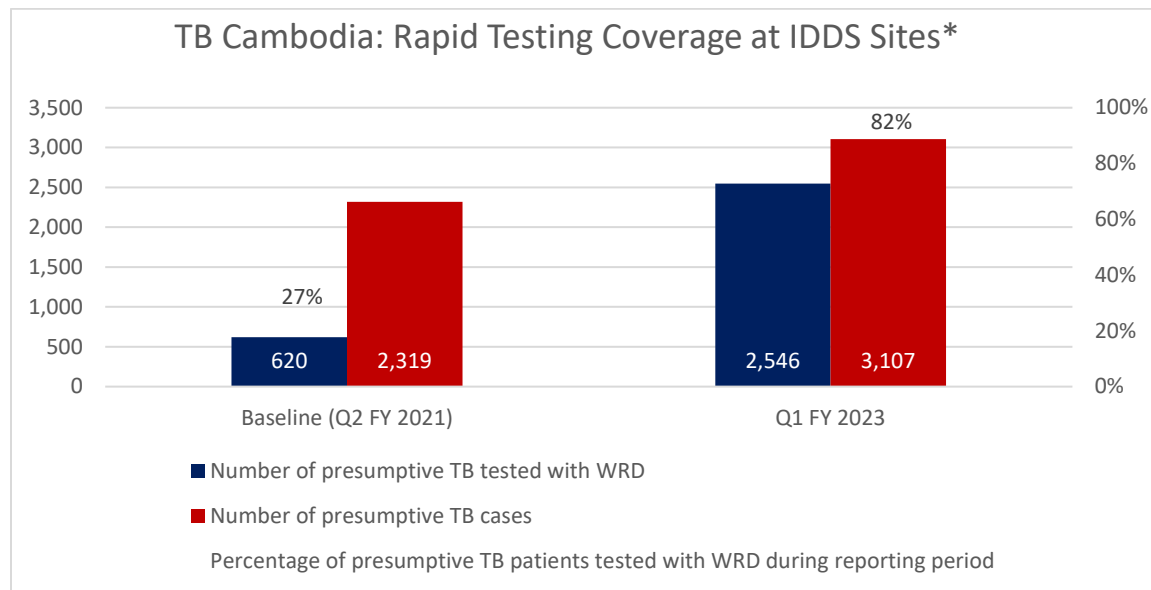
- None to report.

FY 2023 Q2 Output Results



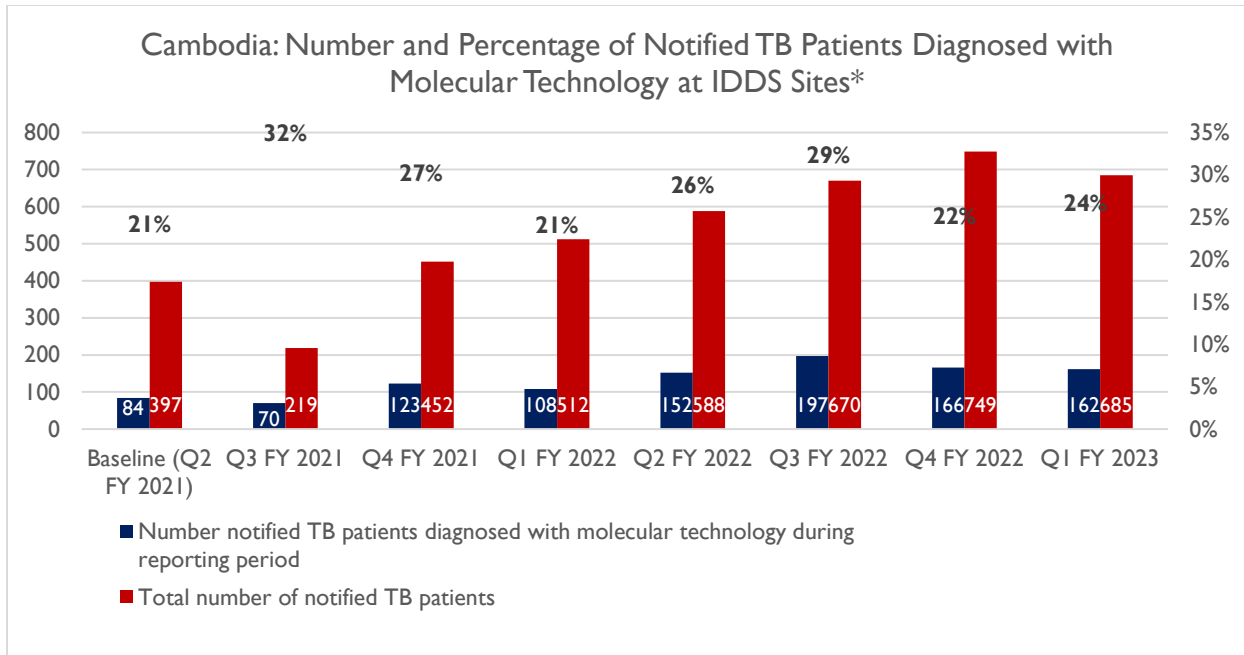
FY 2023 Q2 Outcome Results

Outcome data are provided through FY 2023 Q1.

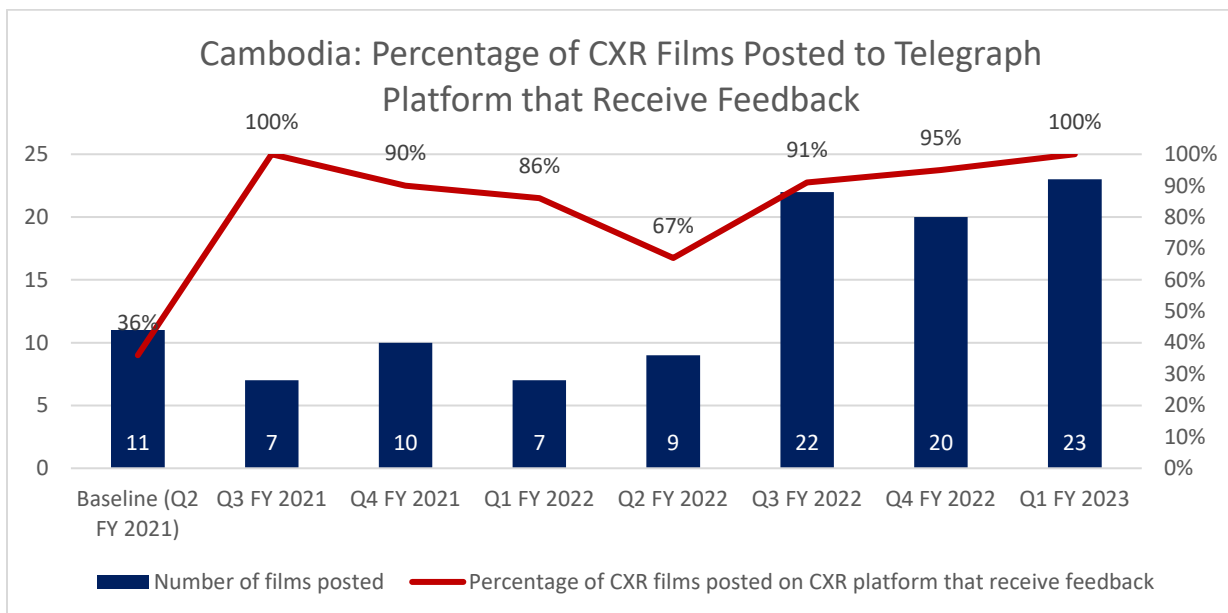


WRD=WHO-recommended rapid diagnostic test

*IDDS sites in the graph above include 19 facilities in Community Mobilization Initiatives to End Tuberculosis (COMMIT)-supported geographies. IDDS improved access to rapid diagnostic testing for TB: rapid diagnostic coverage increased from 27 percent at baseline (FY 2021 Q2) to 82 percent in FY 2023 Q1.



*IDDS sites in the graph above include 19 COMMIT-supported facilities in COMMIT-supported geographies.



IDDS works in Cambodia to improve CXR reading and interpretation by clinicians conducting clinical assessment. The graph above shows the percentage of CXR films that received feedback and demonstrated continuous improvement, from 36 percent at baseline in FY 2021 Q2 to 100 percent in FY 2023 Q1.

DEMOCRATIC REPUBLIC OF THE CONGO

IDDS submitted the DRC FY 2023 TB work plan to USAID on November 18, 2022. As of March 31, the approval was still pending.

Quarterly Highlights

Success Stories:

- “A Better Way Forward”: Using Stool Specimens to Detect Pediatric TB in DRC
- Assessing the Tuberculosis Diagnostic Network in the Democratic Republic of the Congo
- DRC Studies the Causes of Stagnation of Bacc-TB
- The Revitalization of TB Screening Activities Using Truenat at DRC’s Mupanja Hospital

Diagnostic Highlights:

- To inform management of the diagnostic network and placement of new diagnostic equipment, IDDS completed a TB DNA in DRC, which included 111 site verification visits in January and February. Findings of the TB DNA will provide NTP with evidence-based interventions to improve access to the TB diagnostic network and increase detection of TB and DR-TB. The DNA was completed with Core TB funds.
- IDDS supported the development of strategic priorities for NTP, through the validation of NTRL's new strategic plan in March. The strategic plan was developed with IDDS support during previous quarters. IDDS also supported the revision of the NTP/NTRL supervisory manual and checklists to improve supportive supervision to intermediate-level laboratories.
- IDDS is building capacity for TB detection at NTRL and improving biosafety and biosecurity, by providing a new incinerator for waste management and high-speed Internet to support the logistics management information system. In FY 2023 Q3, IDDS plans to install the incinerator, prepare the space, and provide training to the staff responsible for waste management.

Problems Encountered and Solutions

Problem	Resolution	Status
Additional requests for IDDS support from NTP for the three reference laboratories are pending approval of the FY 2023 work plan and budget.		In progress

Lessons Learned

- The TB-NET tool made it possible to conduct an in-depth analysis of the TB laboratory network, which led to a recommendation by the NTP director to customize the tool for the local context and expand its use to the entire TB control program, including areas such as monitoring and evaluation, administration, and finance.
- Zoom is a better communication tool for real-time language translation/interpretation, with a higher quality of translation and transcription than Microsoft Teams.

FY 2023 Q2 Output Results

1



Guideline developed

QMS

FY 2023 Q2 Outcome Results

- None to report.

INDIA

An amended work plan extending the period of performance to May 2024 and revising activities was submitted to USAID on November 29, 2022. As of March 31, the work plan was still pending approval.

Quarterly Highlights

Success Story:

- Private-sector Model for TB Diagnosis in India's Hisar District is Delivering Results

Diagnostic Highlights:

- IDDS completed the mid-course assessment of the "one-stop TB/DR-TB diagnostic model" to evaluate the impact of this intervention to engage the private sector in the TB diagnostic network. The mid-course assessment and lessons learned will inform expansion of the model to other states and districts and allow partners to improve the diagnostic and operational efficiencies demonstrated through using existing public resources.
- An article on the outcome of phase I of the Trueprep-extracted deoxyribonucleic acid feasibility study was accepted by the peer-reviewed *International Journal of Tuberculosis and Lung Disease*. This article established the evidence for the utility of Trueprep-extracted material for LPA testing, which would result in a shorter turnaround time for issuing LPA test results, decrease the workload of staff at reference laboratories, and facilitate earlier treatment for TB patients.

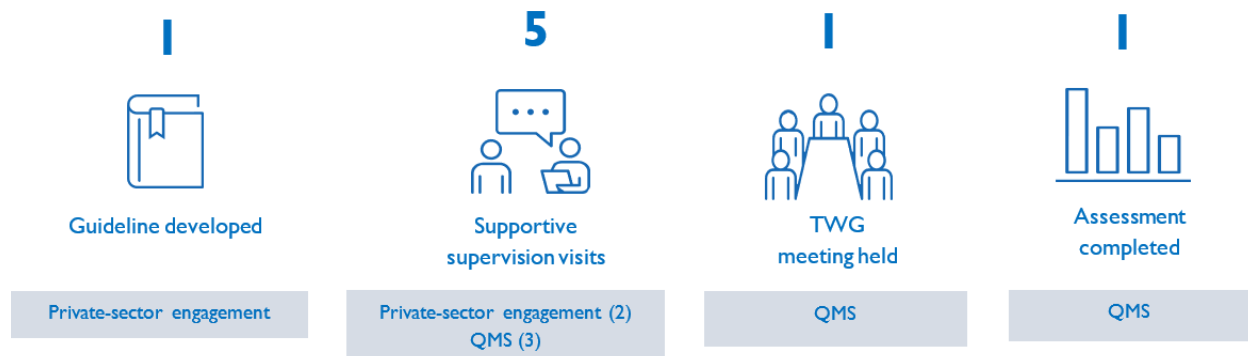
Problems Encountered and Solutions

Problem	Resolution	Status
The lengthy approval process at CTD delayed the finalization of various documents.	IDDS is following up and providing regular reminders to push the document finalization and approval.	In progress
There is a delay in the transition of the Hisar model to District NTEP because minor infrastructure modifications are required to deploy nucleic acid amplification testing instruments and process specimens.	IDDS continued to coordinate activities, including budget approvals and infrastructure modifications, with the State and District NTEP to complete the model transition within revised timelines.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

- None to report.

KENYA

Quarterly Highlights

Diagnostic Highlights:

- To build the capacity of laboratory staff to use new diagnostic technology, IDDS conducted a Truenat super-user review workshop with 65 participants from NTP and NTRL, among other organizations. During the workshop, IDDS provided on-site training as well as technical support and strengthening of the QMSs, including introducing SOPs and job aids, which resulted in improvement of EQA scores. Super-users developed action plans for continual quality improvement.

All IDDS activities related to TB in Kenya are supported with Core TB funds.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- The super-user debriefing workshop was key to better understanding challenges with Truenat implementation and developing action plans to improve performance of the sites.

FY 2023 Q2 Output Results

- None to report.

FY 2023 Q2 Outcome Results

- None to report.

MALAWI

Quarterly Highlights

Success Stories:

- Malawi: Uncovering Opportunities to Improve TB Detection
- Stool-based TB Testing Pilot Contributing to Improved Childhood TB Detection in Malawi

Diagnostic Highlights:

- To inform management of the diagnostic network and placement of new diagnostic equipment, IDDS completed a TB DNA in Malawi, which included 133 site verification visits in January 2023. Findings of the TB DNA will provide the National TB and Leprosy Elimination Program with evidence-based interventions to improve access, capacity, and quality of the TB diagnostic network to increase the detection of TB and MDR-TB. The DNA was completed with Core TB and field funds.
- With Core TB funds, IDDS installed three I0-color GeneXpert instruments in three district-level hospitals in Bwaila, Chikwawa, and Mangochi districts. Of the 93 Xpert MTB/XDR assays run at pilot sites in the first month, laboratories detected 1 specimen with isoniazid (INH) and RIF resistance, 1 with INH mono-resistance, and 1 with fluoroquinolone resistance. The I0-color GeneXpert instruments will contribute to increased access to rapid testing for resistance to essential TB medicines, such as INH and fluoroquinolone.
- The revised TB diagnostic algorithm developed with IDDS support was incorporated into the TB national guidelines.

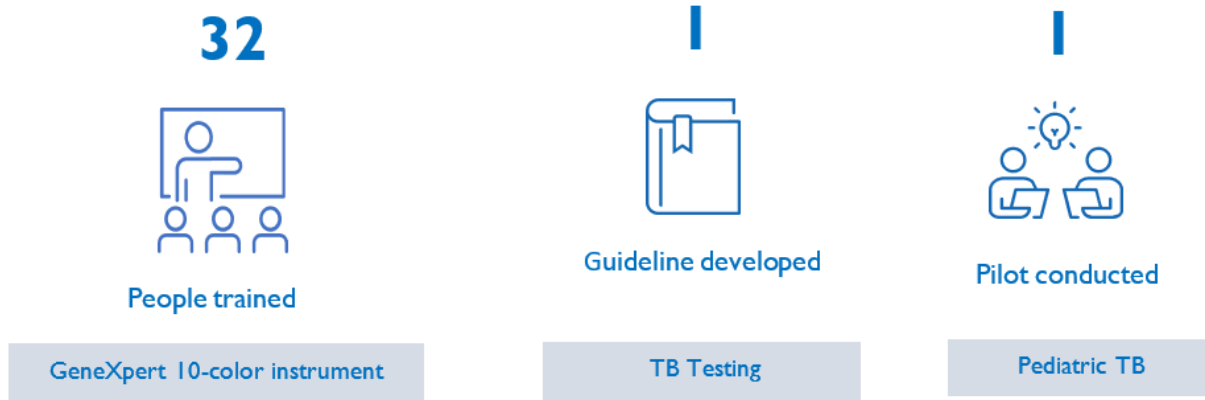
Problems Encountered and Solutions

Problem	Resolution	Status
Delays in procurement of the lead doors and lead-lined window for the X-ray refurbishment work at Ekwendeni Mission Hospital were the result of limited supply in country.	A vendor based in Malawi was identified who could facilitate procurement of these supplies.	In progress

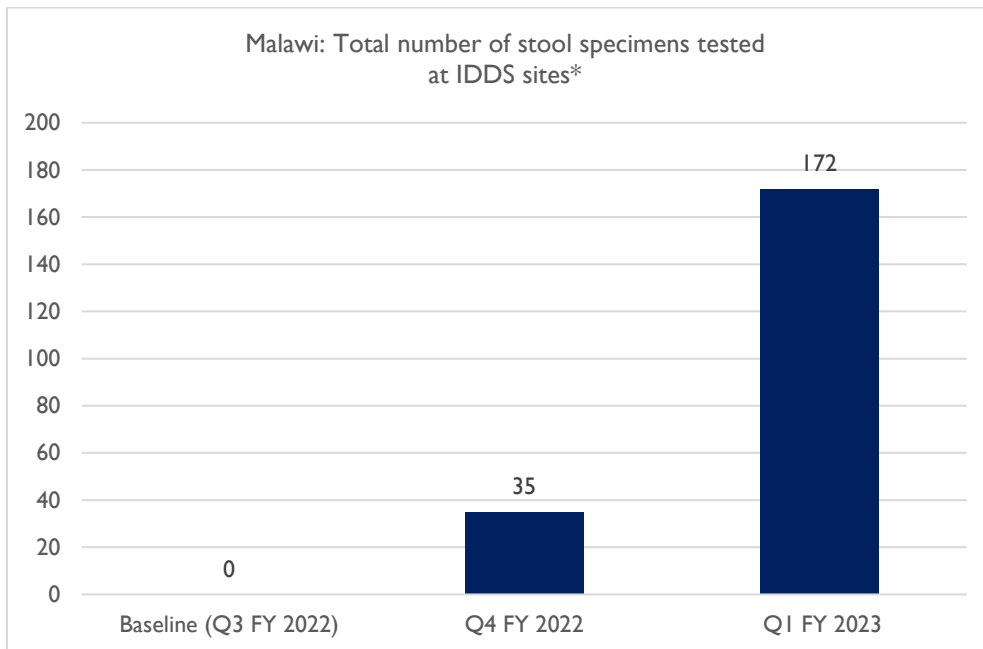
Lessons Learned

- For future installations of I0-color GeneXpert instruments, the focal person for GxAlert connectivity should also be involved during the preparations and the actual installations to ensure availability of test data for reporting.
- When conducting a DNA and scheduling facilities or sites to be visited, assessors need to consider the distances between facilities to ensure quality in the data collection process. Further, incorporating the additional checklists for the DNA verification visits into SurveyCTO and not using paper-based tools in the field may improve data capturing efficiency and reduce redundancies of double data entry.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results



*IDDS sites in the graph above include eight stool specimen testing sites, including central hospitals, district hospitals, community hospitals, and mission hospitals. IDDS works to expand and institutionalize stool specimen collection, processing, and testing for pediatric TB and therefore contributed to the increase in stool specimen testing at these sites.

MOZAMBIQUE

Quarterly Highlights

- To accelerate the detection of TB among children, IDDS supported the design and finalization of the national guideline for the implementation of the SOS stool processing method and the Xpert MTB/RIF (Ultra) test for pediatric TB diagnosis. The national guideline, which includes SOPs and a diagnostic algorithm, will guide health facilities to improve the collection and processing of stool specimens for pediatric TB diagnosis. IDDS also supported the participation of two master trainers from NTP at a regional SOS training conducted by the Uganda Supranational Reference Laboratory in Kampala, Uganda.
- To assess and improve the quality of laboratory services, IDDS and focal points from the Clinical Laboratory Division, the TB Reference Laboratory, and Provincial Health Services visited two laboratories: Carmelo TB laboratory, located in Chokwé (Gaza province), and Manhiça Health Research Center's TB laboratory, located in Manhiça (Maputo province). The visit aimed to assess the laboratories' capacity to perform TB culture, DST, and LPA. The team assessed available human resources (in terms of number of staff and status of training), equipment, and infrastructure.

Problems Encountered and Solutions

Problem	Resolution	Status
It was a challenge to balance MoH requests against the project's approved work plan, timeline, and budget.	IDDS reviewed all activities to prioritize appropriately and continued negotiations with MoH to redefine timelines as needed.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

1

Guideline developed

Pediatric TB

2

Supportive
supervision visits

Testing skills and procedures

FY 2023 Q2 Outcome Results

- None to report.

NIGERIA

Quarterly Highlights

Diagnostic Highlights:

- To build capacity of laboratory staff to use new diagnostic technology, IDDS trained 38 super-users on Truenat MTB/RIF testing, in collaboration with the National TB, Leprosy and Buruli Ulcer Control Program, KNCV, the Institute of Human Virology Nigeria, and Molbio Diagnostics (Truenat's manufacturer).

All IDDS activities related to TB in Nigeria are supported with Core TB funds.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- Having additional Molbio trainers, securing teaching laboratories for practical sessions, and emphasizing good biosafety practices are some key aspects to improve in upcoming super-user trainings.

FY 2023 Q2 Output Results

38



People trained

Truenat

FY 2023 Q2 Outcome Results

- None to report.

PAKISTAN

Quarterly Highlights

Diagnostic Highlights:

- To improve the detection of DR-TB, IDDS developed a TB Drug Resistant Survey and sentinel site surveillance protocols for six identified sites (one health facility each from Lahore, Bahawalpur, Jamshoro, Peshawar, Quetta, and Islamabad Diagnostic Center Rawalpindi). To support the pilot sentinel site surveillance activity, IDDS procured 7,200 MTB/XDR cartridges from Cepheid and is currently recruiting 6 laboratory technicians for each of the sites.
- To inform the management of the diagnostic network and placement of new diagnostic equipment, IDDS completed a TB DNA in Pakistan. IDDS provided technical and logistical support for the TB DNA self-assessment workshop in Islamabad, in which Pakistan NTP officers used the TB-NET tool to evaluate the current status of TB diagnostic network (January 22–26). Following the self-assessment, IDDS participated in and provided logistical support to conduct 176 site verification visits in 9 regions (January 30–February 2), hold the assessment reporting workshop in Islamabad (February 5–7), and hold the stakeholders' meeting in Islamabad to disseminate the DNA findings (February 9). In March, a draft TB DNA report was shared with Pakistan NTP leadership for review and comments.
- To improve the capacity for managing the laboratory system and ensuring quality services, IDDS completed training on the last of the 12 modules of the QMS for 50 laboratory staff (12 female) at 4 supported laboratories in Pakistan (NTRL and the provincial reference laboratories in Sindh, Punjab, and Khyber Pakhtunkhwa). IDDS also conducted weekly QMS implementation calls with the four laboratories and provided remote support to the laboratories to conduct internal vertical audits and review reports.

All TB activities implemented by IDDS in Pakistan are supported with Core TB funds.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

12



People mentored

QMS

FY 2023 Q2 Outcome Results

- None to report.

TANZANIA

Quarterly Highlights

Diagnostic Highlights:

- In preparation for the installation of new Truenat technology at 30 sites, IDDS visited 27 of the sites to assess their readiness. With Core TB funding, IDDS trained 50 Truenat end users (15 female) from across the country. The rollout of Truenat as a diagnostic technology in Tanzania will improve access to rapid TB molecular diagnostics tests near the point of care.
- To monitor and improve real-time reporting of laboratory results, IDDS monitored the Aspect dashboard and investigated the reasons for any interruptions in reporting to GxAlert or Aspect. IDDS is also supporting the configuration of the 30 Truenat instruments to enable connectivity to Aspect after they are installed.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

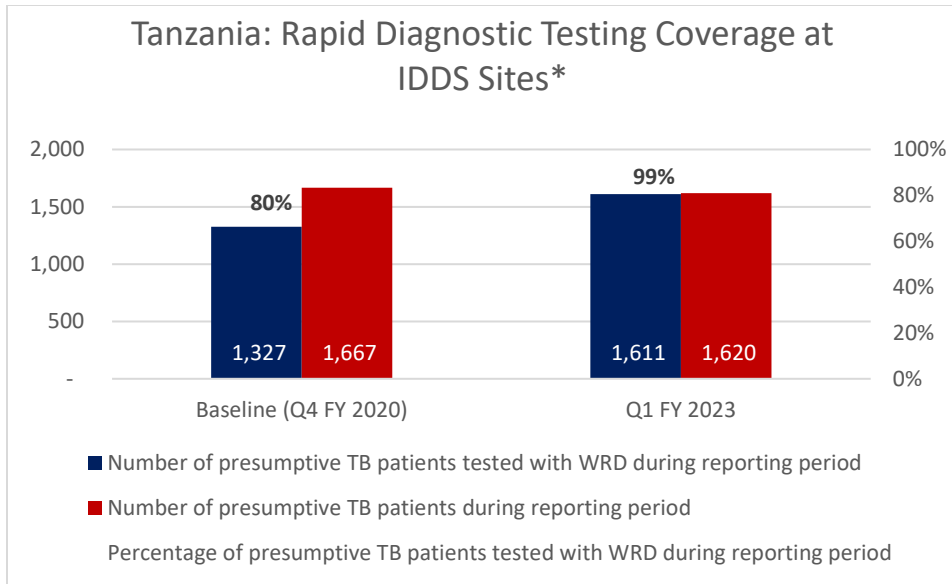
- None to report.

FY 2023 Q2 Output Results

- None to report.

FY 2023 Q2 Outcome Results

Outcome data are provided through FY 2023 Q1.



*IDDS sites include one national and four zonal laboratories.

IDDS works to optimize the use of all available rapid diagnostic tools, including GeneXpert and Truenat, for people with presumptive TB. The graph above shows increased testing of presumptive TB cases with rapid TB diagnostic tools, increasing the coverage from 80 percent at baseline in FY 2020 Q4 to 99 percent in FY 2023 Q1.

ZIMBABWE

An amended work plan extending the period of performance to May 2024 and revising activities was submitted to USAID on December 7, 2022. The revised work plan was approved with contingencies on March 17 and resubmitted to USAID on March 24.

Quarterly Highlights

Success Stories:

- IDDS Helps Launch New Website for the National Tuberculosis Reference Laboratory
- IDDS Supports Zimbabwe Laboratories to Improve Truenat Proficiency Testing Scores
- The Journey to Childhood TB Diagnosis using the Simple One-Step Method in Harare Province

Diagnostic Highlights:

- To ensure prompt reporting of laboratory results for TB tests, IDDS is working with SystemOne to connect the 20 Truenat instruments onto the Aspect system and has procured SIM cards, which are being installed. Results from the instruments will be transmitted to the clinicians in real time, thereby reducing turnaround times and improving patient care.
- IDDS supported the development of the Bulawayo NTRL website. Stakeholders are now able to learn about laboratory services through the website, request tests using online forms, and contact the laboratory at all times, thereby improving the quality of patient care.
- To increase the detection of TB among children, IDDS supported an SOS training in Harare province that reached 129 health care workers (88 female). A regional training-of-trainers workshop also took place on this topic, during which an IDDS facilitator participated in training clinicians and laboratorians on the pathophysiology and epidemiology of childhood TB, use of the SOS stool testing method for childhood pulmonary TB diagnosis, quality assurance, and data recording and reporting.

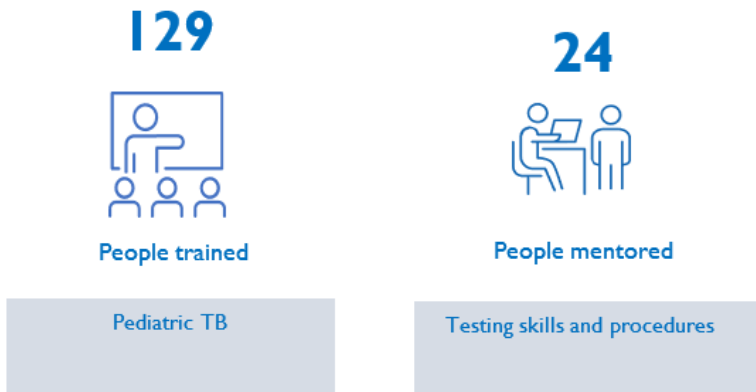
Problems Encountered and Solutions

Problem	Resolution	Status
There is low demand for pediatric TB stool testing at the 25 Harare pilot sites.	IDDS is building demand for the approach through stakeholder engagement and buy-in	In progress

Lessons Learned

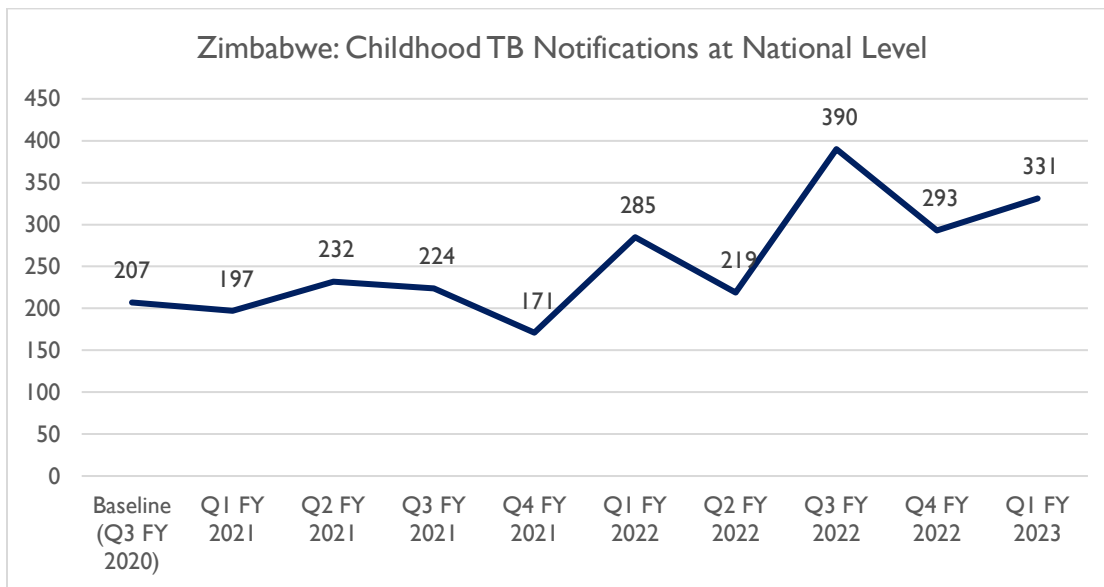
- None to report.

FY 2023 Q2 Output Results



FY 2023 Q2 Outcome Results

Outcome data are provided through FY 2023 Q1.



Middle East and North Africa FY 2023 Q2 Achievements

With funds from the USAID Bureau for the Middle East, IDDS has developed an assessment tool, based on the TB DNA, that will be piloted in MENA countries to assess the diagnostic network capacity and preparedness for emerging and reemerging disease threats.

Quarterly Highlights

Diagnostic Highlights:

- On March 22, IDDS received approval from the Tunisian MoH to conduct a DNA jointly with the World Bank. IDDS will begin preparations for the joint assessment, which will tentatively be conducted in late FY 2023 Q3.

Problems Encountered and Solutions

Problem	Resolution	Status
Ongoing security concerns will prevent IDDS from carrying out a second DNA in Yemen as initially planned.	IDDS is consulting with the USAID MENA Bureau about the possibility of providing technical assistance for a remote DNA in Yemen. If a remote assessment proves feasible, local Yemeni consultants will be invited to participate in the Tunisia assessment so they have adequate training to carry out an assessment in Yemen.	In progress

Lessons Learned

- None to report.

FY 2023 Q2 Output Results

- None to report.

FY 2023 Q2 Outcome Results

- None to report.

Annex A: Activity Implementation Progress

Annex B: Success/Highlight Stories

Annex C: Country Monitoring and Evaluation Tables