



Infectious Disease Detection and Surveillance (IDDS)

Quarterly Report

April 1, 2023–June 30, 2023



Transporting Ebola specimens for safe storage in the Democratic Republic of the Congo. Photo by IDDS

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Abbreviations

AMR	antimicrobial resistance
ARP	American Rescue Plan
AST	antimicrobial susceptibility testing
CBS	community-based surveillance
CDC	U.S. Centers for Disease Control and Prevention
C-DST	culture and drug susceptibility testing
CNM	National Center for Parasitology, Entomology and Malaria Control
COVID-19	coronavirus disease 2019
CTD	Central Tuberculosis Division
DAH	Department of Animal Health
DGSHP	General Directorate of Health and Public Hygiene
DNA	diagnostic network assessment
DoL	Directorate of Laboratories
DoP	Directorate of Prevention
DR	drug-resistant
DRC	Democratic Republic of the Congo
DST	drug susceptibility testing
DTC	DataToCare
EBS	event-based surveillance
EID	emerging infectious disease
EPHI	Ethiopian Public Health Institute
EQA	external quality assessment
EVD	Ebola virus disease
FY	fiscal year
GHS	Global Health Security
IBS	indicator-based surveillance
IDDS	Infectious Disease Detection and Surveillance
IDSR	Integrated Disease Surveillance and Response
INRB	<i>Institut National de Recherche Biomédicale</i> (National Biomedical Research Institute)
INSP	<i>Institut National de Santé Publique</i> (National Institute of Public Health)
IR	intermediate result

IRL	intermediate reference laboratory
ISO	International Organization for Standardization
LIMS	laboratory information management system
LNSA	laboratory network spatial analysis
MDR	multidrug-resistant
MENA	Middle East and North Africa
MoH	ministry of health
MoHCC	Ministry of Health and Child Care
MTB	<i>Mycobacterium tuberculosis</i>
NADDEC	National Animal Disease Diagnostics and Epidemiology Center
NAP	national action plan
NASIC	National Antimicrobial Stewardship Interagency Committee
NCDC	National Center for Disease Control
NCVD	National Center for Veterinary Diagnosis
NIH	U.S. National Institutes of Health
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
RAHO	regional animal health office
RIF	rifampicin
RTRL	regional tuberculosis reference laboratory
SAP-CAR	State Action Plan on Containment of Antimicrobial Resistance
SDAH	sub-department of animal health
SIZE	<i>Sistem Informasi Zoonoses dan Emerging Infectious Diseases</i> (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
UNOPS	United Nations Office for Project Services
UPS	uninterruptible power supply
USAID	United States Agency for International Development
VAHIS	Vietnam Animal Health Information System
WHO	World Health Organization
WRD	World Health Organization-recommended rapid diagnostic
XDR	extensively drug-resistant

Program Overview

Summary Overview

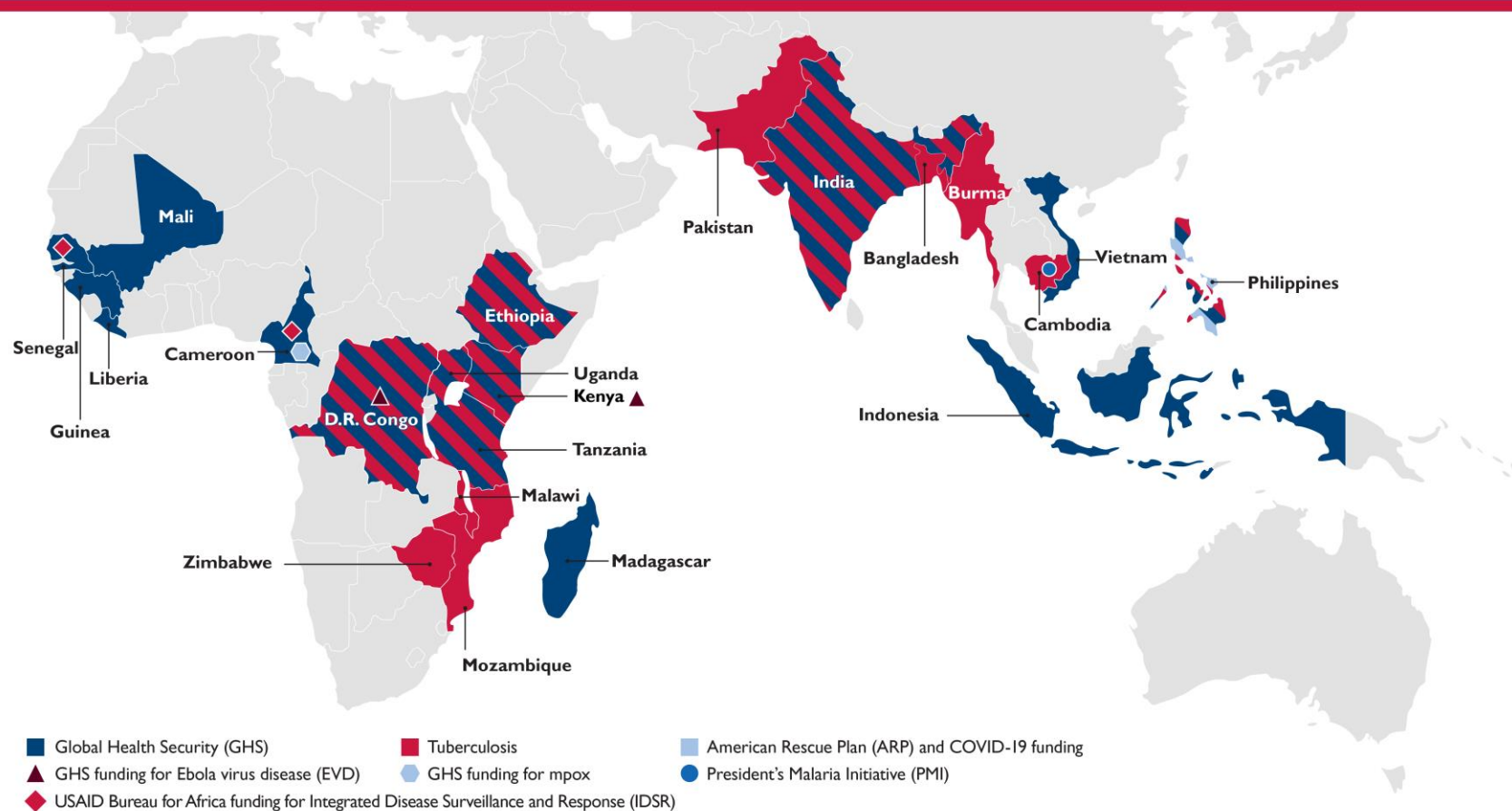
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Contract Number:	GS00Q14OADU119
Names of Partners:	PATH, FHI 360, African Society for Laboratory Medicine, Metabiota, Abt Associates, Gryphon Scientific, Association for Public Health Laboratories, Mérieux Foundation
Geographic Coverage:	<i>Countries:</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, Tanzania, Uganda, Vietnam, and Zimbabwe <i>Regions:</i> Middle East and North Africa
Reporting Period:	April 1, 2023–June 30, 2023

Program Description

The Infectious Disease Detection and Surveillance (IDDS) project is strengthening the capacity of 23 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 Q3

USAID INFECTIOUS DISEASE DETECTION AND SURVEILLANCE (IDDS) PROJECT WHERE WE WORK, FISCAL YEAR (FY) 2023 Q3



Quarterly Progress

FY 2023 Q3 Overall Achievements

This report summarizes activities that occurred during quarter 3 (Q3) of fiscal year (FY) 2023 and project year 5: April 1, 2023, through June 30, 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 1 country, 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 15 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 implemented 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 Q3, 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 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 Q3, 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; mapping laboratory network capacity; supporting implementation of quality management systems (QMSs) and preparing laboratories for accreditation; enhancing systems for specimen referral, transport, and reporting; and contributing directly to specimen transport activities.

IDDS supported the **development and dissemination of national-level policies**, including laboratory regulations, national action plans (NAPs), and standard operating procedures (SOPs) in eight countries. In **DRC**, IDDS completed the updated Outbreak Preparedness and Response Plan in collaboration with the Ministry of Health (MoH) Directorate of Epidemiologic Surveillance. The directorate will pilot the plan to address the increasing public health needs in the country, with a focus on preparedness and response activities in the country's eastern provinces. In **Ethiopia**, IDDS held a four-day workshop in collaboration with the Animal Health Institute to develop, review, and update laboratory quality documents, job aids, SOPs, guidelines, forms, and templates related to the detection of priority AMR pathogens. In **Guinea**, IDDS developed and updated 14 SOPs on bacteriology testing, quality assurance, and tools for equipment and stock management. In **India**, IDDS revised the second draft of the NAP on AMR 2.0 and submitted it to the National Centre for Disease Control (NCDC), which will convene a small group of stakeholders to finalize the document in FY 2023 Q4. The project also convened a meeting to support the development of the State Action Plan on Containment of AMR (SAP-CAR) in Sikkim and presented a first draft of the plan to the state's nodal officer for review. In **Kenya**, IDDS provided technical assistance to the National Microbiology Reference Laboratory to develop and review a bacteriology isolates biorepository SOP, which was adopted for use in April. The project also assisted the National Antimicrobial Stewardship Interagency Committee (NASIC) and AMR surveillance sites to update the SOP for the coagulase test and to develop an SOP on the procedure for slide agglutination for enteric pathogens. In **Liberia**, an IDDS-supported consultant interviewed 11 key informants on antimicrobial use and practices and submitted the first draft of the Integrated AMR Surveillance Strategy for Liberia. In **Tanzania**, IDDS provided financial and logistic assistance to 23 national staff (7 female) to participate in 2 AMR technical working group (TWG) meetings for operationalizing the newly approved NAP-AMR (2023–2028). In **Vietnam**, IDDS finalized three SOPs on specimen packaging, transport, and returning test results, and the project disseminated them to three Provincial Centers for Disease Control at pilot sites.

In **Mali**, IDDS helped **map laboratory capacity** by providing virtual technical and financial support for data collection in 5 regions (47 laboratories were mapped in total). IDDS then assisted the Directorate of Pharmacy and Medicines to verify and validate the data and upload the findings to an online platform.

In five countries, 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 Village Reach and the U.S. Centers for Disease Control and Prevention (CDC) to expand the SRS to all 33 health districts, by training 247 health care workers and union drivers (45 female) from 17 of the 33 health districts (staff from the remaining districts were trained by non-IDDS partners). With these partners, IDDS also provided SRS supportive supervision visits to 11 health districts to address issues that staff are facing during the SRS expansion. In **Kenya**, IDDS provided technical and logistic assistance for Bungoma County to convene a quarterly SRS TWG meeting, at which 37 participants (14 female) discussed setting targets for SRS indicators, appointing focal persons to coordinate SRS activities, educating clinicians in sub-county hospitals to sustain demand for bacteriology tests, and budgeting for SRS operations at the county level. In **Liberia**, IDDS supported Ganta Rehab Hospital to begin referring specimens to G.W. Harley Hospital once a week for bacteriology testing, including by mentoring two technicians (both male) on specimen collection, packaging, and transport. In **Tanzania**, IDDS collaborated with the President's Office for Regional Administration and Local Governments to initiate AMR specimen referral from catchment

areas to 4 IDDS-supported testing laboratories. In **Vietnam**, IDDS continued making improvements to specimen data management software in collaboration with Binh Dinh Center for Disease Control, and the project also worked closely with Nhat Tin Logistics to monitor the quality of all specimens shipped from three pilot provinces. IDDS also held a meeting with Nhat Tin Logistics to finalize and renew its service contract, which includes revised terms on package pick-up, lead time, and other services. In two other provinces (Dien Bien and Lai Chau), IDDS worked with the National Center for Veterinary Diagnosis (NCVD) to provide sub-departments of animal health (SDAHs) with guidelines, training materials, and standard packaging materials to support specimen transport in response to outbreaks of anthrax.

In two countries, IDDS addressed priority gaps in the diagnostic testing pathway by **transporting specimens** to centralized testing facilities. In **Cameroon**, IDDS supported the transport of 53 shipments of human health specimens to national reference laboratories (NRLs) (Centre Pasteur Yaoundé, Centre Pasteur Garoua, and the National Public Health Laboratory [NPHL]) for testing, including 4 specimens from patients suspected of having Marburg virus disease. In **DRC**, IDDS coordinated the transport of 18 plague specimens collected in the Rethy health zone to the National Biomedical Research Institute (INRB) in Goma for bacteriological culture.

In six countries, IDDS worked to **enhance QMSs** at diagnostic laboratories and **prepare laboratories for accreditation**. In **Ethiopia**, two IDDS-supported sites—Jimma University Hospital and Hawassa University Hospital microbiology laboratories—applied for International Organization for Standardization (ISO) 15189 accreditation. In **Guinea**, IDDS and the National Institute of Public Health (or INSP) jointly conducted a supportive supervision visit to the Ignace Deen National Hospital Laboratory to develop corrective action plans for gaps in the QMS, laboratory results, stock management, and equipment maintenance documents. In **Liberia**, IDDS provided on-site QMS mentorship to four district hospital laboratories in Bong, Lofa, and Nimba counties, based on the Strengthening Laboratory Management Toward Accreditation program. In total, 19 technicians (5 female) were mentored, and 2 of the laboratories completed internal audits. At 4 other sites in the same counties, IDDS provided continuous on-site QMS mentorship to 42 technicians (9 female) in total. The project also provided financial support to the MoH National Diagnostic Division to conduct external Stepwise Laboratory Improvement Process Towards Accreditation (SLIPTA) audits in eight supported facilities, three of which achieved a score of 65 percent or higher (a two-star rating). Finally, an IDDS-supported bacteriology champion helped G.W. Harley Hospital and Phebe Hospital prepare external quality assessment (EQA) panels for bacteriology testing; the sites achieved scores of 89.4 and 98.8 percent, respectively. In **Mali**, IDDS supported an assessor to visit INSP and Segou Hospital to determine the two laboratories' readiness for accreditation. During the visits, the assessor provided technical assistance to establish, implement and continually improve the laboratories' QMS and guided the development of quality documents and technical and managerial SOPs. In **Senegal**, IDDS trained 30 participants (16 female) from 15 laboratories, 9 of which are supported by the project, on 7 QMS-related topics that had been identified as gaps during previous audits. During the training, participants were supported in developing their post-audit action plans for QMS implementation. In **Uganda**, IDDS secured commitments from the leadership of the Queen Elizabeth National Park Laboratory and the Mbale Regional Animal Disease Diagnostics and Epidemiological Center to support an IDDS-developed laboratory accreditation plan for the two sites. The project also conducted 2 accreditation mentorship cycle at 3 facilities, mentoring 13 people (4 female) during the first cycle on aligning laboratory documents with standard requirements, and

mentoring 12 people (4 female) during the second cycle, which was focused on correcting problems identified during a baseline audit and improving document archival systems.

Table 1: Project outputs related to strengthening diagnostic networks for FY 2023 Q3 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, mpox, and MENA 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	735	386			30	299			20
SOPs, plans, and guidelines developed or revised	57	16	5		30	6			
TWG* meetings held	26	21		1		3	1		
Supervisory visits conducted	39	25		1		11		2	
Pilots conducted	5					4			1
Assessment reports completed	0								
Persons mentored	197	2			84	3		108	
Specimens transported	1,232					1,232			
Countries†									
Cameroon		•				•		•	
DRC		•				•	•		
Ethiopia		•						•	
Guinea		•	•			•			
Indonesia		•							
Kenya		•				•			
Liberia					•	•			
Madagascar		•		•					
Mali		•							
Philippines						•			
Senegal					•				
Tanzania				•		•			
Tunisia									•
Uganda					•				
Vietnam						•			

*TWG=technical working group

†Countries listed are those that contributed to specific outputs in FY 2023 Q3.

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

In FY 2023 Q3, 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, promoting diagnostic stewardship, providing education on AMR, equipping laboratories with essential supplies, and building capacity for commodity management.

IDDS **strengthened laboratory staff capacity to detect priority pathogens and AMR** in six countries during FY 2023 Q3. In **Cameroon**, IDDS mentored 108 laboratory staff (67 female) at 9 AMR surveillance sites to operationalize SOPs for AMR detection. In **DRC**, IDDS delivered an online training on plague diagnostics and waste management to 23 laboratory workers (6 female) in IDDS-supported provinces in eastern DRC. In **Ethiopia**, IDDS and the Ethiopian Public Health Institute (EPHI) conducted joint supportive supervision visits to the Gondar University Hospital microbiology laboratory to assess the implementation of routine AMR surveillance activities, provide technical support, collect monitoring and evaluation data, and document corrective actions to continue improving services. IDDS also reviewed and approved a concept note from the Bahir Dar Regional Veterinary Laboratory on the collection of milk specimens for AMR surveillance; the laboratory then began analyzing milk specimens for the first time and successfully submitted the surveillance data to IDDS. In **Indonesia**, IDDS jointly conducted four monitoring visits to assess implementation of the PREDICT laboratory protocol, which comprises SOPs for One Health surveillance. The visits were conducted in collaboration with the Directorate of Surveillance and Health Quarantine and the Eijkman Molecular Biology Institute. In **Kenya**, IDDS mentored two male laboratory technologists from the Malindi Subcounty Hospital Laboratory on aspects of AMR detection and surveillance that were identified as gaps during a previous assessment. IDDS also provided technical assistance to Kitale County Referral Hospital and Bungoma County Referral Hospital staff to prepare case presentations for a virtual learning platform on isolation, identification, and antimicrobial susceptibility testing (AST) of AMR priority organisms, as well as use of the laboratory results by clinicians to manage patient treatments. In **Tanzania**, IDDS supervised laboratory staff at Maweni Regional Referral Hospital on AST and quality control.

To **promote diagnostic stewardship and AMR learning**, IDDS developed curricula, training, and conference presentations; held diagnostic stewardship workshops for clinicians; and helped develop new governance structures for AMR surveillance. In **Cameroon**, an IDDS-supported consultant developed an e-learning platform to host an AMR master program and three short-term certification programs, and the consultant translated some of the training materials from French to English. In **Ethiopia**, IDDS and EPHI held 3 diagnostic stewardship workshops to train 93 staff (25 female) from supported AMR sites on the diagnostic services available, types of specimens to submit to the laboratory for analysis, and how to effectively use the AMR test results for optimal patient management. In **Kenya**, IDDS and NASIC convened a 3-day forum for 21 participants (10 female) from the 5 IDDS--supported AMR surveillance sites to share their experiences, achievements, and challenges in the implementation of AMR surveillance. IDDS also conducted 2 webinars for medical professionals' continuing education on the subjects of diagnostic stewardship in clinical practice, attended by 96 participants (52 female), and reporting of culture identification and AST results, attended by 116 participants (74 female). IDDS held clinical-laboratory interface meetings at 3 project-supported sites (Bungoma, Kitale, and Nyeri sub-county hospital laboratories), during which diagnostic stewardship presentations were delivered to 44 participants (20 female) in Bungoma, 31 health care workers (15 female) in Kitale, and 73 health care

workers (51 female) in Nyeri. In Murang'a County, the project educated 30 health care workers (20 female) to sustain demand for bacteriology tests. IDDS provided technical and logistic assistance to four surveillance sites to analyze data, develop presentations of their findings for the Infection Prevention Network conference in Mombasa, Kenya, and to attend the event. Finally, IDDS participated in meetings convened by NASIC to review, format, and upload training materials on antimicrobial stewardship and infection prevention and control for the MoH virtual academy, and to develop a roadmap to streamline AMR data management practices.

Across five countries, IDDS **equipped laboratories with supplies** needed to detect priority pathogens and helped them **manage commodities**. In **Cameroon**, IDDS delivered computers to eight newly enrolled AMR surveillance sentinel sites to enable them to strengthen data collection and reporting. In **Ethiopia**, IDDS financed minor infrastructure improvements at Hawassa University Hospital and Gondar University Hospital laboratories, including completing renovation of their microbiology washing rooms and their media preparation rooms, aluminum window replacement, and painting. The project also delivered an autoclave to Hawassa Hospital Microbiology laboratory and facilitated the maintenance and calibration of microbiology equipment at the six IDDS-supported AMR surveillance sites. In **Kenya**, IDDS met with officials from Kilifi County to secure a commitment to funding equipment preventive maintenance and calibration of auxiliary and automated equipment that will guarantee the validity and reliability of laboratory test results that are needed to inform clinical decisions and to generate quality AMR surveillance data. In **Madagascar**, IDDS worked with the Department of Pharmacy, Laboratories, and Traditional Medicine to conduct a TWG meeting and site visits to collect information on the availability of laboratory supplies and medical imaging units. In **Tanzania**, IDDS provided technical assistance to four supported sites to manage stock and forecast microbiology commodities needed to maintain uninterrupted AMR testing, which will inform procurements that will be completed in the next quarter.

Strengthening National Surveillance Systems

Identifying and addressing gaps in surveillance systems (IR 2.1)

In FY 2023 Q3, IDDS provided support to seven countries to **increase their capacity to report complete, timely, and high-quality data** to strengthen the surveillance system. In **Cameroon**, IDDS provided technical support to NPHL to organize a virtual AMR data quality review meeting and to organize supervisory visits to each of the 16 AMR surveillance sites, during which supervisors reviewed AMR data collection processes and trained new laboratory personnel on WHONET software. (WHONET is the statistical software recommended by the World Health Organization [WHO] for the management of AMR surveillance data.) In **Guinea**, IDDS continued to provide Internet connections to project-supported laboratories in Mamou, Kankan, Kindia, Faranah, Ignace Deen, and Labe, to enable them to send weekly bacteriology and AMR results to the INSP at the central level. In **Indonesia**, IDDS participated in numerous meetings to develop, improve, and operationalize the Zoonosis and Emerging Infectious Disease Information System (SIZE). Progress included agreements to configure SIZE so that other platforms can be linked, upgrade the server, resolve information technology and domain issues, make improvements to the SIZE mobile application, and update government agencies on SIZE development and capabilities. In **Liberia**, IDDS provided technical assistance on accurate capture of bacteriology data into WHONET, including by financially supporting a bacteriology champion to mentor five technicians

(two female) from G.W. Harley Hospital. In **Tanzania**, IDDS supported 12 staff (6 female) to participate in WHONET refresher training. In **Uganda**, IDDS provided technical and financial support to the National Animal Disease Diagnostics and Epidemiology Center (NADDEC) to roll out an upgraded tool to 34 districts that they began using for monthly reporting of indicator-based surveillance (IBS) data. In **Vietnam**, IDDS continued to support five provincial SDAHs to implement the Vietnam Animal Health Information System (VAHIS). IDDS held quarterly data review meetings with each province as well as 5 virtual meetings to review VAHIS reporting and mentor a total of 54 provincial and district staff (24 female) on reporting animal disease data into VAHIS, including rabies data, of which outbreaks have been occurring with higher frequency. The project mentored district staff in Binh Dinh and Khanh Hoa provinces on reporting animal disease data into VAHIS, using both the web-based system and the mobile application. IDDS continues to collect feedback on the VAHIS mobile application and make improvements to correct errors and functions.

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

IDDS contributed to **multisectoral integration** in four countries, which 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. To establish a legal, formal platform for tackling zoonoses and emerging infectious diseases (EIDs) in **Indonesia's** Demak district, IDDS supported the Decree for Local Coordination Team to Prevent and Control Zoonosis/EIDs, which was signed by Demak Bupati (Regent). The local coordination team established by the decree will coordinate with a central team (established previously) to prevent the spread of infectious diseases both within Demak district and across district borders. In **Mali**, IDDS provided technical and financial support to Kadiolo health district to train 36 personnel (8 female) from key ministries of the One Health platform on the use of new IDSR technical guidelines. In the **Philippines**, IDDS held a series of coordination meetings (eight in total) with relevant stakeholders from government, academia, and implementing partners to determine current One Health priorities and technical gaps in each sector, as well as opportunities for collaboration, which will inform a concept note for a “twinning program” and a new roadmap of actions to strengthen diagnostic capacity. The twinning program aims to improve coordination between human health and animal health laboratories, and its activities will include capacity building workshops, laboratory training, joint surveillance systems, shared research initiatives, and public awareness campaigns to promote a One Health approach. IDDS continued to work with partners in **Uganda** to support the National One Health Platform, by supporting a TWG meeting.

Table 2: Project outputs related to strengthening surveillance systems for FY 2023 Q3 and the countries that contributed to these outputs (includes GHS, ARP, EVD, IDSR, mpox, and MENA 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	293		221	29	15	28
SOPs, plans, and guidelines developed or revised	10					10

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
TWG* meetings held	25	8	5	3	1	8
Supervisory visits conducted	49		25	24		
Pilots conducted	4		2	2		
Assessment reports completed	0					
Persons mentored	54		54			
Countries[†]						
Cameroon			•	•		
Guinea					•	
Indonesia		•		•		•
Kenya					•	
Madagascar						
Mali			•			
Senegal				•		•
Tanzania			•	•		•
Uganda			•			•
Vietnam			•			

*TWG=technical working group

[†]Countries listed are those that contributed to specific outputs in FY 2023 Q3.

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

IDDS supported five countries' efforts to **identify and track infectious diseases and public health incidents**, including by supporting their efforts to implement event-based surveillance (EBS) and community-based surveillance (CBS). In **Cameroon**, IDDS helped MoH draft guidelines for viral hemorrhagic fever surveillance, including by convening a 5-day workshop for 35 participants (15 female). In **Indonesia**, IDDS held a workshop to develop a plan for cross-sectoral integrated surveillance of H5N1 influenza in South Kalimantan, attended by 50 people (24 female). In **Madagascar**, IDDS developed three monthly IDSR bulletins as well as the 2022 Annual IDSR Bulletin, which provides information to policymakers about trends in disease patterns and emerging public health threats for the country. IDDS also assisted MoH in organizing an IDSR meeting during which 65 participants (38 female) from the central directorates of MoH and financial and technical partners discussed opportunities to improve IDSR and streamline data collection and dissemination. In **Mali**, IDDS and the General Directorate of Health and Public Hygiene (DGSH) conducted 25 supportive supervision visits to review CBS data from 4 supported health districts, during which 239 community health workers (187 female) and 84 community health center directors (9 female) received coaching. IDDS also supported DGSH in producing two monthly IDSR bulletins. In **Senegal**, IDDS supported the MoH/Directorate of Prevention (DoP) to re-launch the EBS system, using tools, guidelines, and SOPs developed by IDDS during FY 2023 Q2. IDDS, in collaboration with the Pasteur Institute and DoP, also conducted supportive supervision

visits to two sites to assess the implementation of the Senegalese Syndromic Sentinel Surveillance network. IDDS also technically and financially supported the Directorate of Laboratories (DoL) to hold a workshop to officially designate the NRL, national reference centers, and sentinel sites that will be included in the national AMR surveillance system.

IDDS worked in four countries to **improve data management and analysis** to strengthen surveillance systems for priority pathogens and AMR. In **Guinea**, IDDS and INSP jointly conducted a supportive supervision visit to the Ignace Deen National Hospital Laboratory to train five staff (one female) on WHONET and AMR data management and to review internal quality control data. In **Kenya**, during the AMR forum described in the AMR learning section above, IDDS delivered a refresher training to 15 participants (10 female) on using WHONET to review AMR surveillance data and generate site-specific antibiograms using their own data. Murang'a County completed their antibiogram during the training. In **Tanzania**, IDDS supported the participation of 22 national and laboratory staff (5 female) from IDDS-supported facilities to participate in a 3-day workshop to review AMR data. In **Uganda**, IDDS participated in five virtual national task force meetings aimed at strengthening the country's preparedness and response to priority infectious diseases.

Responding to EVD

IDDS continued to respond to EVD in DRC and Kenya. In **DRC**, IDDS procured 900 EVD Zaire GeneXpert® cartridges and supported their shipment to INRB Goma. IDDS also supported the transport of 1,768 used EVD cartridges to INRB Goma for safe disposal and incineration. IDDS supported the incineration of 23,368 used EVD cartridges, which was completed using an incinerator belonging to the United Nations Organization Stabilization Mission in DR Congo. Finally, IDDS provided financial support to the provincial division of health in North Kivu and INRB Goma to conduct a joint supervision visit to INRB Beni to assess the laboratory's capacities and performance using an IDDS-developed checklist. In **Kenya**, IDDS procured supplies to strengthen EVD specimen collection, packaging, and transportation. The supplies were handed over in two batches to the MoH laboratory subcommittee for distribution to counties.

Responding to mpox

In **Cameroon**, IDDS supported efforts to **implement EBS for mpox**. The project technically and financially supported the Government of Cameroon to organize a 2-day evaluation meeting on EBS for mpox, which convened 53 health personnel (21 female). IDDS also technically and financially supported a 3-day workshop to review 6 EBS training modules and to train 32 trainers (9 female) from the central and regional levels on EBS. IDDS then technically and financially supported the Department for Disease Control, Epidemics, and Pandemics to organize a 2-day workshop to train 38 participants (11 female) from the health districts of the Southwest region on EBS. Finally, IDDS provided technical and financial support to the Ministry of Livestock, Fisheries and Animal Industries to strengthen the capacity of 29 animal health surveillance personnel (19 female) of the Northwest and Southwest regions on mpox surveillance.

IDDS also worked in **Cameroon** to **strengthen mpox diagnostics** in regional laboratories of the affected regions. The project supported MoH to train 13 staff (7 female) from 2 regional laboratories and 2 central laboratories on mpox diagnostic techniques, which is expected to improve diagnosis turnaround

time. IDDS also purchased 1,500 mpox polymerase chain reaction (PCR) tests and associated reagents and consumables to support mpox testing at the national level, which supported the testing of 34 mpox cases, and provided small equipment required to improve diagnostic capacity at the 4 supported laboratories.

In addition, IDDS technically and financially supported an [mpox outbreak investigation](#) in Kumba and Mbonge health districts in the Southwest region of **Cameroon** to limit the spread of disease at the community level. The project helped investigate a total of 48 cases.

COVID-19

As the number of COVID-19 cases recedes globally, IDDS continued support for pandemic response in the **Philippines**, funded by the ARP. In FY 2023 Q3, IDDS support included 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 and the Isabela Provincial Epidemiology and Surveillance Unit jointly trained 11 trainers (9 female) from Isabela province, who then in turn conducted two one-day training sessions on COVID-19 specimen collection, handling, packaging, and transport for 41 health care workers (40 female).

IDDS also continued its [support for specimen transport](#) in the **Philippines**. In FY 2023 Q3, IDDS transported 1,605 specimens for reverse transcription PCR tests from 16 collection sites to testing sites in 4 IDDS-supported provinces (Cavite, Isabela, Laguna, and Palawan). IDDS support for COVID-19 specimen referral ended on June 30.

Finally, IDDS continued to [support procurement needs for essential COVID-19 supplies](#) in the **Philippines**. IDDS ordered 11,754 PCR extraction reagents (of which 6,000 were delivered in Q3), ordered 22,944 viral transport media (of which 18,528 were delivered in Q3), and delivered 55,800 rapid antigen test kits that had been previously ordered. IDDS also ordered 49,632 pieces of personal protective equipment, including N95 respirators, surgical masks, disposable laboratory gowns, non-powdered gloves, bouffant caps, and shoe covers, 40,731 of which were delivered in Q3.

Integrated Disease Surveillance and Response

IDDS implements IDSR activities in Cameroon, Senegal, and Uganda, funded by the USAID Bureau for Africa. 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, by participating in 10 data review meetings and supporting IDSR performance analysis. IDDS provided monthly phone credits to surveillance focal points for regular follow-up with health care facilities on weekly IDSR data reporting. IDDS also provided technical and financial support to conduct supportive supervision visits to 11 health facilities across 11 low-performing health districts, with a focus on completeness and timeliness of IDSR indicators. In **Senegal**, IDDS financially supported training for 28 nurses, midwives, surveillance officers, and physicians (19 female) on the third edition of the IDSR guidelines. IDDS also conducted a meeting for the seven health districts of the Tambacounda medical region, during which participants reviewed data for the top three priority diseases, checked and investigated the notifications for maternal and neonatal deaths, discussed issues that sites were facing

when investigating cases, and discussed the importance of entering complete and timely data into DHIS2.

U.S. President's Malaria Initiative

In **Cambodia**, IDDS coordinated and conducted three meetings with the National Center for Parasitology, Entomology and Malaria Control (CNM) to define the scope of work, finalize tools, plan for the PCR laboratory assessment, and select six sites for the malaria diagnostic network assessment (DNA). IDDS also completed the PCR laboratory assessment at the CNM laboratory and Kampong Cham provincial referral hospital laboratory, to better understand the two sites' capacities and identify areas for improvements. Through the assessment, IDDS determined that Kampong Cham could potentially become the regional PCR laboratory for CNM.

Tuberculosis

IDDS is implementing programs globally to strengthen TB diagnostic networks with both Core and country funding from USAID. Through its work across 15 countries in FY 2023 Q3, IDDS enhanced capacities of NRLs and regional TB reference laboratories (RTRLs) and built capacity to detect *Mycobacterium tuberculosis* (MTB), drug-resistant (DR) TB, multidrug-resistant (MDR) TB, and pre-extensively drug-resistant (pre-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 TB DNAs and laboratory network spatial analyses (LNSAs); filled gaps in the TB SRS; improved quality and strengthened leadership and management of TB diagnostic networks; continued to engage the private sector; and contributed to the evidence base through operational research studies and learning exchanges.

IDDS planned for a **TB DNA** in **Mozambique**, conducted a TB DNA in **Kenya**, and compiled TB DNA reports for four countries: **DRC**, **Kenya**, **Malawi**, and **Pakistan**. In **Kenya**, IDDS provided technical and logistic support for the DNA self-assessment workshop, during which Kenya National TB Program (NTP) officers used the TB-NET tool to evaluate the status of the diagnostic network. IDDS then conducted verification visits to 175 sites in 13 counties and began to prepare the draft DNA report. IDDS contracted about a dozen international and national consultants to support the Kenya TB DNA. In **Mozambique**, IDDS validated the Portuguese translation of the TB DNA tools and manuals in preparation for the assessment next quarter.

IDDS **completed spatial analyses to inform diagnostic network improvements** in six countries. In **Burma**, IDDS worked closely with WHO and the United Nations Office for Project Services (UNOPS), Principal Recipient of the Global Fund to Fight AIDS, Tuberculosis and Malaria, (Global Fund) to review GeneXpert and chest X-ray service coverage, direct and indirect population coverage, and utilization of GeneXpert instruments to identify potential sites for expansion of diagnostic services. In **Ethiopia** and **Malawi**, the LNSA reports are in the final stages of internal review, and the **Tanzania** LNSA report was submitted to USAID in April. In **Zimbabwe**, IDDS completed LNSA data analysis and began drafting the

report. IDDS also completed a spoke-and-hub spatial analysis for three districts in **Malawi** (Lilongwe, Machinga, and Chikwawa) to inform improvements to the specimen referral network. In **Uganda**, IDDS collaborated with the USAID-funded Demographic and Health Surveys Program to develop training materials to conduct epidemiological analysis of DR-TB using geographic information systems, develop dashboards, and create maps of outbreak hotspots.

In **Burma**, IDDS continued to **provide specimen transport support** to fill the gaps in the current system. With IDDS support, NTP transported specimens between regional laboratories and the national TB reference laboratory (NTRL) for genotypic and phenotypic culture, and between township laboratories and regional laboratories for molecular diagnostic testing.

IDDS continued its work in **India** to **engage the private sector** in the TB diagnostic network. The project worked with IQVIA, a third-party evaluator, to conduct stakeholder interviews in Hisar district about the impact of the one-stop TB diagnostic model that engages the private sector in TB specimen collection, transport, and testing. IDDS worked with IQVIA to analyze the interview findings and draft a report about the mid-course review of the Hisar model. IDDS also held regular discussions with Thyrocare, the private laboratory involved in implementing the Hisar model, to improve data entry. Finally, IDDS and NRLs developed two documents about assessing and improving the quality of TB diagnostics in private-sector laboratories, which were disseminated by the Central TB Division (CTD). The documents will be helpful for certifying private-sector laboratories to ensure that they conform with national standards.

IDDS implemented activities to **strengthen leadership and management of the TB diagnostic network** in four countries in FY 2023 Q3. In **Bangladesh**, IDDS finalized and submitted an SOP that included algorithms for two tests that can detect resistance of TB bacteria to rifampicin (RIF) and other essential medicines: Xpert® MTB/RIF Ultra and Xpert® MTB/XDR. In **Burma**, IDDS provided technical assistance to NTRL to update six SOPs (on topics including biosafety, pipette use, liquid culture, and first-line drug susceptibility testing [DST]) and to develop three new SOPs (on stool specimen management and testing using Xpert MTB/RIF Ultra, as well as use of Truenat) to align with current global guidelines and recommendations. To sustain the project's efforts to increase access to quality TB diagnostic services, IDDS handed over its diagnostic education materials (including videos, guidelines, SOPs, and manuals) to the Myanmar Anti-Tuberculosis Association for future use during capacity building activities. In **India**, IDDS and CTD visited three intermediate reference laboratories (IRLs) to validate the laboratories' self-assessments, using an IDDS-developed grading tool. CTD also disseminated two management documents developed by IDDS (a biosafety manual and a guidance document for EQA) to all the laboratories in the national network. Finally, IDDS and national partners organized a review meeting of IRLs and TB culture and DST (C-DST) laboratories to improve the coordination among laboratory tiers and resolve issues through peer-to-peer learning. In **Tanzania**, IDDS provided financial and logistic support to host a 3-day national TWG meeting for 30 participants (10 female) about the implementation of TB diagnostic activities across the country. IDDS also provided financial and technical support to the National TB and Leprosy Program and the central TB reference laboratory to conduct a three-day workshop to review and update the national molecular diagnostic guideline to include new TB diagnostic methods and assays, such as Truenat and stool testing.

IDDS worked in four countries to **enhance quality of laboratory services and workplace safety**. In **Bangladesh**, IDDS organized a joint supervision visit for NTP staff to observe GeneXpert and LED microscopy activities at the Rajshahi RTRL. Supervision took place at seven GeneXpert and microscopy

centers in four sub-districts: Nilphamari, Panchagarh, Dinajpur, and Rangpur. IDDS also secured an agreement from the Vietnam NTRL to provide 150 EQA panels to GeneXpert sites in Bangladesh at no cost, and the project will support upcoming EQA training and reporting of results to the Vietnam NTRL for evaluation. In **Cambodia**, IDDS and the National Center for Tuberculosis and Leprosy Control provided training on safe working practices to 18 participants (8 female) from NTRL and 2 provincial referral hospital laboratories. In **Pakistan**, IDDS trained 70 laboratory staff (23 female) on 5 modules about biosafety and biosecurity, across 4 supported laboratories. IDDS also conducted an in-person external audit at each of the four sites, administering the SLIPTA checklist and developing a corrective action plan for each laboratory. In **Zimbabwe**, IDDS provided technical support and mentoring to 15 laboratories in Harare province, with a focus on competency assessments, follow-up and resolution of non-conformities identified during baseline audits, and proficiency testing results management and corrective actions.

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

To improve laboratory capacity for TB detection, IDDS upgraded data management systems; expanded use of GeneXpert, Truenat®, and TB diagnostic connectivity solutions; equipped laboratories with key supplies; delivered trainings and equipment to improve DR-TB and pre-XDR TB detection; and delivered operational research and other knowledge exchange opportunities.

In two countries, IDDS supported **upgrades to data management systems** that will allow laboratories to streamline data management and facilitate monitoring of laboratory performance. In **Burma**, IDDS worked with NTRL to refine the plan for integrating the electronic laboratory information management system (eLIMS). In **DRC**, IDDS improved the LIMS by replacing a printer that allows labels to be affixed to patient specimens and improves their traceability in the system.

In three countries, IDDS **improved TB diagnostic connectivity solutions**. With Core TB funds, IDDS completed and submitted to USAID an implementation report on diagnostic connectivity that summarizes the project's support for connectivity solutions, including Savics' DataToCare (DTC) and SystemOne's GxAlert/Aspect®, in six countries: Bangladesh, Cambodia, Mozambique, the Philippines, Tanzania, and Zimbabwe. In **Cambodia**, IDDS continued working with Savics and the USAID-funded Community Mobilization Initiatives to End Tuberculosis project to test interconnectivity between DTC and the TB management information system, as well as to correct issues identified during testing (most are now resolved). IDDS also worked with Savics and Molbio Diagnostics to connect the 13 remaining Truenat devices to DTC and plan for upcoming software updates. In **Tanzania**, IDDS continued to collaborate with the USAID mission and SystemOne to review and discuss key performance indicators and enhancements to the country's connectivity solution (Aspect). Aspect informs reports about utilization of WHO-recommended rapid diagnostics (WRDs), which IDDS continues to compile and share with the National TB and Leprosy Program and other stakeholders. IDDS also supported the Truenat OS upgrade for all 30 Truenat instruments, which is necessary to allow connectivity to Aspect. In **Uganda**, IDDS configured GeneXpert instruments at two high-volume sites (Lira and Mbarara regional hospitals) to LabXpert. (LabXpert is a connectivity solution that was designed, produced, and scaled nationally in Uganda. It is an alternative to GxAlert or DTC.)

Across four countries, IDDS **equipped laboratories with supplies** needed to detect TB and **completed refurbishments** to house new equipment and safely manage laboratory waste. In **Bangladesh**, IDDS

organized a site visit for USAID staff to review ongoing refurbishments at the Chattogram NTRL (including HVAC installation and upgrades to the negative pressure room), many of which are now complete. In **Burma**, IDDS provided technical assistance in planning for uninterruptible power supply (UPS) at public-sector GeneXpert sites, after experiencing widespread and severe power outages in the previous quarter. With WHO, IDDS compiled and presented to NTP and UNOPS a list of recommended equipment for specific scenarios of power supply, with and without solar charging options. In **DRC**, IDDS supported the repair of the NTRL autoclave and supported installation of the new biosafety cabinet and incinerator at NTRL, which also required upgrading the electricity line serving the incinerator. IDDS worked closely with NTRL to develop the SOP and job aid for proper use of the new incinerator. In **India**, IDDS equipped a central TB laboratory in Hisar district with two 4-module GeneXpert instruments, two UPS instruments, and two refrigerators, and completed minor infrastructure modifications (electrical work, plumbing, and setting up work benches) to support the new equipment.

In four countries, IDDS **delivered essential training on new diagnostic TB tools and approaches**. In **Bangladesh**, the project trained 10 TB and leprosy control assistants (3 female) to use Truenat for TB testing. In **Cambodia**, IDDS conducted a refresher training for 30 Truenat end users (10 female), who achieved an average test score of 80 percent after the training, compared to only 33 percent before the training. In **Tanzania**, IDDS collaborated with Molbio Diagnostics to facilitate the installation of 21 Truenat instruments and train 21 end users (1 from each facility that received a new instrument). The sites have already begun using the new equipment, reporting 362 TB tests by the end of the quarter. In **Zimbabwe**, IDDS conducted a refresher training for 20 Truenat end users (9 female) from 20 Truenat sites, as well as 3 NTRL staff. The training included a hands-on session to improve proficiency of end users in conducting Truenat testing. IDDS also provided financial and technical support for Truenat super-users to conduct supportive supervision visits to the 20 Truenat sites. In total, 34 microscopists and laboratory technicians (12 female) participated in the supervisory visits.

IDDS worked in seven countries to **build capacity to detect DR-TB**. In **Bangladesh**, IDDS facilitated the process for NTP to obtain pure bedaquiline, a medicine used to treat MDR-TB, from the U.S. National Institutes of Health (NIH). The availability of bedaquiline will allow NTP to initiate DST for bedaquiline throughout reference laboratories. IDDS also provided technical support to NTP to plan and organize a six-day phenotypic C-DST training for laboratory staff. In **Cambodia**, IDDS trained six laboratory staff (three female) on phenotypic DST for new and repurposed TB drugs and culture. In **India**, IDDS hired two laboratory technicians to support operations at the TB C-DST laboratory at Rajan Babu Institute of Pulmonary Medicine and Tuberculosis in New Delhi. In **Mozambique**, IDDS facilitated a training for eight laboratory technicians from Carmelo laboratory and NTRL (six female). The Carmelo laboratory started conducting TB culture testing in specimens referred from all Gaza districts. The decentralization of DST will reduce the workload and specimen volume at NTRL and reduce turnaround times for delivering results to clinicians and patients. IDDS also hosted a workshop to draft and approve the terms of reference for a TWG, clinical committees, and use case scenarios, and to update the algorithm for genomic testing. In **Pakistan**, IDDS finalized the TB Drug Resistant Survey and sentinel site surveillance protocols and identified six pilot sites that will conduct DR-TB surveillance using the Xpert MTB/XDR assay. In **Tanzania**, IDDS provided financial and logistic assistance to enable the national mentors to conduct a two-week on-site mentorship on probe assay and culture testing at each of the four zonal laboratories. Thirteen staff (5 female) were mentored. In **Uganda**, IDDS developed training materials on

the use of the microdilution broth method, which will support phenotypic DST for new and repurposed drugs.

IDDS continued to **increase access to isoniazid and fluoroquinolone DST** by equipping sites in three countries with GeneXpert 10-color instruments and Xpert MTB/XDR cartridges. In **Bangladesh**, IDDS provided technical support for installing a GeneXpert 10-color instrument at Khulna RTRL, the first of four sites that will receive instruments in the country. In **Malawi**, IDDS defined optimized specimen transport routes and schedules from surrounding health facilities to the three GeneXpert 10-color sites. In **Uganda**, IDDS supported installation of two GeneXpert 10-color instruments, at two high-volume laboratories: the Lira and Mbarara regional hospitals. IDDS also trained 29 laboratory and clinical staff (5 female) to use the Xpert MTB/XDR assay.

IDDS provided **operational planning for Truenat** implementation in two countries. In **Bangladesh**, IDDS procured 34,000 Truenat test kits in coordination with NTP, which will be distributed to Truenat sites after clearing customs. IDDS also provided Truenat sites with guidance for equipment maintenance during suspension of Truenat testing. In **Malawi**, IDDS completed pre-installation assessments at four sites that will receive Truenat instruments.

To **support quality control for new TB diagnostic tools** and monitor facility performance, IDDS has been supporting EQA for Truenat, GeneXpert, and microscopy. In six introducing New Tools Project countries that are receiving Truenat technology, IDDS partnered with SmartSpot Quality, an accredited manufacturer of validated EQA panels, to provide each Truenat site in these countries with three cycles of EQA for 2023. IDDS also procured Xpert MTB/XDR EQA panels for **Malawi, Cambodia, and Zimbabwe**. During FY 2023 Q3, **Bangladesh** received results for its third cycle of EQA conducted in FY 2023 Q2, which demonstrate that 19 of 38 sites received a “pass” or “acceptable” grade. The **Philippines** completed its first cycle, and results will be available in the next quarter. In **Zimbabwe**, IDDS provided financial and technical support to ensure that commodities are available to support proficiency testing for smear microscopy (conducted by the National Microbiology Reference Laboratory). IDDS also supported proficiency testing for GeneXpert and Truenat through embedded staff at NTRL.

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 partners in five countries. With Core TB funds, IDDS collaborated with USAID and the Uganda Supranational Reference Laboratory to organize two virtual Pediatric TB Community of Practice meetings on May 22 and June 21. In **Burma**, IDDS provided training to six staff (three female) from three civil society organizations on stool specimen transport for Xpert MTB/RIF Ultra testing for childhood TB diagnosis. In **Cambodia**, IDDS and the National Center for Tuberculosis and Leprosy Control trained 36 participants (7 female) from 6 operational districts on the SOS stool method for TB testing; participants achieved an average test score of 76 percent after the training, compared to 37 percent before the training. In **Malawi**, IDDS completed the stool testing pilot, and the pilot sites have continued providing stool testing after the end of pilot, utilizing the remaining testing commodities (at the direction of the National TB and Leprosy Elimination Program). In **Mozambique**, IDDS organized a TWG workshop for 25 participants (17 female) to review and approve the training package for SOS stool processing using Xpert MTB/RIF Ultra. After the approval of the training package, IDDS sponsored the first provincial training of trainers for 30 participants (6 female) from 4 provinces. In **Zimbabwe**, IDDS worked with NTP to organize the first National Childhood TB Stakeholder Meeting attended by 25

participants. and visited 15 sites to improve the clinical laboratory interface and encourage stool testing uptake by clinicians.

IDDS promoted **exchange of knowledge and developed expertise** in the TB field through learning opportunities and operational research studies. In **India**, IDDS and NRLs supported CTD to host the first TB Wednesday session, attended by more than 500 participants. TB Wednesdays will continue as a monthly opportunity for staff from all laboratory tiers to engage with subject matter experts as well as their peers. With Core TB funds, IDDS supported the logistic and technical planning for a DST workshop held in Addis Ababa, Ethiopia. The workshop was attended by more than 100 key stakeholders, including NTP and NTRL representatives of 21 countries, implementing partners, diagnostics and treatment developers, advocacy groups, donors, and USAID staff. IDDS supported travel and accommodations for 46 participants (24 female) for the meeting. As of June, IDDS has six operational research studies at different implementation stages in five countries. For the study on bacteriologically confirmed TB in **DRC**, IDDS drafted three manuscripts and submitted them to USAID for approval. IDDS also drafted a manuscript about the one-stop TB diagnostic model in **India's** Hisar district and submitted it to the USAID mission for input. The IDDS consortium had 10 abstracts accepted for presentation at the 53rd Union World Conference on Lung Health.

Table 3: Project outputs related to strengthening TB diagnostic networks for FY 2023 Q3 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	Biosafety	QMS	Equipment Maintenance	Diagnostic Connectivity Solutions	SRS	Other Diagnostic Topic
People trained	906	191	72	14	616	10	0	0	1	3
SOPs, plans, and guidelines developed or revised	16	1	1	4	2	2	1	0	0	2
TWG* meetings held	5	0	2	0	0	1	0	0	0	2
Supervisory visits conducted	95	61	7	0	0	0	0	20	0	7
Pilots conducted	1		1	0	0	0	0	0	0	
Assessment reports completed	4	1	0	0	0	0	0	0	0	3
People mentored	41	0	0	13	0	28	0	0	0	0
Countries [†]										
Bangladesh		•								•
Burma		•	•	•	•	•			•	
Cambodia		••	•	•	•			•		
DRC							•			•
India		•			•	•				
Kenya										

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	Biosafety	QMS	Equipment Maintenance	Diagnostic Connectivity Solutions	SRS	Other Diagnostic Topic
Malawi			•							•
Mozambique			•	•						•
Nigeria		•								
Pakistan					•	•				•
Tanzania				•						•
Uganda		•								
Zimbabwe		•				•				•
Multi-country		•	•							

*TWG=technical working group

†Countries listed are those that contributed to specific outputs during FY 2023 Q3.

‡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 country funding

Middle East and North Africa

With funds from the USAID Bureau for the Middle East, IDDS developed an assessment tool, based on the TB DNA, to be piloted in MENA countries to assess the diagnostic network capacity and preparedness for emerging and reemerging disease threats. During FY 2023 Q3, IDDS completed a pilot of the tool in **Tunisia**. First, the project held a self-assessment workshop for 39 participants that resulted in a comprehensive evaluation of the diagnostic network and delivery of self-scored stages for the 9 core capacities included in the DNA tool. IDDS then held a workshop to train assessors for the DNA, which was attended by 27 participants (23 female). IDDS, the World Bank, and the Tunisian MoH visited 14 facilities across 8 regions to verify self-assessment scores, and IDDS and the World Bank then held a debriefing and dissemination workshop for 22 participants (13 female) to complete the pilot assessment. IDDS and the USAID Bureau for the Middle East also discussed completing a second pilot assessment in Yemen, which would be remotely conducted due to security concerns. 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 Q3 are summarized in the tables that follow.

Work Plans Submitted and Approved in FY 2023 Q3

Project Area	Submitted/Resubmitted in Q3	Received USAID Approval in Q3
GHS	• Uganda: 6/23/2023 & 6/29/2023	• None
TB	• Cambodia (to clear contingencies): 5/24/2023	• None
Cross-Cutting	• IDSR 2: 4/26/2023	• IDSR 2: 5/17/2023

Deliverables Submitted in FY 2023 Q3

Project Area	Number of Key Deliverables Submitted to USAID in Q3
GHS	3
C-19F/ARP	0
EVD	0
IDSR	0
TB	6
Total	9

Program Highlights

Global Health Security FY 2023 Q3 Achievements

CAMEROON

Quarterly Highlights

Success Stories:

- IDDS Supports Cameroon's Southwest Region to Reinforce Surveillance After Integrated Disease Surveillance and Response Training
- IDDS Supports Cameroon to Decentralize Testing and Boost Mpox Surveillance

Diagnostic Highlights:

- To strengthen AMR data collection and reporting, IDDS procured and delivered computers to the eight newly enrolled AMR surveillance sentinel sites.
- To promote AMR learning, IDDS supported the launch of an e-learning platform for the AMR master program at the University of Buea.

Surveillance Highlights:

- To evaluate implementation progress and assess AMR data quality, IDDS provided technical support to NPHL to organize a virtual data quality review meeting on June 6–7, with staff from NPHL and six IDDS-supported facilities in attendance.
- To inform national and global AMR surveillance efforts, IDDS supported the National Coordination Center in preparing the 2022 Antimicrobial Surveillance Annual Report at two on-site and two online review meetings in May.
- IDDS helped MoH draft surveillance guidelines for the detection, prevention, and control of viral hemorrhagic fevers by hosting a five-day workshop with representatives from several government ministries across sectors (human health, animal health, and environmental health).

Mpox Highlights:

- To enable the identification of mpox cases in the community and better understand the dynamic of the outbreak and potential risk factors, IDDS supported an mpox outbreak investigation in Kumba and Mbonge health districts in the Southwest region.
- To improve rapid case detection in the Southwest region, IDDS supported the Government of Cameroon to organize a two-day evaluation meeting on EBS, which brought together 53 health personnel (21 female) from regional, national, and international organizations to discuss challenges in EBS implementation.
- To reduce turnaround time for mpox results, IDDS equipped regional laboratories with mpox PCR tests and trained 13 laboratory staff (7 female) from 2 regional and 2 central laboratories in mpox

diagnostic testing techniques. Now that regional laboratories can conduct mpox testing, mpox specimens no longer need to be sent to Centre Pasteur Yaoundé for testing.

Problems Encountered and Solutions

Problem	Resolution	Status
Disease outbreaks and other public health emergencies have impacted implementation progress, because MoH stakeholders are unable to prioritize IDDS engagements while addressing the various public health emergencies.	IDDS maintained frequent communication with government stakeholders and negotiated new dates for engagements where appropriate.	In progress
There have been delays securing the signature of the Minister of Public Health on the foreword of the mpox surveillance guidelines.	IDDS continues to follow up with the Ministry of Public Health.	In progress
There have been challenges with procurement of supplies, consumables, and equipment.	IDDS remains in frequent communication with the vendor.	In progress

Lessons Learned

- None to report.

FY 2023 Q3 Output Results

165



People trained

Electronic reporting systems – GHS (53)
 Electronic reporting systems – mpox (70)
 Data quality – mpox (29)
 Testing – mpox (13)

16

Supportive
supervision visits

Testing

1

TWG
meeting held

Data quality

108



People mentored

AMR diagnostic advocacy

139



Specimens transported

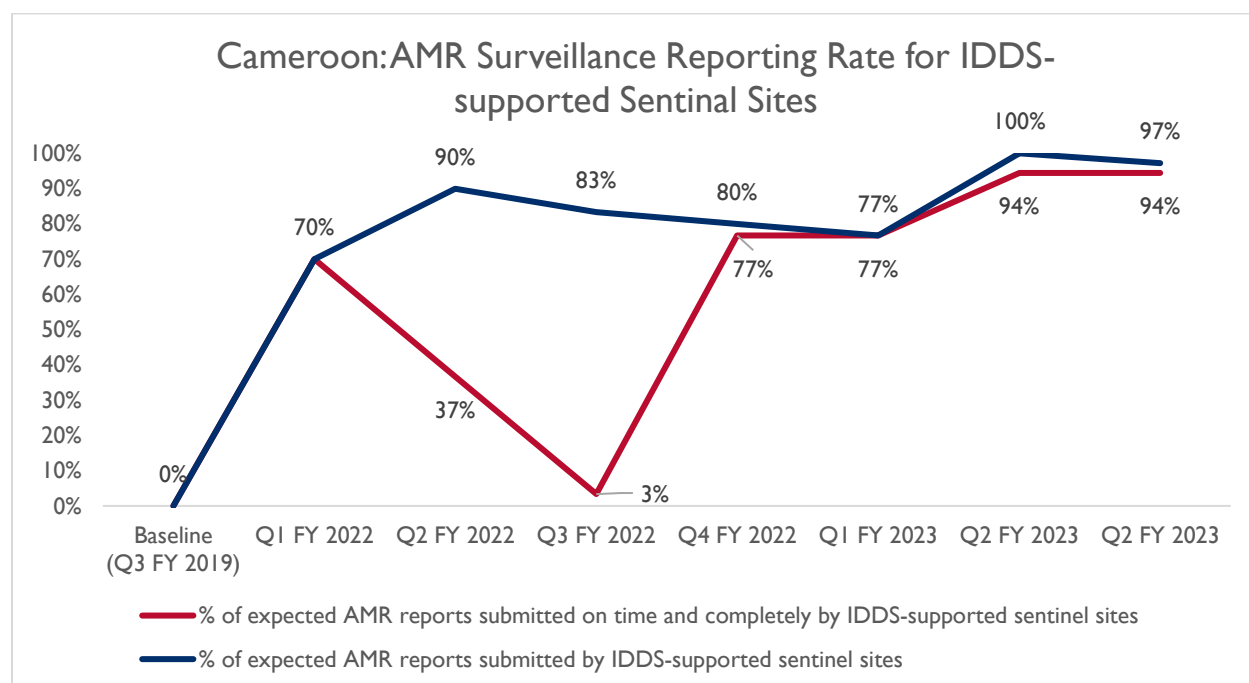
SRS – GHS (86)
 SRS – mpox (53)

48

Outbreak cases
investigated

Other surveillance – mpox
 case investigation

FY 2023 Q3 Outcome Results



IDDS supports AMR detection and surveillance at nine human and three animal sentinel surveillance sites in Cameroon by providing technical assistance, mentorship, and training on WHONET reporting, AMR data management, analysis, and interpretation. IDDS supported Cameroon to establish the AMR sentinel surveillance sites and reporting system. The graph shows significant improvement in the AMR reporting rates as well as the timeliness and completeness of the reports. There were no specific reasons provided for the sharp reduction in the timeliness and completeness of AMR reports in FY 2022 Q2 other than the sites slipped in meeting the reporting deadline due to management issues.

DEMOCRATIC REPUBLIC OF THE CONGO

Quarterly Highlights

Success Story:

- Successful Shipment of 6,966 Ebola Specimens Across a Security Fragile Environment in Eastern DRC Using UNHAS Flight

Diagnostic Highlights:

- IDDS made significant progress in improving outbreak response and strengthening laboratory capacities in DRC. IDDS submitted an updated outbreak action plan to USAID, aligning it with the National Laboratory Strategic Plan. This comprehensive plan, developed in the context of One Health, builds on the 2014 contingency plan, ensuring standardized actions in response to outbreaks with combined resources.
- To establish new capacity for plague bacteriology culture, IDDS conducted a focused training program for 23 health workers in 4 supported provinces of eastern DRC. These efforts contribute to enhancing DRC's ability to respond to outbreaks and strengthen laboratory services, improving the country's readiness to safeguard public health.

EVD Diagnostic Highlights:

- IDDS successfully facilitated the delivery of 900 EVD Zaire GeneXpert cartridges to INRB Goma, where they will bolster the diagnostic capabilities in the region. IDDS remains committed to closely collaborating with local stakeholders to monitor the availability and effective utilization of the EVD test stockpile in the country, reinforcing DRC's ability to respond to outbreaks.
- To assess and monitor laboratory capacity and performance in the eastern region, IDDS provided technical assistance for the development of a laboratory supportive supervision checklist. IDDS then provided remote support to provincial divisions of health and INRB as they carried out supportive supervision to provincial laboratory sites using the checklist. During the visit, supervisors assessed staff training and certification, physical installation/structure, laboratory safety and equipment, specimen management and test performance, procurement and inventory management, test results and data management, and waste management.

Problems Encountered and Solutions

Problem	Resolution	Status
Security concerns and the state of emergency in North Kivu and Ituri provinces (May 2021 to date) have interfered with IDDS activities in eastern DRC. IDDS activities can only take place	IDDS has regularly checked security information, and security alerts have become more readily available. The staff are only authorized to travel when the situation permits. IDDS closed its	In progress

Problem	Resolution	Status
periodically, when and where the current security situation allows travel.	office in Goma, and staff were relocated to Kinshasa.	
In addition to the issues with staff travel due to security, other IDDS activities have been impacted by irregular and cancelled flights to and from eastern DRC, which have caused implementation delays and increased expenses. For example, during FY 2023 Q2, the United Nations Humanitarian Air Service suspended Goma flights due to rebel fire at one United Nations helicopter. The limited access to the region continued to affect IDDS activities in FY 2023 Q3, such as by limiting the frequency of specimen shipments from satellite sites to INRB Goma.	IDDS contacted alternate airline companies for available internal flights when needed. IDDS provided remote technical assistance to monitor ongoing supportive activities.	In progress

Lessons Learned

- None to report.

FY 2023 Q3 Output Results

23



People trained

Testing

2

SOPs, plans, and guidelines
developedTesting – GHS (1)
Testing – EVD (1)

1

Supportive
supervision visit

Testing – EVD

21

TWG
meetings heldTesting – GHS (18)
Testing – EVD (2)
Biosafety and biosecurity – EVD (1)

21

Specimens
transported

SRS – plague

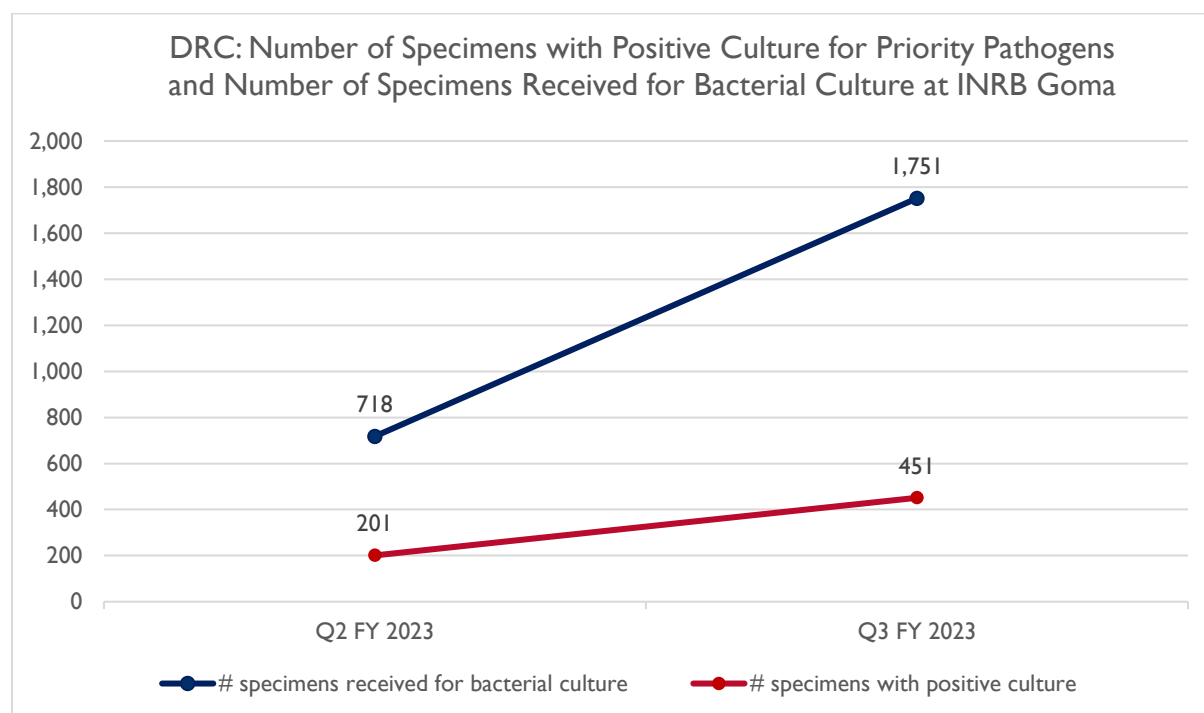
69

Waste bags transported
for incineration

Biosafety and biosecurity*

*These 69 waste bags transported for incineration contained 23,368 used EVD cartridges and 53 used COVID-19 cartridges.

FY 2023 Q3 Outcome Results



Since FY 2022 Q4, IDDS has focused on strengthening diagnostic capacity of INRB in Goma for the detection of priority pathogens, diagnosis of plague, and waste management by providing technical assistance, limited supplies/reagents, trainings, and supportive supervisions. The results reported for INRB Goma for the last two quarters indicate that IDDS support is enabling this laboratory to expand bacterial culture for detecting priority pathogens and AST. IDDS started tracking these outcomes in FY 2023, but there were no data reported by the laboratory in FY 2023 Q1.

ETHIOPIA

Quarterly Highlights

Success Story:

- IDDS Strengthens Animal Health AMR Detection and Surveillance in Ethiopia

Diagnostic Highlights:

- To promote diagnostic stewardship and prudent use of antimicrobials, IDDS, in collaboration with EPHI, conducted 3 workshops at which the project provided on-site training to 93 clinicians (25 female) on microbiology laboratory services, which services to submit for analysis, and how to effectively use testing results for optimal patient outcomes.
- To support continuous improvement and quality assurance, IDDS conducted supportive supervision visits to two-IDDS supported laboratories, Hawassa University Hospital and Gondar University Hospital, which noted several improvements at the facilities since the last visits.
- To improve the quality and reliability of laboratory services, IDDS continued to support the accreditation processes at supported sites. Two IDDS-supported laboratories, Jimma University Hospital and Hawassa University Hospital, applied for ISO 15189 accreditation this quarter.

Surveillance Highlights:

- In a key step for improving surveillance of bacterial infections in the animal health sector, IDDS supported the launch of milk specimen testing at the Bahir Dar Veterinary Laboratory. With the Animal Health Institute, IDDS mentored laboratory staff in various topics and assisted with procuring the necessary reagents and consumables to support milk specimen collection and transport to the laboratory for testing.

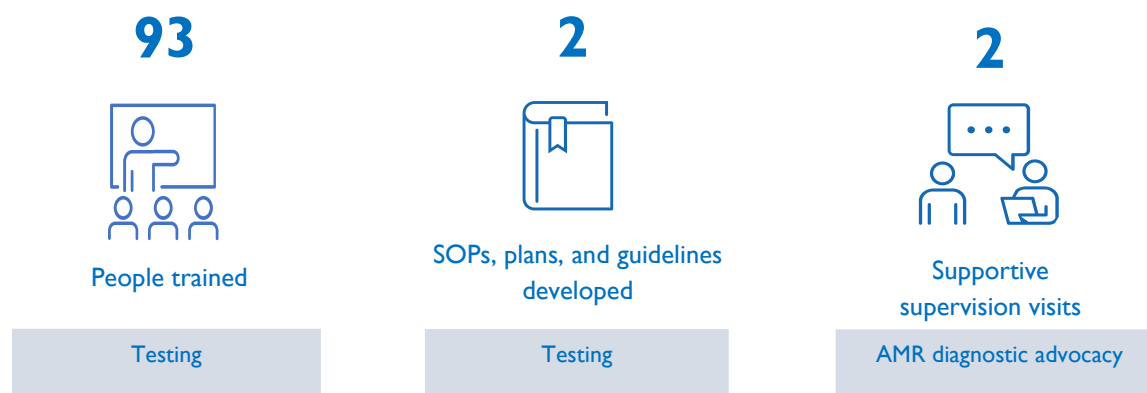
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

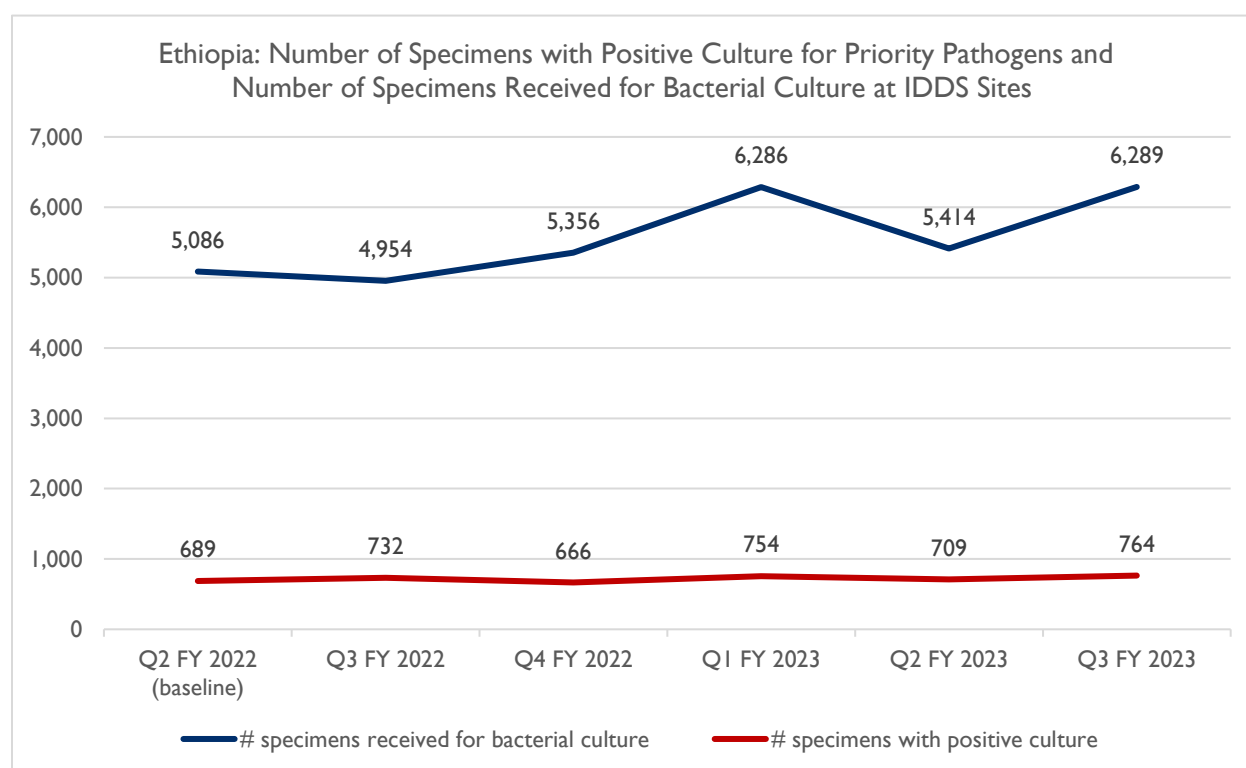
Lessons Learned

- Site-level AMR diagnostic stewardship training enhances communication between the laboratories and physicians and increases the volume and quality of specimens collected in patient wards.
- Intensified mentorship plays a great role in improving implementation of laboratory quality management and preparing laboratories toward ISO 15189 accreditation.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



IDDS has continued strengthening capacity for bacteriology testing in five human health laboratories in Ethiopia and is engaging clinicians to utilize these testing services. These efforts have 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 Q3 included *Acinetobacter* spp., *E. coli*, *Klebsiella*

pneumonia, Pseudomonas aeruginosa, Salmonella spp., Staphylococcus aureus, Streptococcus pneumoniae, and Streptococcus pyogenes.

GUINEA

Quarterly Highlights

Success Stories:

- Biosafety and Rapid Diagnostic Training Provide Enhanced Protections Following Guinea's Ebola Outbreak
- IDDS Pilots a New Strategy to Improve Guinea's Specimen Referral System

Diagnostic Highlights:

- Representing a major milestone for access to diagnostic services in Guinea, IDDS supported the national expansion of the SRS that IDDS had originally piloted in three regions (Kindia, Mamou, and Faranah). This quarter, IDDS collaborated with Village Reach and CDC to expand the SRS to all 33 health districts in Guinea. To improve SRS capacities, in May and June, IDDS, Village Reach, and CDC trained 247 health care workers and union drivers (45 female) across more than 220 health centers in 17 of the 33 districts in the SRS network. Non-IDDS partners completed training in the remaining districts. IDDS also provided SRS supportive supervision visits to 11 health districts to address issues they are facing during the SRS expansion.
- To provide mentorship on AMR data management and analysis, IDDS provided financial support to and participated in an AMR TWG meeting to discuss and address pending action items, such as the development of the national AMR bulletin and enrollment of Guinea in WHO's Global Antimicrobial Resistance Surveillance System.
- To strengthen capacity for testing for priority zoonotic diseases, IDDS procured reagents for Lassa fever diagnostic testing and handed them over to MoH laboratory technicians working in the Nzérékoré region, which is prone to Lassa fever outbreaks.

Problems Encountered and Solutions

Problem	Resolution	Status
Frequent political protests in Conakry make it unsafe to work in the office.	The IDDS team continues to work remotely.	In progress

Lessons Learned

- None to report.

FY 2023 Q3 Output Results

252



People trained

Testing (5)
SRS (247)

14

SOPs, plans, and guidelines
developedTesting (9)
Equipment maintenance (5)

12

Supportive
supervision visitsTesting (1)
SRS (11)

1

TWG
meeting heldData analysis and use
(AMR data bulletins)

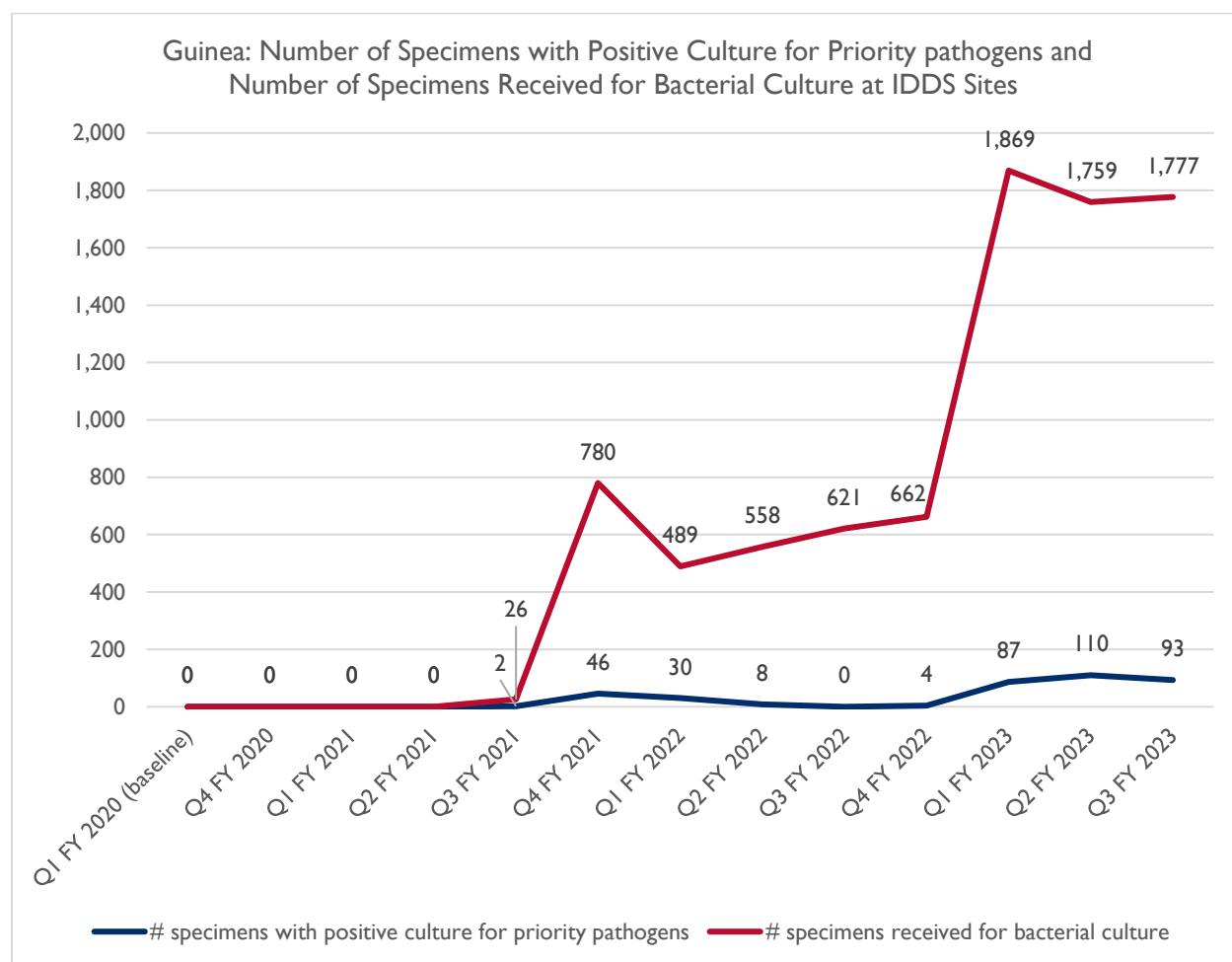
1,072



Specimens transported

SRS (integrated network)

FY 2023 Q3 Outcome Results



In FY 2021, IDDS enabled bacteriology testing in three laboratories, and in FY 2023, IDDS began supporting three additional laboratories for bacteriology and AMR surveillance. The data prior to FY23 Q1 are for three laboratories only. From FY 2023 Q1–Q3 data are from six IDDS-supported laboratories. The seventh laboratory that IDDS is supporting has not yet begun culture and AST as of FY 2023 Q3. Only bacterial priority pathogens listed by the national government as being of “primary concern” are reported for this indicator, which in most reporting periods for Guinea included *E. coli*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Staphylococcus aureus*, *Staphylococcus xylosus*, and *Streptococcus pneumoniae*.

In FY 2022 Q3, three IDDS-supported laboratories had stockouts of reagents for culture and AST and experienced interruption of testing services, resulting in no specimens with positive culture for priority pathogens. During that period of stockouts in 2022, bacteriology testing (namely gram staining and microscopy) continued at IDDS sites.

INDIA

Quarterly Highlights

Surveillance Highlights:

- To guide state-level efforts to create a policy for combatting the spread of AMR, IDDS, in coordination with NCDC, supported the State of Sikkim in organizing an inter-sectoral consultation for the development of the SAP-CAR.
- IDDS revised the second draft of the NAP on AMR 2.0 and submitted it to NCDC.

Problems Encountered and Solutions

Problem	Resolution	Status
It has been difficult to engage the environmental sector in the NAP-AMR consultation, due to their reluctance in owning their role in containing AMR.	IDDS will support NCDC in identifying experts from the environmental sector who will be involved in the proceedings of the meeting during which the NAP will be finalized, which will provide opportunities for better ownership for the sector's activities.	In progress

Lessons Learned

- It is important to understand stakeholders' different perspectives when it comes to AMR because it helps produce a more comprehensive approach and operational plan.
- To foster comprehensive and efficient AMR systems, it is important to promote coordination within and between departments and sectors, because silos and a lack of communication create redundancies, gaps, and inefficiencies in AMR implementation.
- The State of Sikkim has immense potential for implementing activities pertaining to AMR testing, surveillance, and containment but limited ability for advocacy. Strategic collaboration will help channel the state's efforts to implement the SAP-CAR.

FY 2023 Q3 Output Results

I



TWG
meeting held

Sikkim SAP-CAR

INDONESIA

Quarterly Highlights

Surveillance Highlights:

- To establish a legal, formal platform for tackling zoonoses and EIDs in Indonesia's Demak district, IDDS supported the Decree for Local Coordination Team to Prevent and Control Zoonosis/EIDs, which was signed by Demak Bupati (Regent). The local coordination team established by the decree will coordinate with a central team (already established previously) to prevent the spread of infectious diseases both within Demak district and across district borders.
- IDDS, in collaboration with the Directorate of Surveillance and Health Quarantine and the Eijkman Molecular Biology Institute, conducted monitoring visits for PREDICT protocol implementation in BBTKLPP Makassar (April 5), BBTKLPP Manado (April 13), BBTKLPP Batam (June 26), and BBTKLPP Ambon (June 27). The visits were attended by the coordinator of the Surveillance Laboratory Working Group of the Ministry of Health (MoH) and staff, the head of the BBTKLPP site and its staff, IDDS, and the Eijkman Molecular Biology Institute.

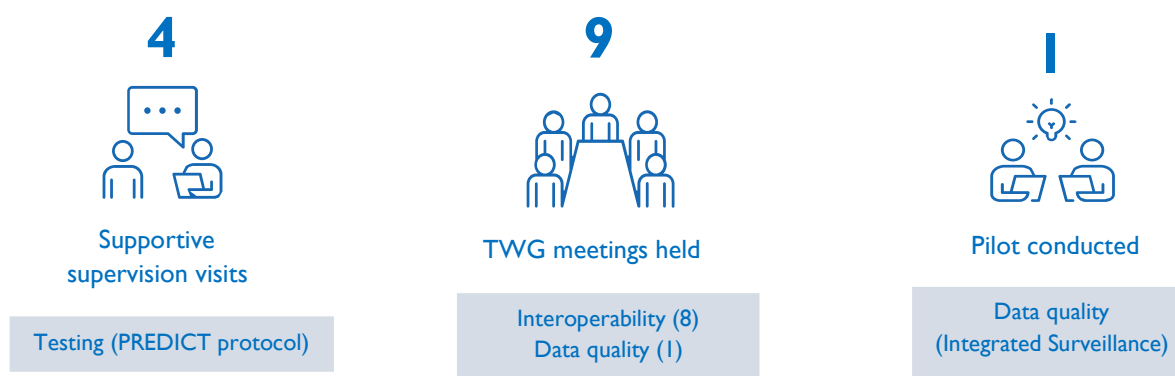
Problems Encountered and Solutions

Problem	Resolution	Status
The planned activities in April could not be fully implemented because of the long Eid al-Fitr holiday, so some activities had to be postponed to May.	IDDS adjusted the timeline.	Resolved
Monitoring and evaluation of the PREDICT implementation in the Center of Public Health Surveillance Laboratory Batam and Ambon had to be postponed because IDDS and the Government of Indonesia instead prioritized the workshop on cross-sectoral integrated surveillance for influenza H5N1 in South Kalimantan.	IDDS adjusted the timeline.	Resolved

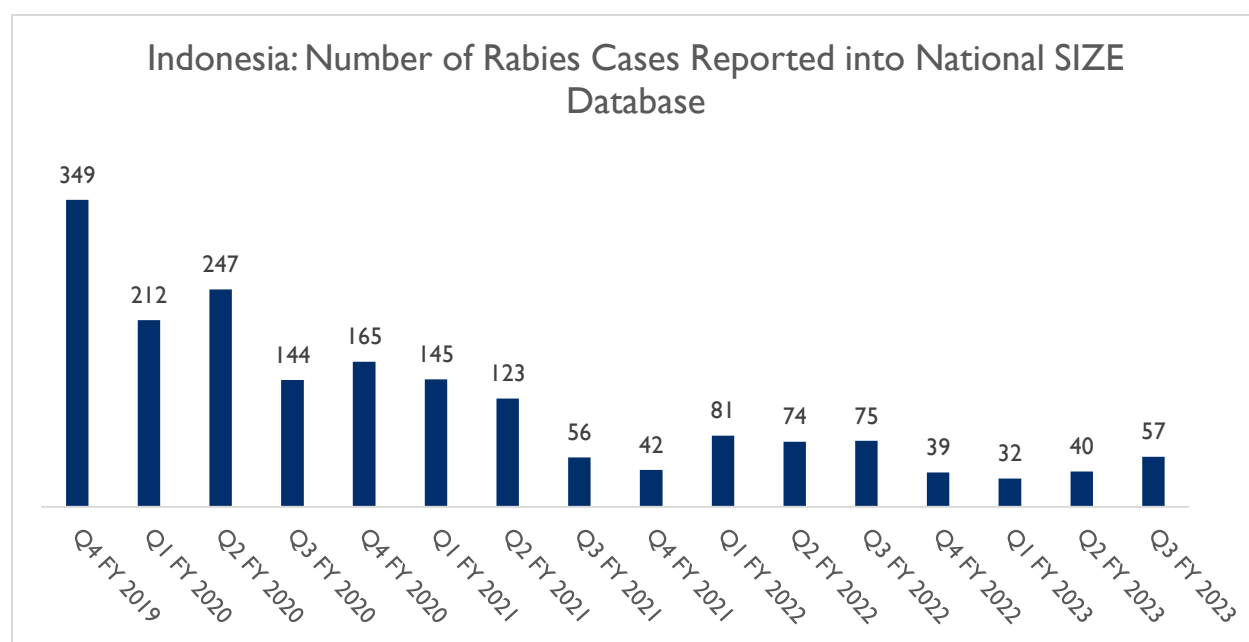
Lessons Learned

- None to report.

FY 2023 Q3 Output Results



FY 2023 Q3 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 national 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 zoonotic diseases under the national One Health program, such as leptospirosis, anthrax, and avian influenza.

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, which previously was only kept in the database for each individual sector. Since baseline, there are several reasons for a decrease in case numbers reported into SIZE:

- There was a decrease in incidence of animal bites leading to suspected rabies cases in humans and an increase in rabies vaccination coverage.
- There was a decrease in available government staff to report cases in SIZE at the district level due to staff shortages and moving health staff to new postings without filling gaps.
- The COVID-19 pandemic drained resources from the overall government budget to support general infectious disease surveillance work. Staff in the health sector of the Government of Indonesia (at all levels) fully participated in controlling the pandemic, and there was a concomitant decrease in reporting cases into SIZE from March 2020 to January 2022.

KENYA

Quarterly Highlights

Diagnostic Highlights:

- IDDS showcased its work during the 10th annual Infection Prevention Network–Kenya Conference in Mombasa. IDDS assisted laboratory technologists from Kitale County Referral Hospital and Murang’a County Referral Hospital to prepare and present four abstracts that illustrated how data has improved AMR surveillance at supported sites.
- IDDS conducted two continuous medical education webinars on select AMR detection and surveillance topics which were attended by a total of 201 health workers.

Surveillance Highlights:

- To strengthen AMR surveillance data analysis and use at the 5 IDDS-supported surveillance sites, IDDS provided refresher training on the use of WHONET to 15 laboratory technologists, quality officers, and health facility antimicrobial stewardship focal persons. Staff are now empowered to analyze and use AMR surveillance data from the sites, which should, in turn, promote the prudent use of antibiotics at the sites.
- To strengthen AMR detection and surveillance at the 5 supported sites, IDDS collaborated with NASIC to convene an AMR forum, which brought together 21 hospital and laboratory staff from the sites (10 female) to share lessons and learn from each other. Participants gave a presentation on their experiences, achievements, and challenges in the implementation of AMR surveillance and discussed issues such as how to improve utilization of laboratory services, how to improve utilization of surveillance data to inform clinical practice, and how to successfully advocate for provision of laboratory commodities, among others. The five supported sites learned valuable lessons from their peers about how they have managed to resolve various challenges and strengthen AMR surveillance.

EVD Highlights:

- To strengthen the supply chain of emergency disease outbreak response supplies, IDDS handed over 36,140 specimen collection, packaging, and transportation supplies to MoH. These included blood specimen collection supplies (e.g., needles, tubes, bandages) and transport commodities (e.g., cooler boxes, ice packs, biohazard zip lock bags).

Problems Encountered and Solutions

Problem	Resolution	Status
Murang’a County has not signed the automated equipment placement contract from the vendor, because it is considering direct procurement. This is likely to delay the acquisition of the	IDDS is continuing to follow up with the county leadership on their progress toward deciding on direct procurement or placement.	In progress

Problem	Resolution	Status
equipment, further affecting the efficiency of testing services at the site.		
IDDS had planned to buy reagents to enable Murang'a County Referral Hospital to conduct training on the use of automated equipment and promote its use following installation. However, Murang'a County has not yet acquired automated equipment (see problem above).	IDDS plans to procure other critical laboratory commodities needed by the site instead.	In progress

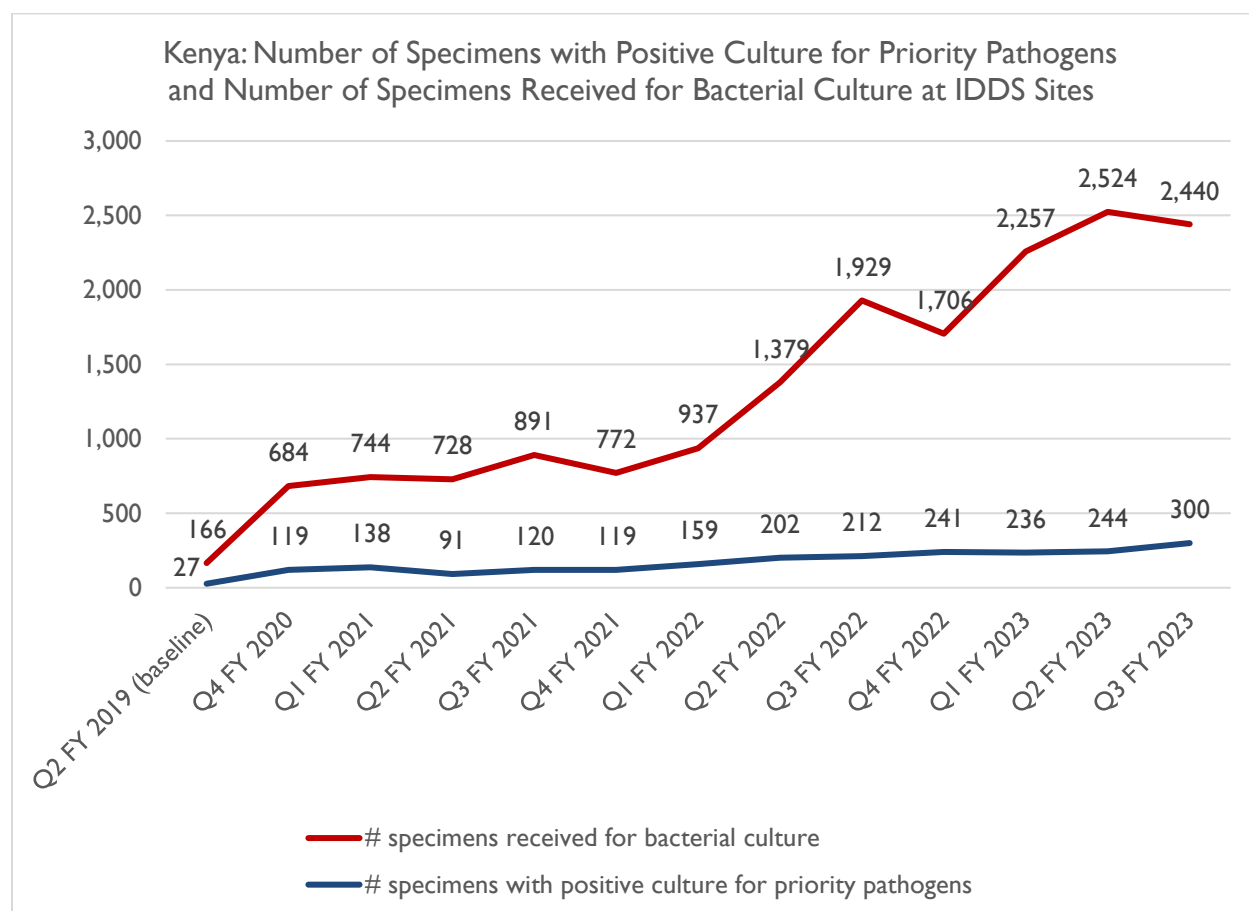
Lessons Learned

- The AMR forum was a powerful tool to strengthen AMR surveillance implementation because the sites learned from their peers about practical aspects of what works and what does not work. The sites also challenged and motivated one another to do better, because they all have similar facilities and face similar challenges. This event was so impactful that IDDS is considering including non-IDDS AMR surveillance sites in this activity in the future.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



IDDS has continued to strengthen capacity for bacteriology testing in five laboratories, 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. In Kenya, this includes *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Acinetobacter* spp., *E. coli*, *Klebsiella* spp., *Pseudomonas aeruginosa*, *Salmonella* spp., and *Shigella* spp. Results in FY 2023 Q3 showed the highest number of specimens with a positive culture for priority pathogens since the program began.

LIBERIA

Quarterly Highlights

Success Stories:

- Collaboration Between Hospital Laboratories in Liberia's Nimba County Reaps Rewards
- Timely Diagnosis of a Drug-resistant Infection at Liberia's Phebe Hospital

Diagnostic Highlights:

- IDDS collaborated with the National Diagnostics Division and provided bacteriology EQA panels to supported laboratories. Participation in EQA schemes helps laboratories enhance patient safety and patient care by preventing laboratory errors and improvement in laboratory testing.
- With technical assistance from IDDS, Ganta Rehabilitation Hospital is referring bacteriology specimens to G.W. Harley Hospital laboratory for testing. Specimens being sent to the laboratory will improve diagnosis and treatment of patients with bacterial infections. This will help fight life-threatening diseases due to AMR, ensure that the bacteriology services established by IDDS at G.W. Harley Hospital are utilized, and show that G.W. Harley Hospital can be used as a referral site for bacteriology testing in the county, thus strengthening the laboratory network.
- Three laboratories gained two stars in the SLIPTA audits. This shows the impact of the mentorship program provided by IDDS and overall improvement of laboratory QMSs. Obtaining a two-star rating indicates improvements in the quality of laboratory services, accuracy of test results, and timely result delivery, with potentials for improved patient care.

Problems Encountered and Solutions

Problem	Resolution	Status
Bacteriology testing at Telleyoyan has been interrupted due to the inability of solar batteries to hold power in the night.	<p>New batteries and a back-up system are needed. IDDS recommended that MoH hospitals take the following steps to resolve the problem:</p> <ul style="list-style-type: none"> • Procure and install new batteries for the solar system (32 pieces of 12v/200-amp maintenance-free lead acid batteries or lithium batteries). • Procure and install an additional six 340-watt and five 290-watt solar panels and incorporate them into the system to complete the series. • Procure and install two charge controllers to accommodate the additional panels. • Put in place a back-up system that can charge the batteries to avoid them being depleted completely in the absence of solar energy (generator or hydroelectricity). • Approach other donors for funding. 	Not addressed

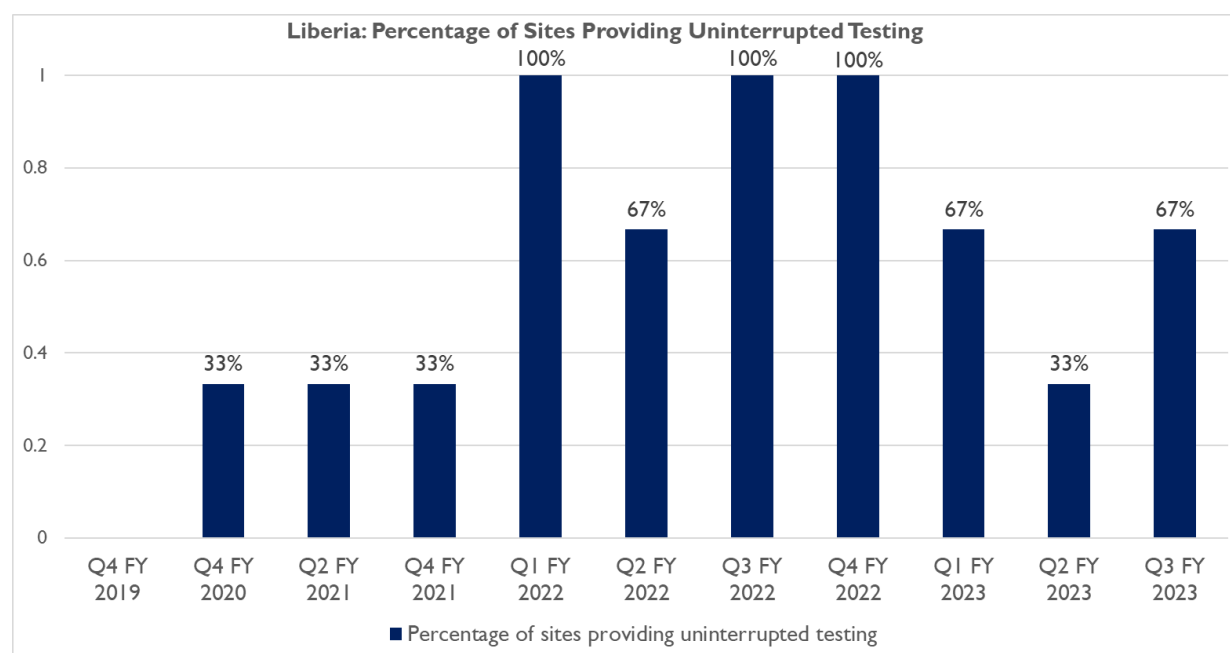
Lessons Learned

- EQA participation motivates laboratory staff to be more focused on providing quality services at all times, because they can see their contributions to appropriate patient care.
- Building strong quality teams at each laboratory, with the quality officer as champion, ensures improvement in QMS implementation.

FY 2023 Q3 Output Results

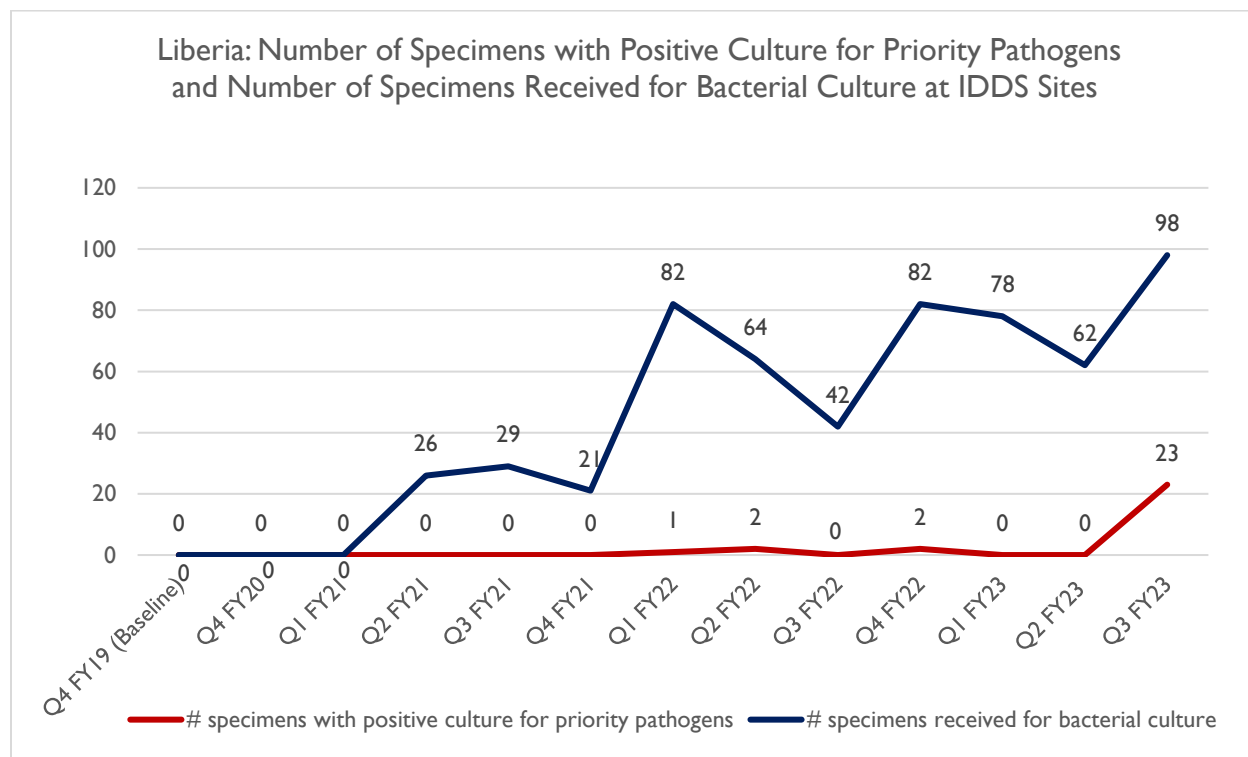


FY 2023 Q3 Outcome Results



Liberia has been working towards a target of 100 percent uninterrupted service rate across the three IDDS-supported laboratories. During FY 2023, two Liberia laboratories, namely Tellewoyan and G.W. Harley Hospital, experienced power shortages, which are the cause of service interruptions. Also starting in early FY 2023, the solar panel system at Tellewoyan laboratory broke down and could not provide the

electricity the laboratory needs to operate. This problem continued into Q3 FY 2023 and explains the 67 percent rate, but it is important to note that this figure is still an increase from the previous quarter.



IDDS has continued to strengthen capacity for bacteriology testing in the three supported laboratories, 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. In Liberia, this includes *Staphylococcus aureus*, *E. coli*, *Klebsiella* spp., *Pseudomonas aeruginosa*, and *Neisseria gonorrhea*. Since early FY 2023, Tellewoyan has not been able to do culture testing because of a power supply issue.

MADAGASCAR

Quarterly Highlights

Diagnostic Highlights:

- To standardize procurement processes, IDDS developed a management guide for laboratory supplies and medical imaging units of public hospitals, which was validated in FY 2023 Q3. By providing formal purchasing recommendations and vital information on revenue management, the guide will prevent stockouts and enhance the quality of patient management, as well as ensure better alignment between resources, needs, and overall public health goals.

Surveillance Highlights:

- To provide policymakers with a comprehensive understanding of trends in infectious diseases, IDDS successfully completed the development of the 2022 Annual IDSR Bulletin. The bulletin enables policymakers to devise targeted strategies, prioritize resources, and implement effective prevention, control, and response measures. This publication serves as a cornerstone for evidence-based decision-making.

Problems Encountered and Solutions

Problem	Resolution	Status
The current funding and period of performance is insufficient to meet the needs of all 24 laboratories in the Madagascar Network of Laboratories (RESAMAD network) that the project had originally planned to support.	In coordination with in-country partners and USAID, IDDS has refocused its efforts to support two to four laboratories in the Mahajanga region with intensive bacteriology testing and AMR surveillance support.	Resolved

Lessons Learned

- None to report.

FY 2023 Q3 Output Results

42



People trained

Testing

3



Supportive
supervision visits

Testing

1



TWG
meeting held

Commodity management

MALI

Quarterly Highlights

Diagnostic Highlights:

- To provide a comprehensive understanding of diagnostic capacity in Mali, IDDS completed a mapping activity. By completing data collection for 47 laboratories in the final 5 regions, IDDS has now completed the laboratory capacity mapping for the entire country, which involved a One Health approach. The final deliverable will contribute to the establishment of a laboratory network and the optimization of the SRS. By having these data, the country will be better equipped to coordinate and allocate resources effectively, leading to improved laboratory services and response capabilities.
- To enhance staff capacity for continuous QMS improvement, IDDS facilitated the visit of a QMS expert to two laboratories. The purpose of the visit was to establish the basic audit score and evaluate the readiness of these laboratories for accreditation according to the ISO 15189:2012 standard. By meeting international quality standards, these laboratories can ensure the provision of accurate and reliable testing services, ultimately improving patient care and public health outcomes.

Surveillance Highlights:

- To equip health staff with enhanced skills and knowledge to detect, report, and investigate cases of diseases and events under surveillance, IDDS conducted one IDSR training session in the Kadiolo health district. By improving their capabilities, the health staff will contribute to enhancing the country's surveillance indicator D2.2. score, which is a vital measure of the country's disease surveillance system's effectiveness.
- To build a robust and efficient disease surveillance system at the local level, IDDS and DGSHP conducted 25 CBS supervision and coaching visits in the Kati, Kangaba, Kadiolo, and Kolondieba health districts. Through these visits, the staff in these districts have developed increased capacities in using surveillance tools, coding forms correctly, identifying community cases, and actively tracking and investigating suspected infectious diseases. These strengthened skills and practices lead to more effective and timely reporting and treatment, ultimately improving the overall surveillance and response capabilities of the health districts.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- None to report.

FY 2023 Q3 Output Results

36



People trained

Electronic reporting systems

25



Supportive
supervision visits

Electronic reporting systems

1



TWG meeting held

Testing and food safety

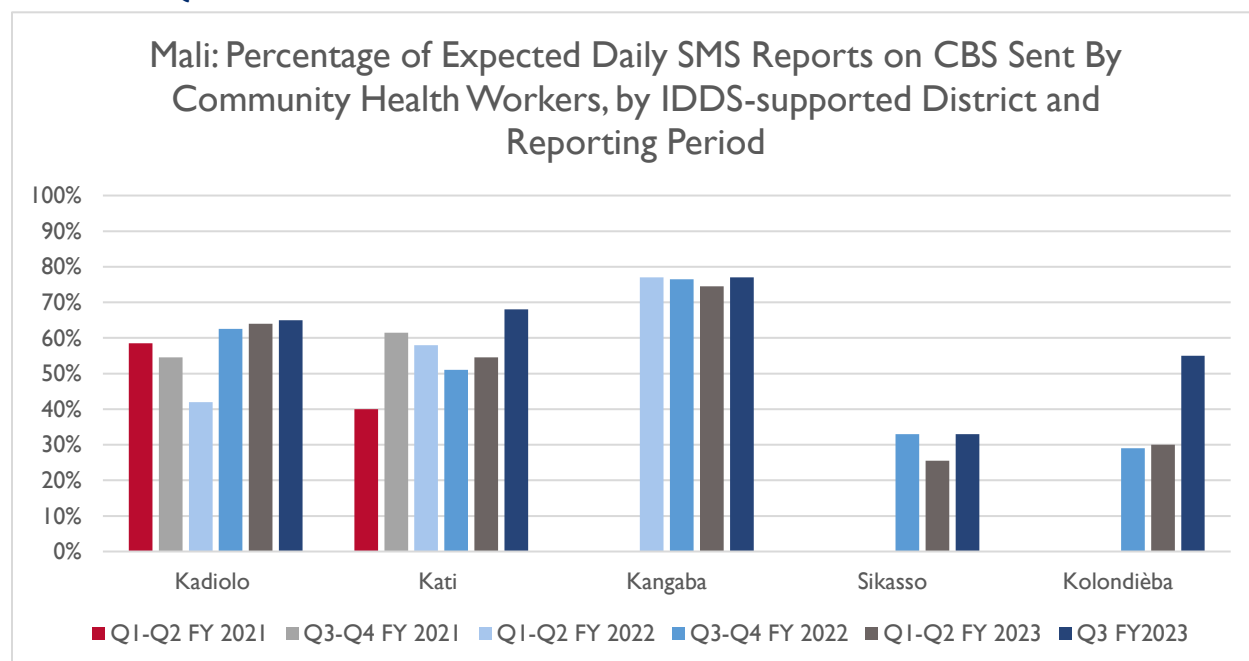
15,409



Visits to national web-
based surveillance
platform

Data analysis and use

FY 2023 Q3 Outcome Results



In FY 2023, 330 CHWs from 5 IDDS-supported districts are actively reporting on suspected disease cases and events/conditions through the CBS system via SMS notifications that IDDS helped to establish and roll out. Each district expects one SMS daily to be sent from each community health worker if they identified a notifiable disease or event, as defined by the national CBS guidelines, and when none are

identified. Prior to FY 2021, none of the five supported districts were reporting CBS data. In FY 2023 Q3, IDDS collaborated with MoH to provide CBS supervision, which may have resulted in slightly improved SMS reporting rates; improvements from prior periods are most notable in Kolondieba district.

IDDS started implementing SMS reports for CBS 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, community health worker turnover, inconsistent daily monitoring of community health workers by district and community health center staff due to resource limitations, and irregular payments to the workers by MoH. SMS reporting rates in Kangaba district are consistently higher than other districts, in part because they have well-functioning phones and some experience working on the border with detecting Ebola cases.

PHILIPPINES

Quarterly Highlights

Diagnostic Highlights:

- To identify gaps, challenges, and technical assistance needs for each sector and concur on IDDS's proposed GHS activities, IDDS organized or participated in eight coordination meetings with government stakeholders (e.g., Department of Agriculture, Department of Energy and Natural Resources, Department of Health, Research Institute for Tropical Medicine) and other collaborators (e.g., University of the Philippines–Philippine Genome Center, Food and Agriculture Organization of the United Nations).

COVID-19 Diagnostic Highlights:

- To strengthen the COVID-19 specimen referral network, IDDS and the Isabela Provincial Epidemiology and Surveillance Unit trained 11 trainers (9 female) on COVID-19 specimen collection, handling, packaging, and transport. These 11 trainers then trained 41 health care workers (40 female) from Maconacon Island in Isabela province, a geographically isolated and disadvantaged area.

Problems Encountered and Solutions

Problem	Resolution	Status
GHS: Following the consultation meetings held with stakeholders, IDDS determined that one activity in the approved work plan (NTW-3) was no longer aligned to national priorities.	IDDS developed a proposal for an alternate activity, which will be submitted to USAID in Washington, DC, for approval in early FY 2023 Q4.	In progress
GHS: Implementation of activities has been delayed due to a moratorium imposed by the Department of Health on government engagement in activities in the human health sector that were not in support of a school-based immunization program. The moratorium ran from May 1 to July 15. Due to Department of Health personnel being engaged with the vaccination campaign, all implementing partner activities in the human health sector were placed on hold until mid-June, in accordance with the department's guidance.	IDDS conducted a series of meetings with collaborators in other sectors (e.g., the Department of Agriculture, Department of Environment and Natural Resources, academia) to plan for carrying out work plan activities with a comprehensive One Health approach.	Resolved
ARP: An introductory course on biosafety and biosecurity was initially planned in collaboration with the Research Institute for Tropical Medicine. However, due to competing priorities	This training was cancelled, and the allocated funds were used to support additional procurement and a handover ceremony in	Resolved

Problem	Resolution	Status
within the organization, the Research Institute for Tropical Medicine was unable to provide a full set of trainers within IDDS's period of performance.	Cotabato City, Bangsamoro Autonomous Region.	

Lessons Learned

- Proper coordination and collaboration with the involved stakeholders from the different sectors are critical to successful implementation of the project's activities. This ensures that relevant stakeholders understand the scope and scale of activities and that activities are streamlined and harmonized to avoid duplication. It is also important to ensure that their priorities are taken into consideration when planning for project activities, because this is one way to secure their support for the project.

SENEGAL

Quarterly Highlights

Success Story:

- IDDS Enhances Laboratory Quality Management in Senegal

Diagnostic Highlights:

- In a key step for operational planning and implementation of AMR surveillance, IDDS provided technical and financial assistance to DoL to officially designate NRL, national reference centers, and sentinel sites that will be included in the national AMR surveillance system.
- To improve quality management, IDDS trained 33 laboratory staff from 15 laboratories, 9 of which were IDDS-supported, in various topics that are critical for accreditation readiness.

Surveillance Highlights:

- To improve surveillance of events of public health importance, IDDS supported MoH and DoP to relaunch the national EBS system, using tools, guidelines, and SOPs developed by IDDS during FY 2023 Q2.
- To assess implementation progress, IDDS, in collaboration with the Pasteur Institute and DoP, conducted supportive supervision visits to two newly established sites in the extension of the Senegalese Syndromic Sentinel Surveillance network.

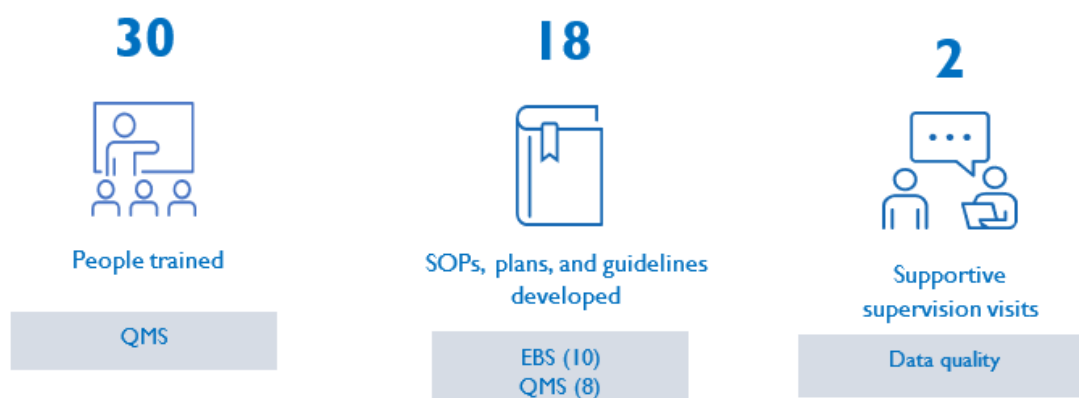
Problems Encountered and Solutions

Problem	Resolution	Status
The activity to establish/improve the national EQA program has been delayed due to the election. DoL staff were off during June and were not able to organize the EQA round planned for FY 2023 Q3.	IDDS held two meetings with DoL to discuss how to organize an EQA cycle for IDDS-supported laboratories that are performing bacteriology testing. During the meetings, IDDS and DoL developed the terms of reference and agreed to conduct the activity in FY 2023 Q4.	Resolved

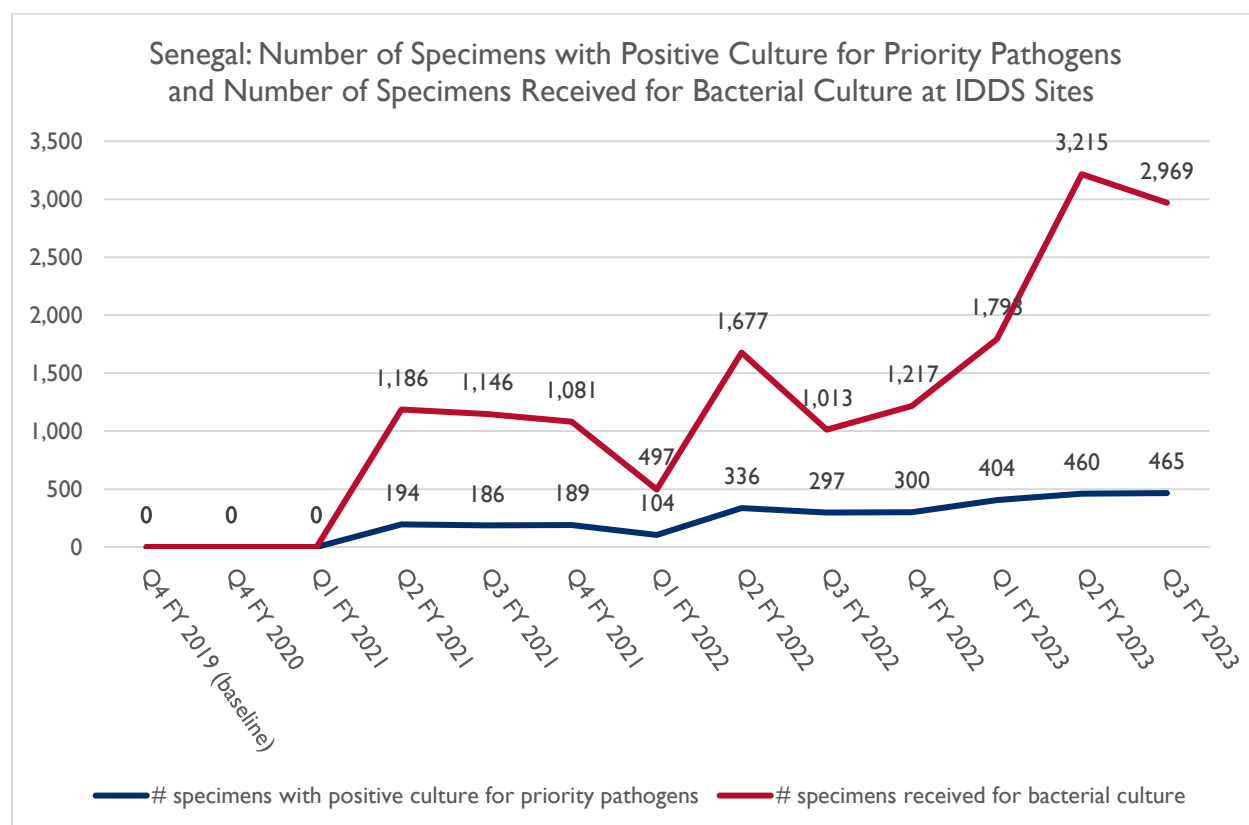
Lessons Learned

- None to report.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



IDDS is continuing to strengthen the capacity in Senegal for bacteriology testing in nine district laboratories. In FY 2021 Q2, 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 (for a total of eight laboratories) leading to an increase in specimen received for testing and positive cultures in FY 2023 Q2. Therefore, the data from FY 2023 Q2 and Q3 are from eight IDDS-supported laboratories.

The ninth has not yet begun culture and AST due to ongoing site construction. Only bacterial priority pathogens listed by the national government are reported for this indicator, which in most reporting periods included *E. coli*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, and *Enterobacter* spp. Results for FY 2023 Q3 show the highest number of specimens with a positive culture for priority pathogens since the program began.

TANZANIA

Quarterly Highlights

Success Story:

- IDDS Champions the use of AMR Data in Tanzania as Part of Efforts to Improve International Health Regulations Core Capacities

Diagnostic Highlights:

- None to report.

Surveillance Highlights:

- IDDS collaborated with the President's Office for Regional Administration and Local Governments to initiate referral of priority AMR specimens to IDDS-supported testing laboratories from peripheral facilities within their catchment areas. By capturing specimen referrals from peripheral laboratories that were previously unsupported, IDDS has expanded the geographic coverage of laboratory services for AMR detection in supported communities, which will lead to AMR data and antibiograms that will be more representative and generalizable to the community so that the data can be used to guide clinical decisions in lower-tier facilities.

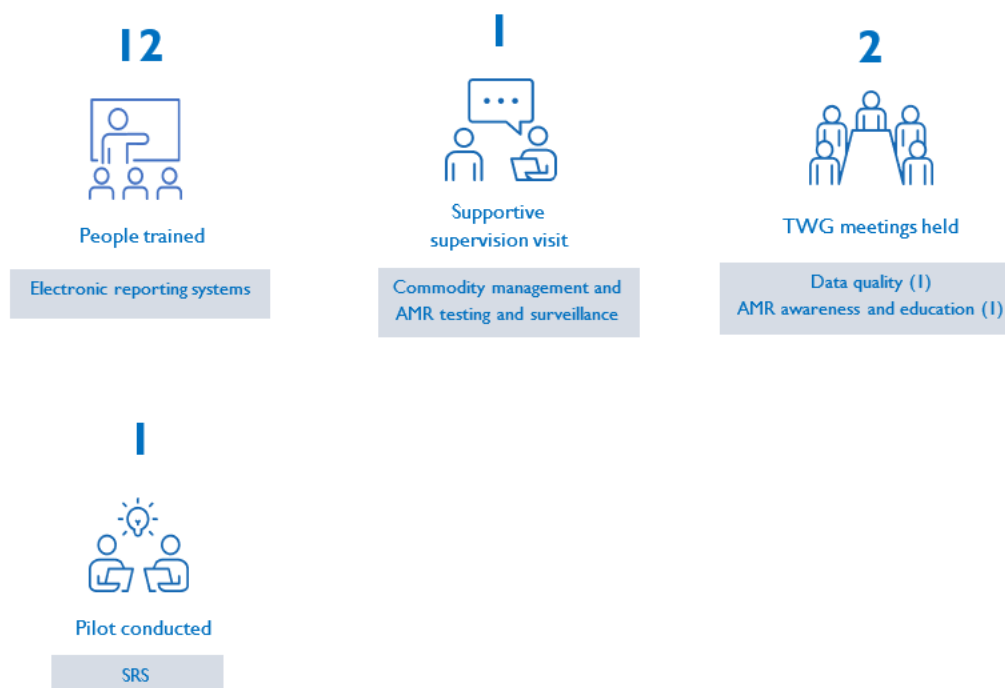
Problems Encountered and Solutions

Problem	Resolution	Status
There are inadequate resources (human, equipment, and supplies) at subnational facilities to sustainably conduct AMR testing and surveillance.	IDDS conducted routine supportive supervision, mentorship, and refresher training to enhance the capacity of staff to conduct AMR testing, perform data analysis, and report their data to national and global reporting systems. IDDS plans to further engage with hospital management teams to allocate resources that support the testing laboratories with adequate diagnostics, supplies, and reagents to sustain AMR surveillance activities at the surveillance sites.	In progress

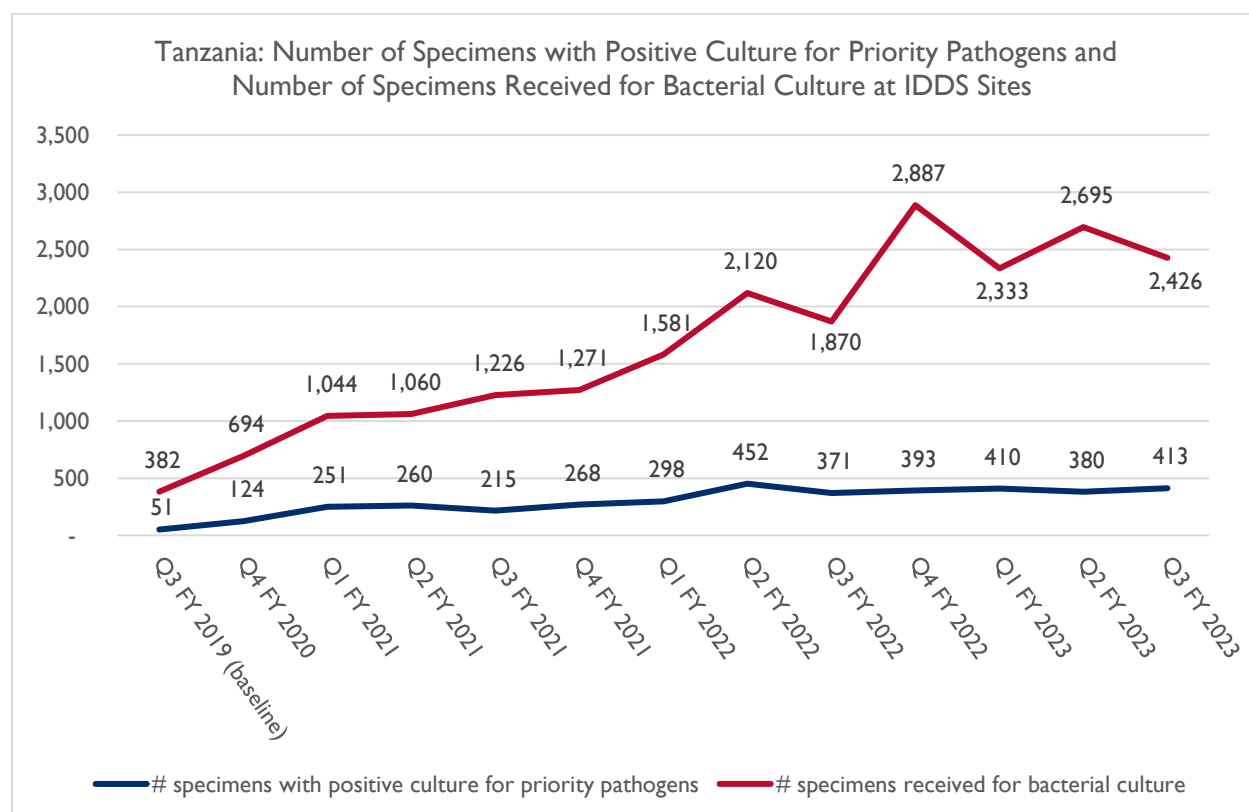
Lessons Learned

- Engagement with hospital laboratory management teams is needed to support the testing laboratories with adequate diagnostics, supplies, and reagents to sustain AMR surveillance activities at the surveillance sites.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



IDDS is strengthening the capacity in Tanzania for bacteriology testing at four sites, including one zonal laboratory and three regional referral hospital laboratories, which the project has consistently supported since baseline. There is some fluctuation in the number of specimens received and the number that tested positive for priority pathogens but the general trend is upward for both. Though the IDDS-supported sites experience occasional stockouts of reagents or supplies, the sites are able to continue providing uninterrupted testing services, including during this current reporting period. 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*, and *Salmonella* spp.

UGANDA

Quarterly Highlights

Success Stories:

- IDDS Introduces Electronic Tool for Indicator-based Surveillance Reporting in Uganda's Animal Health Sector
- IDDS Supports Uganda Plan for Accrediting Animal Health Laboratories

Diagnostic Highlights:

- In a key step toward achieving laboratory accreditation, IDDS secured commitments from the leadership of the Queen Elizabeth National Park Laboratory and the Mbale Regional Animal Disease Diagnostics and Epidemiological Center to support an IDDS-developed laboratory accreditation plan for the two sites.
- To provide technical assistance and supervision for quality improvement, the project conducted the first accreditation mentorship cycle at 3 facilities, during which 13 people (4 female) participated in aligning laboratory documents to ISO 17025:2017 requirements and creating an organogram. IDDS then conducted the second accreditation mentorship cycle at the same 3 sites, during which 12 people (4 female) focused on conducting root cause analysis for problems identified during a baseline audit, suggesting corrective actions, and improving document archival systems.

Surveillance Highlights:

- To improve data validity and ease analysis, IDDS provided technical and financial support to NADDEC to roll out an upgraded digital data entry and analysis tool for reporting IBS data in 34 districts. The new tool replaces a paper-based system and will save time and improve data quality.

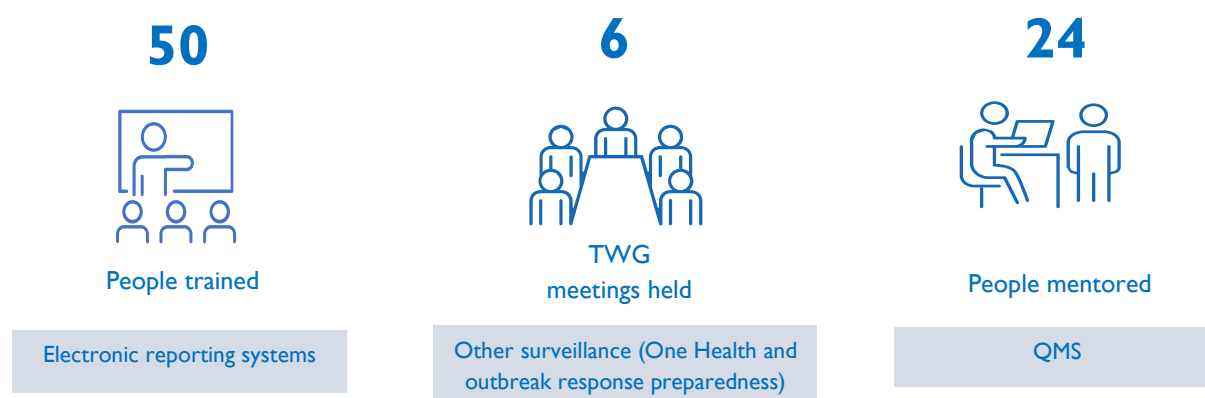
Problems Encountered and Solutions

Problem	Resolution	Status
Only 16 (14 percent) out of the 116 districts invited to participate virtually, participated in the workshop on rolling out the upgraded Excel reporting tool, and 18 (90 percent) out of 20 districts invited to participate in person, participated in the rollout.	IDDS held follow-up calls with districts and shared the upgraded tool and user manual through email.	In progress

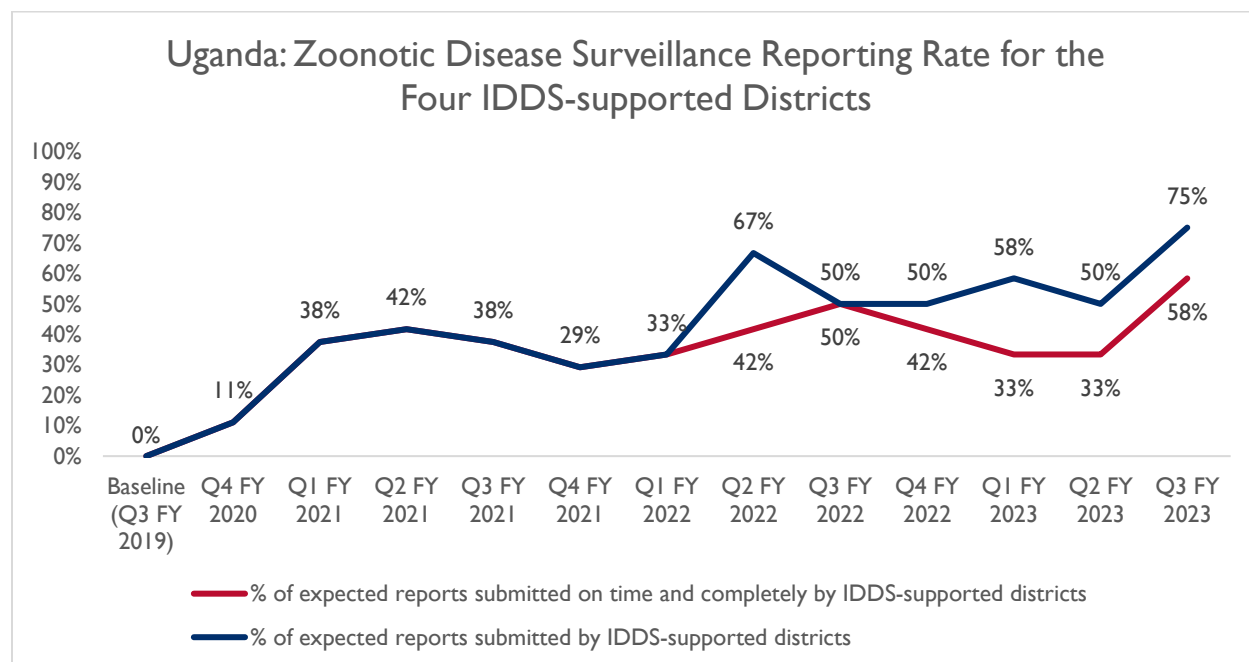
Lessons Learned

- Virtual engagements are not popular among people at the subnational level because they present Internet connectivity challenges, and it is harder to troubleshoot issues virtually. Also, trainees are subject to work-related interruptions, especially if they attend online meetings or training in their offices. IDDS learned that on-site mentorship provides a better basis for knowledge transfer than virtual mentorship and provides the opportunity for evidence-based learning from subject matter experts to solve complex requirements and aid implementation.

FY 2023 Q3 Output Results



FY 2023 Q3 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. In June 2023, IDDS provided technical and financial support to NADDEC to roll out the upgraded tool for reporting IBS data to 34 districts. Some of the surveillance sites started using the revised tool for monthly reporting in June. NADDEC will continue to follow up and ensure that the districts that were unable to participate in the rollout of the upgraded Excel tool begin utilizing it for reporting. The initial pilot of the data entry and analysis tool has resulted in an increase in reporting rates and also facilitated tracking of timeliness of report submission.

VIETNAM

Quarterly Highlights

Success Story:

- Stopping Anthrax in Vietnam

Diagnostic Highlights:

- To control the spread of recent anthrax outbreaks in Dien Bien and Lai Chau provinces, IDDS partnered with NCVD to provide guidelines, training materials, and standard packaging materials to the provincial SDAHs. Ensuring the secure transportation of specimens to the laboratory for testing is of utmost importance when working to control the spread. Even though the provinces were not part of the IDDS pilot sites, the project's previous successful collaborations with NCVD prompted the agency to seek IDDS assistance.

Surveillance Highlights:

- Recognizing the success of IDDS efforts to extend VAHIS use to the district level, which has improved the completeness, accuracy, and timeliness of animal disease reporting, the Department of Animal Health (DAH) proposed to use Pandemic Funds (provided by the World Bank) to scale the model nationwide. DAH consulted regional animal health office (RAHO) staff on the IDDS model to extend VAHIS use to the district level, and the government is now seeking additional funds for the national expansion.

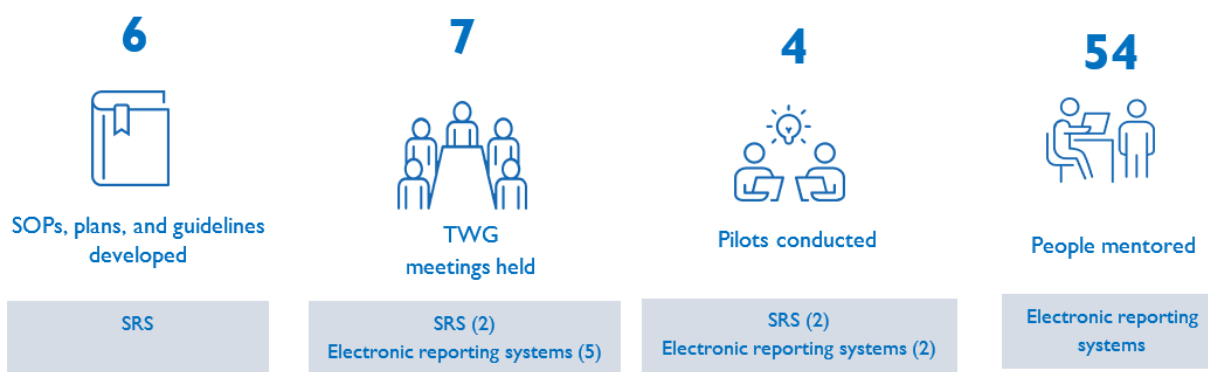
Problems Encountered and Solutions

Problem	Resolution	Status
The performance of the specimen management software developed by IDDS for the animal health sector has fallen short of expectations. Its usage in provinces has been limited, due to challenges in connecting with the software at RAHOs.	DAH requested that NCVD develop a software solution that can be utilized by all RAHOs and their laboratories. After the software is fully developed and utilized at RAHOs, IDDS will be able to work toward finding a solution to electronically connect specimen referral data from provincial SDAHs to RAHOs. At present, IDDS is prioritizing software optimization for the Binh Dinh Center for Disease Control, which handles the largest volume of specimen transportation and stores the corresponding information within the software.	In progress (IDDS is working with an information technology technician to upgrade the software for Binh Dinh Center for Disease Control. The progress of follow-up activities in the animal health sector relies on the completion of the software.)

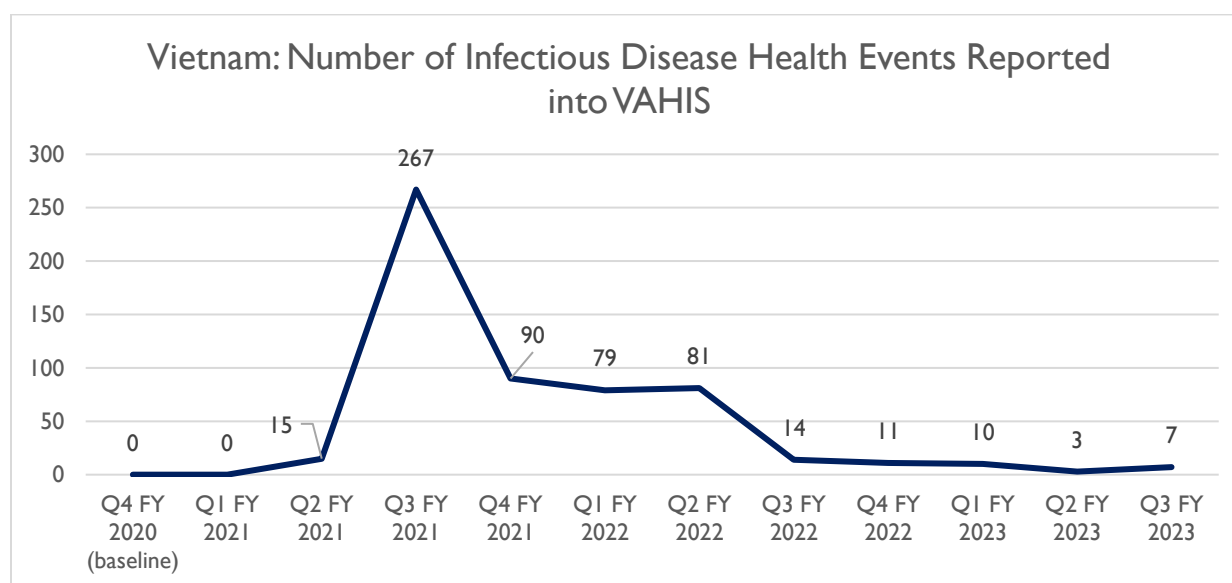
Lessons Learned

- It is essential for IDDS to be prepared for any new decisions made by the government. For example, related to the project activity of optimizing the specimen information management system being piloted in three IDDS-supported provinces, DAH changed its priority to developing a national information system, which includes many other areas of information to serve various needs of the animal health sector. As a result, IDDS now focuses on optimizing the current IDDS-supported specimen information management system for the human health sector, while waiting to learn more from DAH about their needs for support in the animal health sector. To ensure the effective execution of the project, IDDS has remained flexible and willing to make necessary changes to the work plan to align with government requests and shifting priorities.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



Five provinces are piloting reporting infectious disease health events into VAHIS: Thai Nguyen, Binh Dinh, Khanh Hoa, Can Tho, and Dong Thap. The spike in FY 2021 Q3 was driven by outbreaks in avian influenza, foot and mouth disease, African Swine Fever, and lumpy skin disease in Thai Nguyen and Binh

Dinh provinces. Since then, there has been a steady decline in the number of events reported, which could be due in part to the completion of a vaccination campaign for African Swine Fever and lumpy skin disease in FY 2022. In FY 2023 Q3, three provinces reported seven events into VAHIS. Thai Nguyen province reported five events: one case of foot and mouth disease and four cases of lumpy skin disease. Khanh Hoa province reported one case of African Swine Fever. Dong Thap province reported one case of rabies.

Integrated Disease Surveillance and Response FY 2023 Q3 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 and was completed this quarter. (An “IDSR-2” work plan was approved with a period of performance identified as April 10–December 31, which also includes work by IDDS HQ. Uganda did not have activities to report this quarter.)

Quarterly Highlights

Surveillance Highlights:

- In Cameroon, IDDS held 10 weekly data quality review meetings and provided additional supervision for districts with low IDSR performance that are prone to outbreaks. These underperforming districts had not received supervision support for IDSR in more than one year, which is a gap that IDDS was able to fill in this quarter. As gaps were identified during supervision visits, health authorities were able to implement changes to improve the quality of data analysis and interpretation.
- In Senegal, IDDS conducted training on the third edition of the IDSR guidelines in the Bakel health district and held a data review meeting for 28 nurses, midwives, surveillance officers, and physicians (19 female) from all 7 health districts in the Tambacounda region. The training equipped frontline health care workers involved in epidemic prevention and control. The data review meeting was significant because it was the first comprehensive review of data across health districts in more than one year, because various health sector strikes prevented consistent and comprehensive sharing of data until this quarter.

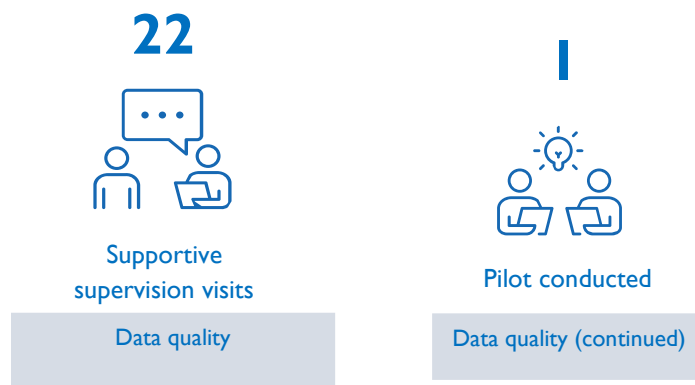
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- None to report.

FY 2023 Q3 Output Results for Cameroon



FY 2023 Q3 Output Results for Senegal



U.S. President’s Malaria Initiative FY 2023 Q3 Achievements

CAMBODIA

Quarterly Highlights

Diagnostic Highlights:

- To illustrate the landscape of malaria diagnostic services, resources, capacities, and policies, IDDS conducted a PCR assessment. The assessment identified the status of CNM’s laboratory in terms of PCR capacity and identified opportunities for improvement. In addition, IDDS found the Kampong Cham referral hospital laboratory to be a potential regional PCR laboratory for CNM in terms of infrastructure, human resources, and commitment from the site. This finding is important for improving the capacity of CNM laboratory staff to identify the malaria species so that clinicians can promptly initiate treatment and contribute to malaria elimination in Cambodia.

Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

Lessons Learned

- None to report.

Tuberculosis FY 2023 Q3 Achievements

CORE TB

Quarterly Highlights

Success Stories:

- IDDS Supports Multinational TB Workshop on Drug Susceptibility Testing
- IDDS Simplifies TB Drug Susceptibility Testing by Equipping Two Laboratories in Uganda

Diagnostic Highlights:

- To support implementation and training of super-users for Xpert MTB/XDR testing, IDDS developed training modules and a monitoring and supervision checklist. IDDS finalized the modules after inputs from USAID and the Stop TB Partnership. These modules will be disseminated to other countries using the Xpert MTB/XDR assay.
- IDDS helped install two GeneXpert 10-color instruments at high-volume sites in Uganda—the Lira and Mbarara regional hospitals in June—and provided on-site training of 29 health workers (5 female) on use of Xpert MTB/XDR assay.
- IDDS supported a DST training workshop for more than 100 key stakeholders from more than 20 countries in Addis Ababa, Ethiopia in June, bringing together a wide range of stakeholders, including NTPs, NTRLs, diagnostic and treatment developers, technical assistance providers, laboratory experts, donors, and USAID staff. The workshop helped identify key gaps and challenges in assessing first and second-line DST for DR-TB patients and will help devise strategies to introduce and scale up second-line DST for new and repurposed drugs in high TB burden countries.
- To ensure the quality of Truenat testing, IDDS procured EQA panels for Cambodia, DRC, Kenya, Tanzania, Malawi, and Zimbabwe for three Truenat EQA cycles in 2023. IDDS also procured Xpert MTB/XDR EQA panels for Malawi, Cambodia, and Zimbabwe to support the implementation of Xpert MTB/XDR testing.
- To improve testing quality, IDDS enabled super-users to conduct supportive supervision visits to all 38 Truenat sites in Nigeria on May 5–15.

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

Problems Encountered and Solutions

Problem	Resolution	Status
Truenat EQA scores were low in DRC and Zimbabwe.	IDDS HQ and country team members collaborated to develop an end user refresher training workshop agenda for use in these two countries. The refresher training	In progress

Problem	Resolution	Status
	was completed in Zimbabwe and is planned in DRC (pending field work plan and budget approval).	
In Uganda, delivery of commodities was delayed due to slow response of vendors to requests for information.	IDDS engaged vendors and explained information requirements; information continues to be collected and processed.	In progress
Multiple actors support diagnostic network optimization activities, and NTPs and NTRLs are often unaware of the differences in the offerings.	IDDS worked with USAID and NTRLs to identify other ongoing processes and suspended the plan to complete an LNSA in Pakistan, due to work by FIND conducted for diagnostic network optimization. IDDS staff participated in debriefing a diagnostic network optimization activity in Zimbabwe to ensure that recommendations of the optimization activity and IDDS LNSA were in alignment. IDDS will continue to monitor other optimization exercises and will work with USAID to determine the process that best suits the needs of each country.	In progress

Lessons Learned

- Remote mentoring for laboratory accreditation activities is possible and provides a cost-effective alternative when necessary to accommodate the activities.

FY 2023 Q3 Output Results

281



People trained

Pediatric TB (66)
 Biosafety and biosecurity (70)
 Testing skill and procedure (14)
 New diagnostic tool- GeneXpert 10-color
 and Truenat (131)

2

SOPs, plans, and guidelines
developed

Other- Drug Resistant Survey
 protocol and sentinel surveillance
 protocol

46

Supportive
supervision visits

New diagnostic tool- GeneXpert 10-
 color and Truenat (39)
 Pediatric TB (7)

2

TWG
meetings held

Pediatric TB

4

Assessments
completed

Truenat (1)
 TB DNA (3)

12



People mentored

QMS

BANGLADESH

Quarterly Highlights

Diagnostic Highlights:

- IDDS facilitated the process for NTP to obtain pure bedaquiline, a medicine used to treat MDR-TB, from NIH. The availability of bedaquiline will allow NTP to initiate DST for bedaquiline throughout reference laboratories.
- To build capacity for TB and DR-TB detection, IDDS finalized and submitted the combined SOP (including algorithms) for Xpert MTB/RIF Ultra and Xpert MTB/XDR. Using the SOP, IDDS will train a national pool of trainers, who in turn will train all medical technologists.
- With continued IDDS support for Truenat implementation and EQA, the 38 Truenat sites in Bangladesh demonstrated their competency through their combined scores from all three cycles of EQA (results received in Q3). Across all three cycles of EQA completed by the 38 sites between November 2022 and March 2023, the combined scoring shows that 26 sites earned a “Pass” grade (90–100 percent), 6 sites received an “Acceptable” grade (85–90 percent), and 6 sites received a “concern” grade (<85 percent).

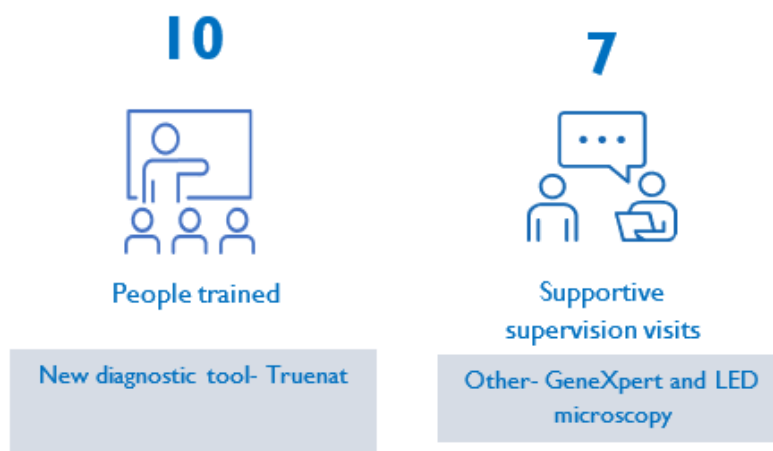
Problems Encountered and Solutions

Problem	Resolution	Status
Implementation of Truenat and GeneXpert activities was delayed due to the extended time needed for custom clearance for items procured from outside the country.	IDDS engaged in continuous follow-up with NTP. All items received customs clearance.	Resolved
USAID issued a policy in February that does not allow payment of per diem stipends to government staff. Since this policy conflicts with the Bangladesh government’s policy, NTP declined to approve training proposed by IDDS, causing implementation delays.	IDDS held discussions with NTP, which confirmed that it cannot approve training unless USAID’s per diem policy is consistent with the Bangladesh government’s policy. All USAID TB implementing partners informed USAID of the problem and requested a solution. USAID is actively considering this issue and is expected to provide guidelines.	In progress

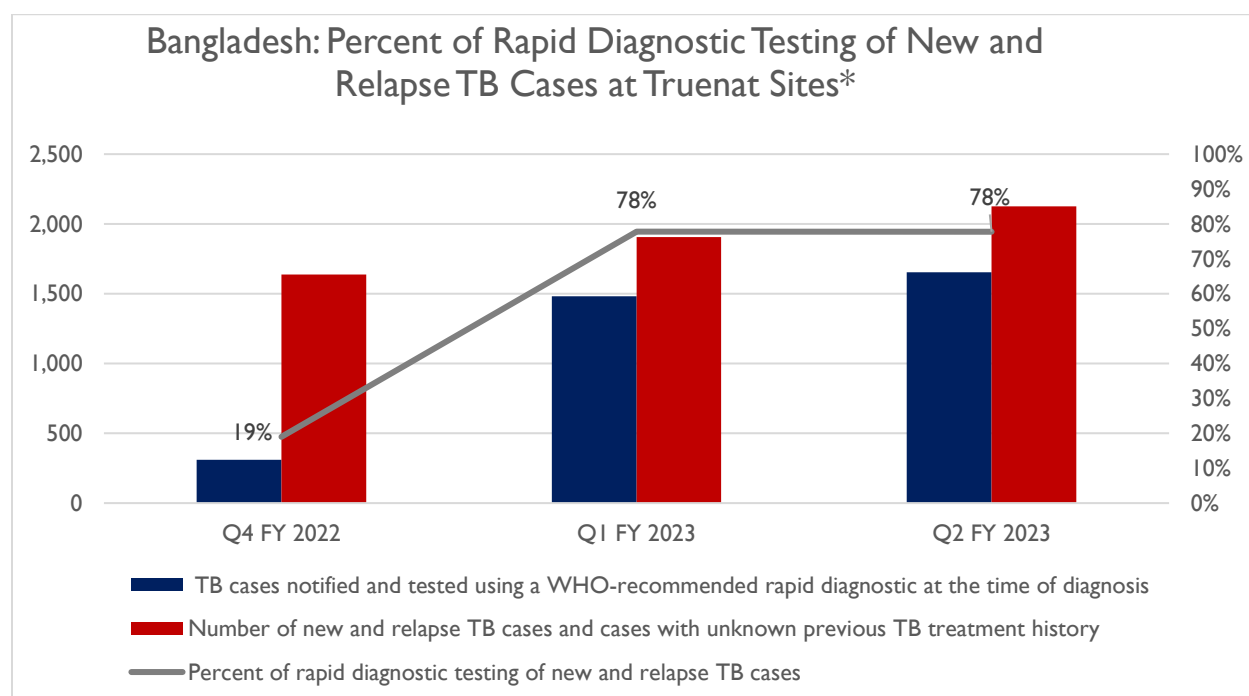
Lessons Learned

- Basic training alone is not sufficient for developing proficiency of laboratory staff on a new diagnostic tool like Truenat. Refresher training and monitoring and supervision is key to maintaining and improving staff skills.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



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

Despite reported challenges with Truenat implementation due to procurement delays, IDDS was able to support the rollout of this new testing technology and increase rapid diagnostic testing of new and relapse TB cases registered in those sites, from 19 percent in FY 2022 Q4 to 78 percent in FY 2023 Q2.

BURMA

Quarterly Highlights

Diagnostic Highlights:

- To help NTP plan for TB diagnostic network expansion and strengthening, IDDS led a technical group to analyze coverage and utilization of GeneXpert and chest X-ray instruments nationally. The findings and recommendations were shared with TB stakeholders to guide planning and procurement of GeneXpert instruments and digital X-ray instruments.
- IDDS, in close collaboration with WHO, provided technical assistance to NTP and UNOPS to identify efficient and feasible power supply options for GeneXpert sites to optimize testing capacity during extended power outages. IDDS provided this support in response to severe power outages and high ambient temperature that greatly affected GeneXpert testing capacity across the country. Existing UPS units at the GeneXpert sites are intended for short-term use only, and they are not able to provide power for air conditioning units. NTP is experiencing frequent module breakdowns from operating the instruments during the summer.
- IDDS provided technical assistance to NTRL in updating six SOPs (on topics including biosafety, pipette use, liquid culture, and first-line DST) and developing three new SOPs (on stool specimen management and testing using GeneXpert, as well as use of Truenat) to align with current global guidelines and recommendations.

Problems Encountered and Solutions

Problem	Resolution	Status
On October 28, 2022, the State Administration Council enacted a new organization registration law that 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, because the memorandum of understanding renewal process is still ongoing.	In progress
The new MoH and NTP leadership has imposed strict and unpredictable instructions on TB implementing partners. The approval process is not yet well defined, and there is still no successful organization to receive official approval for	The IDDS coordination consultant and the project's program specialist are closely following up with Burma's planning department, International Relation Division, NTP, regional health department, and other relevant departments under MoH to speed up the approval process.	In progress

Problem	Resolution	Status
implementation. As the project's end date is getting closer, the risk is increasing that activities will not be implemented as originally planned.	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.	
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 impacts IDDS's 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
The NTP has been reluctant to adopt new TB diagnostic modalities, such as private-sector engagement and community strengthening, as well as the adoption of new diagnostic tools.	As a member of the TB Laboratory TWG, IDDS is engaging with NTRL and technical partners to overcome the challenges and educate policymakers on the potential public health impact of new TB diagnostic modalities. IDDS will continue to provide technical assistance to strengthen advocacy processes of the TWG.	In progress

Lessons Learned

- An agile management style is needed when there are disruptions and changes in government leadership.** IDDS was unable to move forward with some planned activities because of changes in NTP priorities or delayed approval processes. However, the project was able to respond to requests for technical support from the NTP for TB diagnostic activities. Those activities are considered priorities and high impact for TB control in Burma, and IDDS was able to shift courses to deliver the requested technical assistance.

FY 2023 Q3 Output Results

6

People trained

Pediatric TB

9

SOPs, plans, and guidelines
developed

New diagnostic tool-Truenat (1)
SRS (1)
Pediatric TB (1)
Biosafety and biosecurity (1)
Testing skill and procedure (4)
QMS (1)

CAMBODIA

Quarterly Highlights

Success Story:

- IDDS Evaluates the Pilot Implementation of Truenat MTB/RIF Testing in Cambodia

Diagnostic Highlights:

- To build capacity for DST, IDDS (with Core TB funds) provided on-site training on phenotypic DST for six laboratory technicians (three female) from two laboratories (NTRL and Kampong Cham province). The training increased the capacity of laboratory technicians to perform testing for second-line TB drugs, which is expected to improve the rate of XDR TB cases detected.
- To improve the quality of data management and reporting, IDDS collaborated with Savics and Molbio Diagnostics to ensure connectivity between DTC and Truenat, completing the connection for 13 Truenat devices.
- To ensure the quality of Truenat testing, IDDS conducted a refresher training for 30 Truenat end users (10 female), who achieved an average test score of 80 percent after the training, compared to only 33 percent before the training.
- To implement stool specimen testing with Xpert MTB/RIF Ultra for pediatric TB diagnosis, IDDS conducted an SOS stool testing training for 36 participants (7 female). This training enables health staff capacity to implement stool-based testing at the selected sites, improving the TB case detection rate among children.

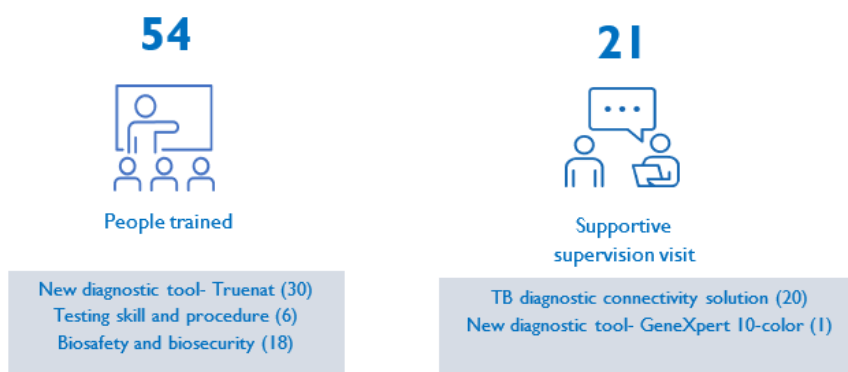
Problems Encountered and Solutions

Problem	Resolution	Status
NTRL and Kampong Cham TB laboratory technicians were trained on how to perform phenotypic DST for second-line drugs, but they have not been able to perform any tests yet due to the lack of necessary solvent and materials to prepare working drug solutions.	<p>IDDS is working to supply the two sites with the necessary materials, including syringe filters and dimethyl sulfoxide solvent, so that they can start testing. Dimethyl sulfoxide and the necessary materials for preparation of working drug solutions are expected to arrive in FY 2023 Q4.</p> <p>IDDS will provide a technical orientation to trained laboratory technicians, as needed, to make sure that they can initiate the testing properly.</p>	In progress

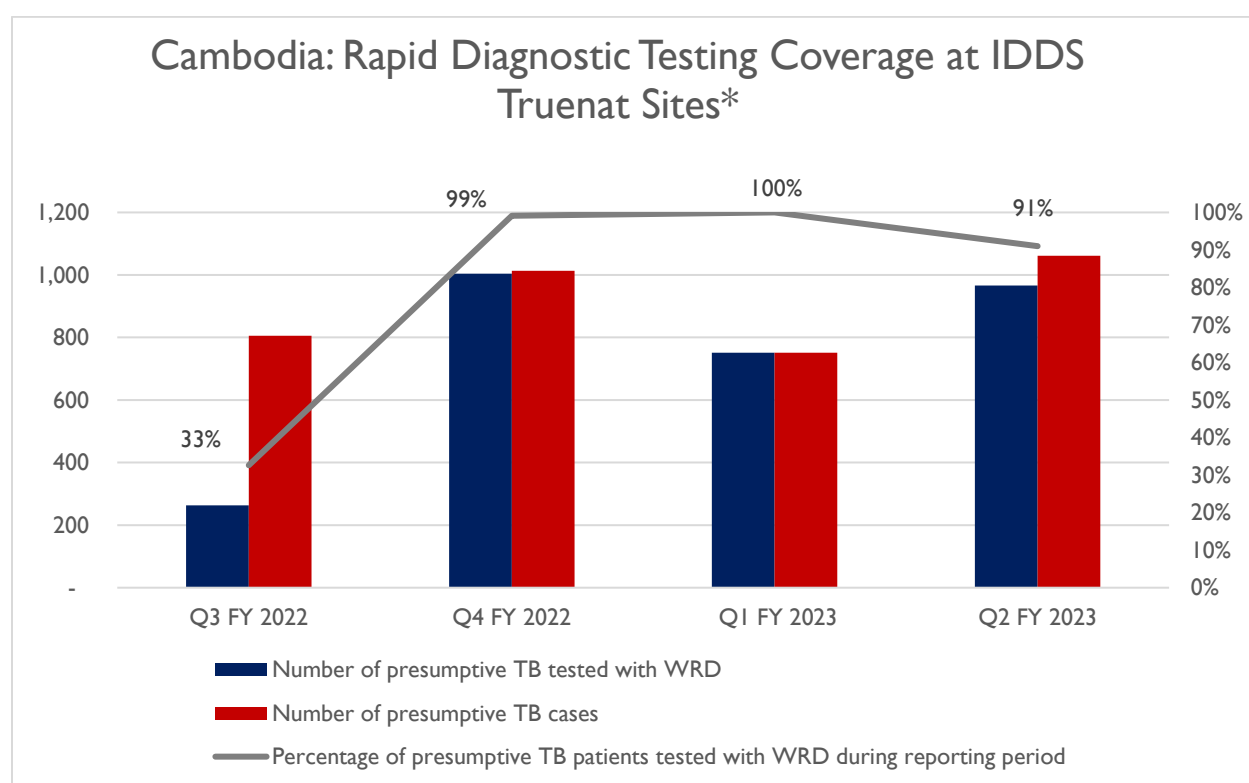
Lessons Learned

- None to report.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



*Cambodia Truenat sites include 14 health centers.

An operational research study on Truenat rollout and implementation conducted in Cambodia demonstrated that the rapid testing coverage increased, from 33 percent in FY 2022 Q3 (the start of the study) to 91percent in FY 2023 Q2.

DEMOCRATIC REPUBLIC OF THE CONGO

Quarterly Highlights

Success Stories:

- IDDS Supports the Introduction of a Laboratory Information Management System at the Democratic Republic of the Congo's National Tuberculosis Reference Laboratory
- IDDS Supports the Democratic Republic of the Congo's National TB Reference Laboratory to Update the Supervisory Checklist and Supervision Manual of TB Diagnostic Network
- Truenat Implementation in the DRC Supplements Use of GeneXpert to Improve Detection of Drug-Resistant TB

Diagnostic Highlights:

- IDDS contributed to improving waste disposal at NTRL by providing a new incinerator. NTRL faced significant challenges in working within quality standards, particularly regarding biosafety and biosecurity. The new incinerator addresses waste management issues, such as waste accumulation and contamination, while enhancing the safety of laboratory staff. The provision of this essential equipment represented a significant step toward improving the laboratory's overall quality and capacity.
- IDDS contributed to laboratory safety and service continuity by repairing the NTRL's P2 Unit Autoclave, a crucial piece of equipment for sterilization. The autoclave's repair allowed the laboratory to resume normal activities of sterilization; it had been non-functional since FY 2023 Q2.
- IDDS facilitated the participation of 35 of 38 Truenat sites in Cycle 1 of Truenat EQA, ensuring that the laboratory's testing capabilities are assessed and monitored. The EQA panels are provided through Core TB funds.

Problems Encountered and Solutions

Problem	Resolution	Status
Truenat cartridges expired on May 31. Users can no longer test specimens with Truenat, due to cartridge expiration.	The issue related to the expiration of Truenat cartridges in the country was discussed and addressed by the Stop TB Partnership, USAID, and Molbio Diagnostics, with the order of a new batch.	Resolved

Lessons Learned

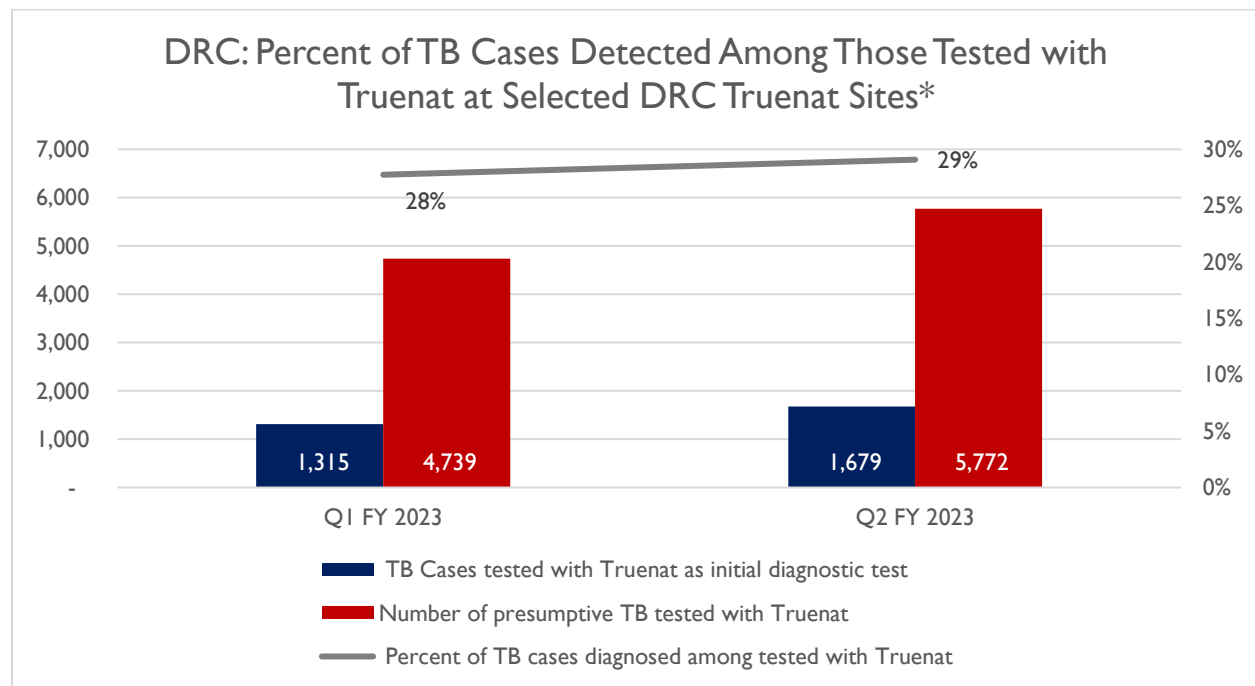
- **TB diagnostic network performance requires better planning and management of reagent stocks:** IDDS highlighted the contribution of Truenat to the detection of MDR-TB and RIF-resistant TB cases. However, with the expiration of Truenat reagents, sites that were already using the Truenat instrument had to return to microscopy, with the risk of missing cases.

- **Good collaboration, synergy in complementing activities, and working closely with NTP/NTRL and other actors/partners will enhance the TB diagnostic network:** IDDS procured the biosafety cabinet for the Kisangani provincial laboratory, and the Global Fund supported the certification done by Air Filter Maintenance Services International (South Africa). This collaboration and continued communication have led to enhanced project impact, with recognition of IDDS at recent national TWG meetings.
- **Regular monitoring of the equipment maintenance plan in the laboratory by a dedicated staff will ensure proper management of the equipment to maintain it in working order.** Among the various equipment replaced at the three laboratories supported by IDDS, many had been damaged due to electricity disruptions, but also by the lack of preventive maintenance.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



*DRC Truenat sites are 38 facilities that include provincial-level and peripheral-level laboratories, 3 prisons, 1 military referral hospital, and 3 military health centers. The graph above shows data from 20 Truenat sites on the number of TB cases tested with Truenat as the initial diagnostic test and number and percentage of TB case detection among those that were tested during FY 2023 Q1 and Q2.

INDIA

Quarterly Highlights

Success Story:

- IDDS Supports India's First "TB Wednesday" Session for Improving Cross-Learning Among Laboratory Tiers

Diagnostic Highlights:

- In a key step for sustaining the project's impact in India, CTD disseminated six strategic documents and Truenat videos, developed by IDDS, to the National TB Elimination Program (NTEP) network. The guidance documents will serve as a reference for TB laboratory personnel and promote implementation of biosafety practices in NTEP laboratory tiers, build the capacity of NRLs and IRLs to improve the quality of diagnostic services through stringent on-site evaluation visits, provide impactful feedback, provide support for assessing and encouraging quality of TB diagnostics in private-sector laboratories and their engagement in NTEP, and help optimize Truenat testing at NTEP sites.
- To build capacity of laboratory staff, improve communication among tiers in the health system, and promote cross-learning and networking, IDDS supported CTD in initiating TB Wednesday sessions. These sessions will provide an opportunity to discuss various gaps with underlying challenges and possible solutions through interaction with subject experts from various fields, with the aim of enhanced efficiency in the TB diagnostic network.
- To provide a platform to resolve laboratory issues and promote peer-to-peer learning, IDDS conducted a review meeting of IRLs and TB C-DST laboratories in eight states linked with the NRL in Delhi.

Problems Encountered and Solutions

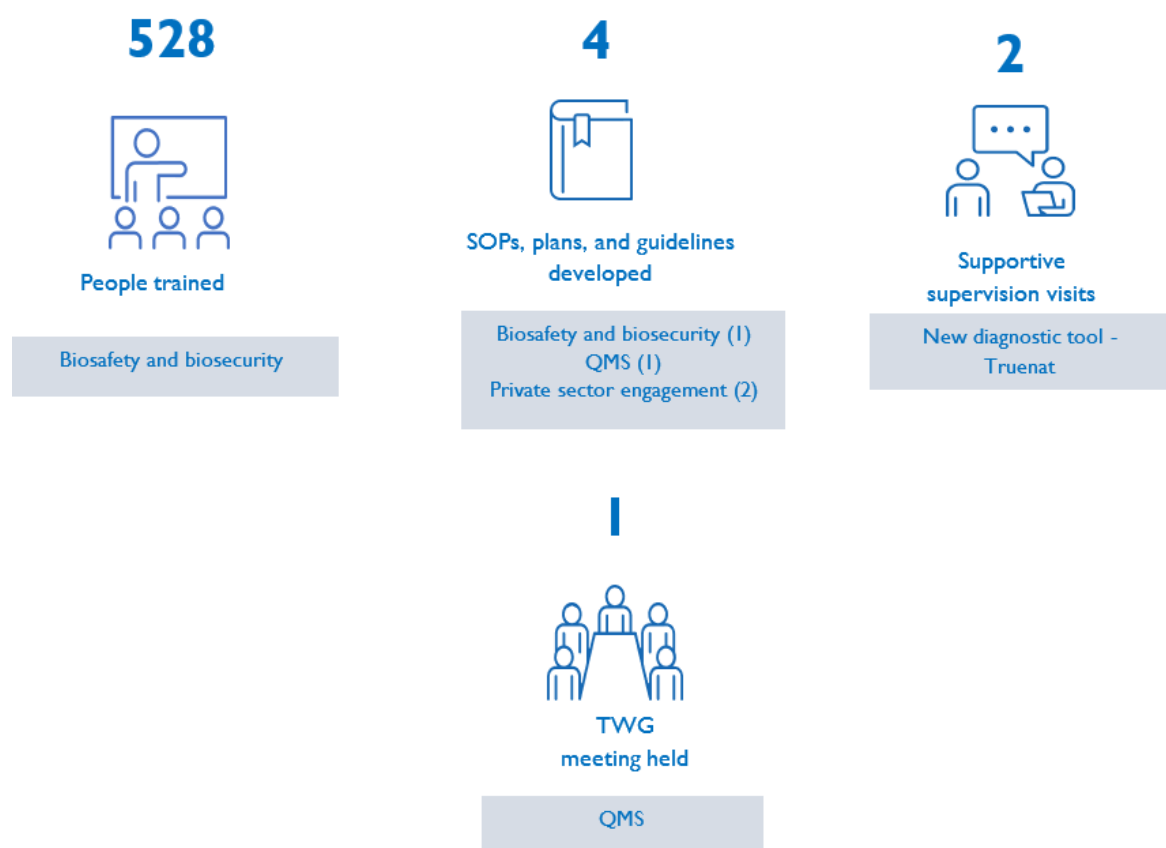
Problem	Resolution	Status
The visits for validating the grading tool were postponed due to engagement of the CTD laboratory team in World TB Day activities.	IDDS coordinated with identified IRLs and respective NRLs and tried to schedule the visits planned for validation of tool, along with the annual on-site evaluation visits of NRL and monitoring visits of CTD to states, after World TB Day to complete the activity. The visits have been completed, and a draft report was prepared.	Resolved
IDDS had planned to recruit laboratory staff to support operations at a central TB nucleic acid amplification testing laboratory that will support the Hisar model. The	IDDS advocated with the state TB officer and civil surgeon for relocating the existing laboratory technicians from the other centers to the central TB nucleic acid amplification testing laboratory to make it operational. The district posted two	Resolved

Problem	Resolution	Status
recruitment could not be completed within the defined timeline by the district authorities to make the laboratory operational on time.	laboratory technicians from NTEP, and the laboratory is now operational.	

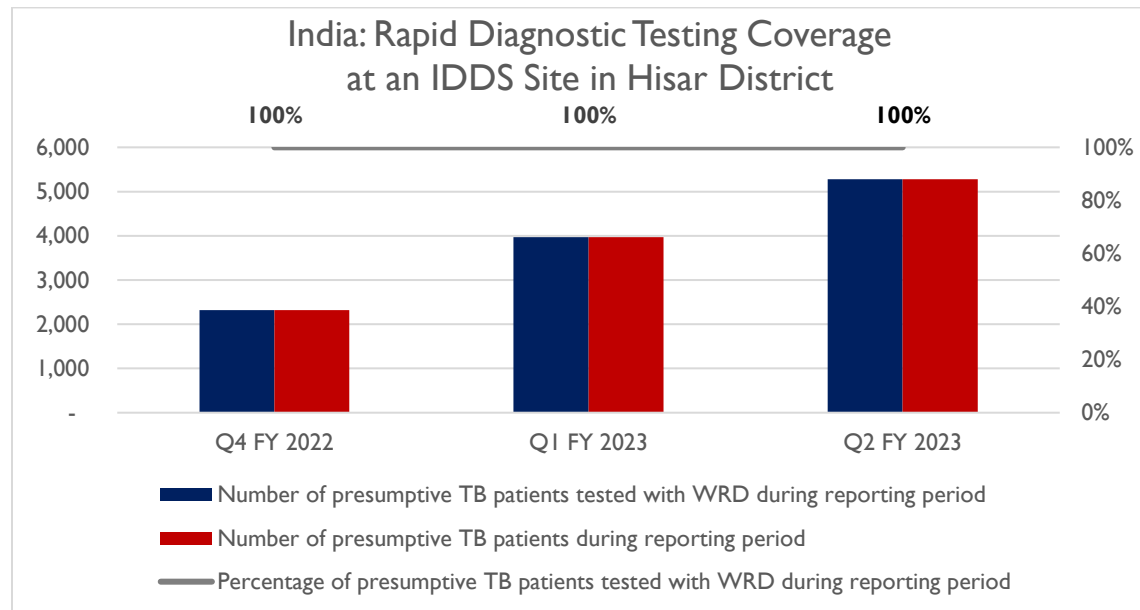
Lessons Learned

- None to report.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



The graph above shows rapid testing coverage at one IDDS site in Hisar, India. From the available data, it is observed that there is 100 percent coverage beginning in Q4 FY 2022 and an increase in absolute values of the numerator and denominator.

KENYA

Quarterly Highlights

Diagnostic Highlights:

- To support the TB DNA, IDDS contracted about a dozen international and national consultants, and the project provided technical and logistic support for the DNA self-assessment workshop, during which Kenya NTP officers used the TB-NET tool to evaluate the status of the diagnostic network. IDDS then conducted verification visits to 175 sites in 13 counties and began to prepare the draft DNA report.
- To ensure the quality of Truenat testing, IDDS procured 3 cycles of 38 panels from SmartSpot Quality that will be used for EQA activities at supported Truenat sites.
- To coordinate activities among TB and HIV implementers and stakeholders, IDDS participated in a five-day joint work planning meeting.

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

Problems Encountered and Solutions

Problem	Resolution	Status
The scope of work for IDDS support to Kenya NTP and NTRL is unclear.	IDDS HQ and country team members worked together to review proposed plans and shared updated information with colleagues at USAID. The scope of work and budget are currently in review for revision and final confirmation.	In progress

Lessons Learned

- None to report.

MALAWI

Quarterly Highlights

Success Story:

- IDDS Introduces Xpert MTB/XDR Assay into the TB Diagnostic Network in Malawi

Diagnostic Highlights:

- IDDS completed the pilot study for testing stool specimens with Xpert MTB/RIF Ultra. With Core TB funds, IDDS, with supervisors from the National TB Elimination Program (NTLEP), national TB reference laboratory, and Partners in Hope, the TB Local Organizations Network partner, conducted supervision visits to seven of the pilot sites. During the visits, the teams conducted a data and document review and interviews with health care staff about their experiences with the SOS method to inform the pilot report. The pilot sites have continued providing stool testing after the end of pilot, utilizing the remaining testing commodities (at the direction of the National TB and Leprosy Elimination Program). IDDS and the National TB and Leprosy Elimination Program are working on a plan for scaling up stool testing for pediatric TB diagnosis to additional districts.
- To optimize specimen referral routes to the three new Xpert MTB/XDR testing facilities, IDDS finalized a report on optimized pick-up schedules for hubs and spokes and courier needs.

Problems Encountered and Solutions

Problem	Resolution	Status
There were delays in the procurement of leaded windows and doors.	The country team engaged IDDS HQ to expedite the procurement process. The leaded windows were delivered in July (after the end of the quarter), and the doors are yet to be delivered.	In progress

Lessons Learned

- Every site has different challenges and solutions. For example, in Kawamba-Kasungu, the laboratory room lacked proper security to secure the Truenat instrument. IDDS approached the Health Center Advisory Committee, which installed some burglary bars to the windows and changed the locks. IDDS learned that when peripheral health centers are ready for innovative change, engaging alternate stakeholders can advance implementation instead of waiting for support from the District Health Office.
- Pre-installation assessment of sites has proved to be critical to understanding the actual set-up and being able to tailor solutions that are specific to that site.

FY 2023 Q3 Output Results



MOZAMBIQUE

Quarterly Highlights

- To improve capacity for pediatric TB diagnosis, IDDS organized a TWG workshop for 25 participants (17 female) to review and approve the training package for SOS stool processing using Xpert MTB/RIF Ultra. With Core TB funds, IDDS sponsored the first provincial training of trainers for 30 laboratory technicians and clinicians (6 female). The introduction of stool specimen testing will improve the number of TB cases detected among children in the provinces that currently have the lowest childhood TB detection rates.
- To improve capacity for DST, IDDS facilitated a training for eight laboratory technicians from Carmelo and NTRL (six female). The Carmelo laboratory started conducting TB culture testing in specimens referred from all of Gaza province. The decentralization of DST will reduce the workload and specimen volume at NTRL and reduce turnaround times for delivering results to clinicians and patients.
- To plan for the implementation of TB genomic sequencing, IDDS hosted a workshop to draft and approve the terms of reference for a TWG, clinical committees, and use case scenarios, and to update the algorithm for genomic testing. The implementation plan with timelines was developed and approved by the TWG and will be used for monitoring implementation.

Problems Encountered and Solutions

Problem	Resolution	Status
MoH and NTP requested that IDDS train more participants and facilitators on SOS than the project had originally planned for.	IDDS revised the project budget to cover the total number of participants.	Resolved

Lessons Learned

- Continuing negotiation with NTP or NIH is crucial for implementing the activities within project timelines, such as in the case of conducting the phase 1 training of trainers for TB genome sequencing.
- The contingency plan for activities must account for slow responses from NTP or NIH or the Clinical Laboratory Division, which can affect the project timelines.

FY 2023 Q3 Output Results

8



People trained

Testing skills and procedures

1



TWG
meeting held

New diagnostic tools-
genome sequencing

PAKISTAN

Quarterly Highlights

Success Story:

- Pakistan: IDDS Conducts Remote Technical Mentorship for ISO Accreditation

Diagnostic Highlights:

- To strengthen capacity for drug resistance surveillance and DST, IDDS finalized the TB Drug Resistant Survey and sentinel site surveillance protocol, and identified six pilot sites that will conduct surveillance using the Xpert MTB/XDR assay.
- To refine its recommendations for optimizing the diagnostic network, IDDS continued to revise the DNA report and will submit the deliverable to USAID in July. The deliverables will inform plans to develop a five-year laboratory strengthening roadmap.
- To strengthen laboratory management toward accreditation, IDDS trained 70 laboratory staff (23 female) on 5 modules about biosafety and biosecurity, across 4 supported laboratories. IDDS also conducted an in-person external audit at each of the four sites, administering the SLIPTA checklist and developing a corrective action plan for each laboratory.

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

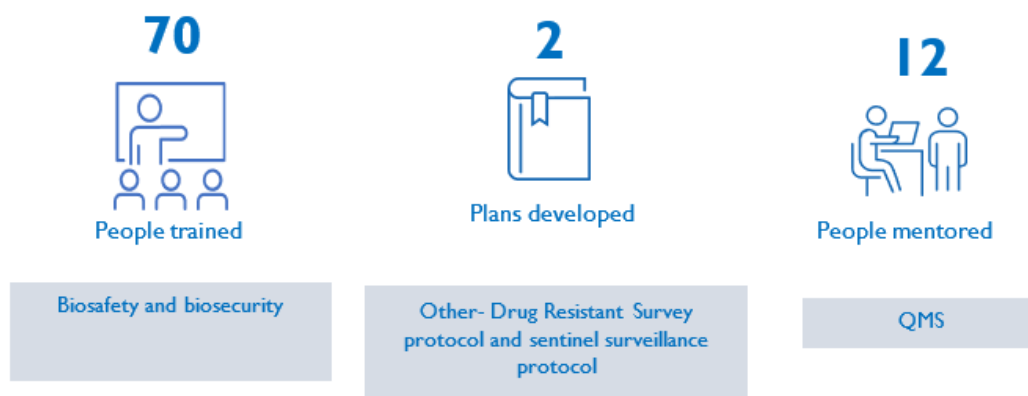
Problems Encountered and Solutions

Problem	Resolution	Status
Multiple actors support diagnostic network optimization activities, and NTPs and NTRLs are often unaware of the differences in the offerings.	IDDS worked with USAID and NTRLs to identify other ongoing processes and suspended the plan to complete an LNSA in Pakistan, due to work that FIND conducted for diagnostic network optimization.	Resolved

Lessons Learned

- None to report.

FY 2023 Q3 Output Results



TANZANIA

Quarterly Highlights

Diagnostic Highlights:

- To improve capacity to detect DR-TB, IDDS facilitated a two-week on-site mentorship, conducted by national mentors, online probe assay and culture at each of the four zonal laboratories. Thirteen laboratory staff (five female) were mentored.
- IDDS supported the National TB and Leprosy Program and the central TB reference laboratory to conduct a three-day workshop to review and update the national molecular diagnostic guidelines to include new TB diagnostic tools and assays, such as Truenat and stool testing for pediatric TB diagnosis.
- With Core TB funding, IDDS enhanced the national diagnostic network to provide accessible, accurate, adaptable, and timely TB diagnostics near the point of care through logistic support for the installation of new diagnostic instruments—21 Truenat instruments in 21 sites across the country. The near point-of-care diagnostic equipment will improve molecular WRD coverage of the Tanzania TB diagnostic network, improve universal access to TB molecular DST, improve the TB bacteriological confirmation rate, and contribute to the use of molecular WRDs as initial tests for TB and DR-TB detection.

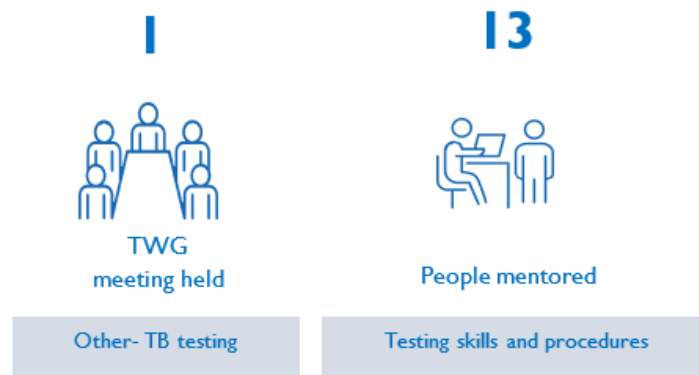
Problems Encountered and Solutions

Problem	Resolution	Status
None to report.		

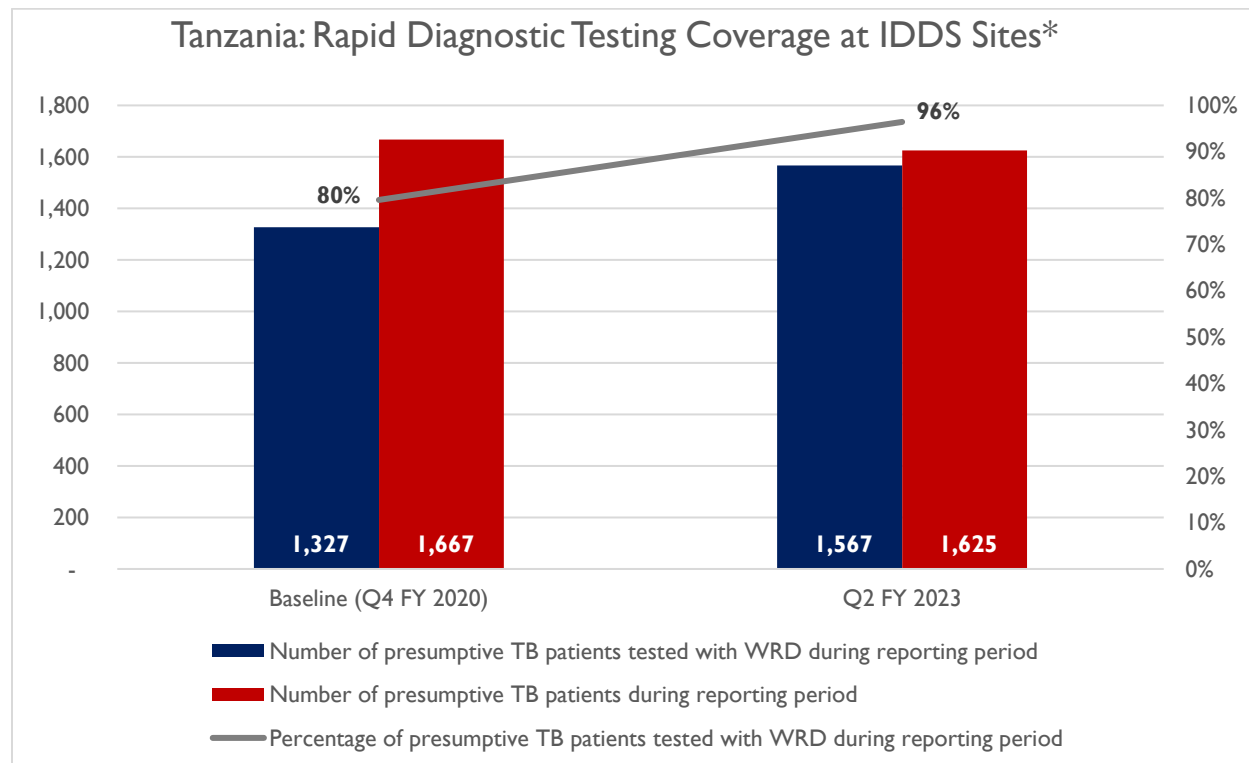
Lessons Learned

- None to report.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



*IDDS sites in Tanzania include NTRL and four zonal reference laboratories.

The graph above shows rapid testing coverage in IDDS Tanzania sites and allows to see a comparison at the baseline in Q4 FY 2020 and Q2 FY 2023. The percentage of presumptive TB patients tested with WRD increased from 80 percent to 96 percent.

ZIMBABWE

Quarterly Highlights

Diagnostic Highlights:

- IDDS conducted mentorship visits to 15 laboratories in Harare province for competency assessments, proficiency testing results management, and to continue to resolve non-conformities identified during laboratory assessments conducted in March 2022.
- To build capacity for childhood TB detection, IDDS worked with the NTP to organize the first National Childhood TB Stakeholder Meeting, on June 26, at which stakeholders discussed priorities for Childhood TB and opportunities for integrating childhood and adolescent TB into their respective programming.
- To increase access to molecular testing and increase TB case detection, IDDS trained 20 Truenat end users, then conducted supportive supervision visits, with NTRL, to the 20 Truenat sites.
- To inform future improvements to the TB diagnostic network, IDDS completed the LNSA. The draft results of the LNSA will be used for the Global Fund Grant Cycle 7 application.

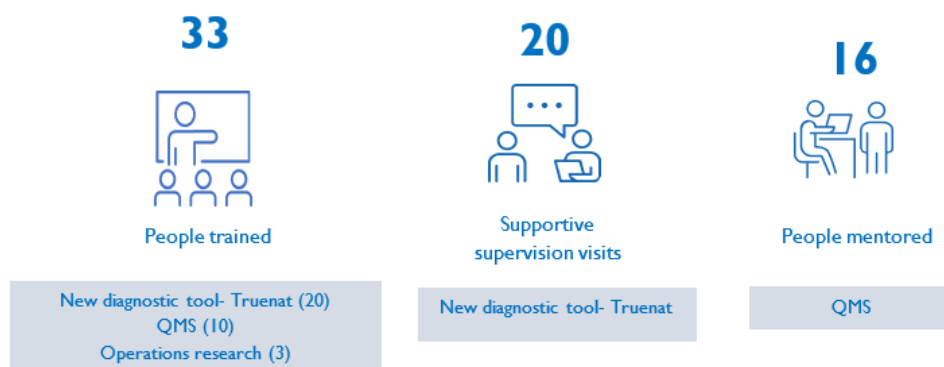
Problems Encountered and Solutions

Problem	Resolution	Status
Childhood TB activities are not prioritized in the national budget.	IDDS proposes to provide financial and technical support for site supervision and data review meetings. IDDS is promoting advocacy to other partners and NTP within the Ministry of Health and Child Care (MoHCC) to ensure mobilization of funds. Though not in the national budget, IDDS childhood TB activities are included in the MoHCC-NTP work plan.	In progress
There is low uptake of childhood TB stool testing in IDDS-supported health facilities (25) in Harare province.	IDDS is running a questionnaire to elicit both qualitative and quantitative responses to help shed more light on this issue. Earlier indications point to a small number of children (ages 0–15 years) being seen in facilities. A national stakeholder meeting was held on May 26 to create more awareness and in turn further strengthen childhood TB diagnosis.	In progress
There is an absence of a proficiency testing scheme for acid fast bacilli smear microscopy processing in the IDDS-supported public facilities in Harare province.	IDDS-supported sites will be prioritized in NTRL's initiative to provide proficiency testing materials and results analysis. IDDS is supporting the procurement of additional commodities. The scheme is currently being piloted.	In progress

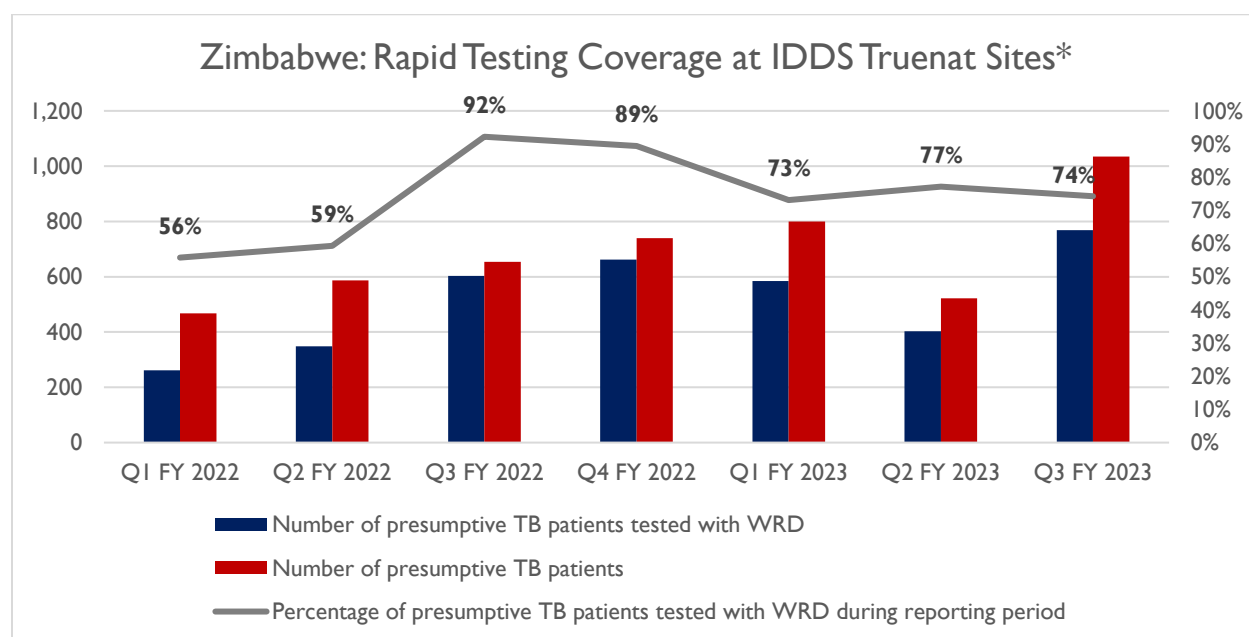
Lessons Learned

- Collaboration with the local Molbio Diagnostics agent was important to provide a Truenat competency checklist and training certificates for end users at installation.
- Training modules for refresher trainings need to be reviewed to prioritize the practical aspects.

FY 2023 Q3 Output Results



FY 2023 Q3 Outcome Results



*Zimbabwe Truenat sites include 20 peripheral-level laboratories. Truenat implementation in Zimbabwe commenced in FY 2022 Q1.

The graph above demonstrates an increase in rapid testing coverage at IDDS Truenat sites in Zimbabwe from the first quarter of Truenat introduction in FY 2022 Q1 to FY 2023 Q3. The percentage of presumptive TB patients tested with a WRD increased from 56 percent to 74 percent.

Middle East and North Africa FY 2023 Q3 Achievements

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

Quarterly Highlights

Diagnostic Highlights:

- In Tunisia, IDDS completed the pilot of the DNA tool, including the self-assessment and site verification visits. The pilot will not only validate and inform update to the MENA DNA tool, but also inform pandemic preparedness funding opportunities from the World Bank, WHO, and the Global Fund to Fight AIDS, Tuberculosis and Malaria.

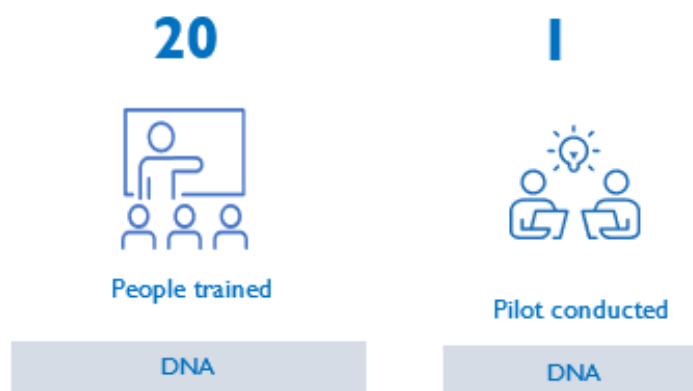
Problems Encountered and Solutions

Problem	Resolution	Status
The conference facility approved by the regional security office exceeded the allowable per diem cost.	IDDS requested and received a waiver from USAID headquarters.	Resolved
There was no IDDS in-country consortium partner in Tunisia to provide logistic support for the pilot, including the self-assessment workshop and the assessor training workshop.	IDDS contracted an agency used by the USAID mission (<i>L'Association Tunisienne de Lutte contre les Maladies Sexuellement Transmissibles et le SIDA Bureau National</i> [the Tunisian Association for the Fight against Sexually Transmitted Diseases and AIDS]) to provide logistic support for the events, including a vehicles and drivers for verification visits.	Resolved

Lessons Learned

- For site verification visits, allowing for three to four hours per facility was not adequate for assessment teams to complete the verification checklists. For facilities with large scopes, more time is needed.
- A post-assessment debrief with assessor teams provides important feedback and is essential to improve the DNA tool and processes.
- Expanding the number of sites visited for the verification assessment would improve generalizability of the findings.

FY 2023 Q3 Output Results



Annex A: Activity Implementation Progress

Annex B: Success/Highlight Stories

Annex C: Country Monitoring and Evaluation Tables