

Infectious Disease Detection and Surveillance (IDDS) Quarterly Report FY22

Q2: Annex A: Activity Implementation Progress

Annex A includes information about activities that were in progress or completed during quarter 2 (Q2) as well as fiscal year (FY) 2022 activities that have not started.

Global Health Security Activity Implementation Progress

Cameroon GHS			
Activity	IHR benchmark	Status	Activity implementation updates
CMR-GHS-NTW-1: Strengthen the capacity of the IDDS-supported surveillance sites to detect priority pathogens and antimicrobial resistance (AMR) in both human health and animal health diagnostic facilities	Benchmark 7.3	In progress	IDDS continued to provide support for the antimicrobial resistance (AMR) National Coordination Center, run by the National Public Health Laboratory (NPHL), in operationalizing standard operating procedures (SOPs) for AMR detection to ensure harmonization of pathogen identification and antimicrobial susceptibility testing (AST) across human and animal AMR sentinel surveillance sites. IDDS evaluated the capacity building and technical assistance needs of relevant laboratories and short-listed supply needs such as reagents, consumables, and small equipment for AMR detection. IDDS also mentored relevant staff on the use of standard operating procedures for culture media preparation, pathogen identification, and AST in compliance with international norms, the implementation of internal quality control, and participation in external quality controls. A total of 8 mentoring sessions took place from January 25 to March 17, mentoring 56 laboratory staff (35 female) in 5 AMR surveillance sites (Yaoundé General Hospital, Yaoundé Military Hospital, Yaoundé Centre Hospitalier d'Essos, National Animal Laboratory-LANAVET Yaoundé, and Douala Laquintinie Hospital). IDDS provided technical and financial support to the NPHL in conducting joint supervision of the seven sentinel bacteriology laboratories (General Hospital Yaoundé, University Teaching Center Hospital Yaoundé, Yaoundé Centre Hospitalier d'Essos, Yaoundé, Military Hospital Yaoundé, National Veterinary Laboratory Yaoundé, Laquintinie Hospital Douala, and Limbe Regional Hospital) participating in pilot AMR surveillance for priority pathogens in human and animal
NTW-1.1: Provide technical assistance, training, and mentorship to IDDS-supported sites (5 human and 2 animal sites) to implement national AMR standard operating procedures (SOPs) and to re-enforce skills and competencies on quality assurance and biosafety and		In progress	

Cameroon GHS			
Activity	IHR benchmark	Status	Activity implementation updates
biosecurity for organism identification and antimicrobial susceptibility testing			<p>health. The supervision aimed to ensure the harmonization of procedures for AMR detection. This activity took place from March 10 to 31 in three regions (Center, Littoral, and Southwest). IDDS developed (in FY 2021) the supervision guide used by the NPHL to assess the availability and mastery of SOPs, reference manuals, the availability of reagents and consumables, the knowledge of priority germs and specimens for surveillance, and internal and external quality management. To ensure the harmonization of AST conducted, IDDS printed and disseminated the national harmonized SOPs on pathogen isolation and ASP (developed in FY 2021 with IDDS support) to the surveillance sites. In addition, up-to-date copies of the reference documents from the European Committee on Antimicrobial Susceptibility Testing and the AntibioGram Committee of the French Society of Microbiology were provided to the laboratories. Recommendations were made to address observed gaps and improve the quality of AST data to comply with the international norms set by the Global Antimicrobial Resistance Surveillance System (GLASS). IDDS provided financial support to the Cameroon Laboratories Network for maintenance and certification of 18 biosafety cabinets (BSCs) in 6 human and 2 animal laboratories nationwide from March 8 to 18. This activity involved laboratories in four regions: Centre, Littoral, Southwest, and North. A total of 15 class II, 2 laminar air flow, and 1 class I BSCs were certified. Sites with certified BSCs improve safety for the laboratory technicians and the environment and comply with international recommendations. In FY 2022 Q3, IDDS will continue training and mentoring at the remaining AMR sentinel surveillance sites and ensure the procurement and distribution of essential laboratory needs for AMR detection.</p>
NTW-1.2: Support the printing and dissemination of the AMR detection and surveillance SOPs developed		Completed	
NTW-1.3: Provide maintenance contracts for bacteriology equipment in the IDDS-supported sites		Completed	
NTW-1.4: Procure basic AMR reagents and equipment for the human and animal sentinel surveillance sites		In progress	
NTW-1.5: Support the National Public Health Laboratory (LNHP) to develop a national AMR external quality assessment (EQA) plan to improve AMR detection in health facilities		Not started	
CMR-GHS-SURV-1: Strengthen AMR	Benchmark 3.2	In progress	

Cameroon GHS			
Activity	IHR benchmark	Status	Activity implementation updates
surveillance through capacity building to analyze, interpret, and report AMR surveillance data and develop national strategic plans	Benchmark 9.2		<p>IDDS continued to strengthen capacity to use the WHONET data entry tool for AMR data collection and reporting. From March 10 to 31, IDDS supported the NPHL for the on-site training of AMR surveillance laboratory staff to use the WHONET tool. The aim of the training was to increase the number of bacteriology laboratory staff who are able to collect quality data using the WHONET software and promote the collection of high-quality data. A total of 57 laboratory technicians (41 females) were trained in 7 AMR pilot sites (General Hospital Yaoundé, University Teaching Center Hospital, Yaoundé Centre Hospitalier d'Essos, Yaoundé, Military Hospital, Yaoundé, National Veterinary Laboratory Yaoundé, Laquintinie Hospital Douala, and Limbe Regional Hospital). IDDS and the NPHL undertook data quality review of the 2021 annual data in the seven AMR surveillance sites from March 10 to 31. Staff in charge of data collection participated in this activity. For the review, IDDS developed a semi-structured questionnaire to assess four data quality dimensions (completeness, timeliness, consistency, and accuracy), in compliance with the national surveillance guidelines.</p> <p>IDDS worked with the AMR National Coordination Center to compile and analyze 2021 national AMR surveillance data for drafting the country's first Annual AMR Report. This included a three-day workshop in Kribi from March 18 to 20, which brought together the AMR surveillance technical working group members from the NPHL and the National Veterinary Laboratory to draft the report. The Annual AMR Report uses a One Health approach and includes data from both the animal and human health sectors. In FY 2022 Q3, IDDS will facilitate the review of this draft by other members of the AMR surveillance technical working group and the validation by relevant authorities.</p>
SURV-1.1: Provide technical assistance, training, and mentorship on AMR data management and analysis to the IDDS surveillance sites and the National Coordination Center		In progress	
SURV-1.2: Conduct quarterly AMR surveillance stakeholders review meetings to review progress with AMR surveillance and data quality		In progress	
SURV-1.3: Provide technical assistance to the National Coordination Center to develop semiannual national AMR bulletins and policy briefs based on surveillance data		In progress	

Cameroon GHS			
Activity	IHR benchmark	Status	Activity implementation updates
SURV-1.4: Provide technical support to the National Coordination Center to report National AMR data to Global Antimicrobial Resistance Surveillance System (GLASS)		In progress	IDDS also technically supported the NPHL in preparing the 2021 data for submission to GLASS according to GLASS requirements. The NPHL is now waiting for the 2021 GLASS data call to submit these data. In FY 2022 Q3, IDDS and the Medicines, Technologies, and Pharmaceutical Services Program will work with the NPHL to support the revision of the outdated AMR National Action Plan (2018–2020) and the development of the new AMR National Action Plan (2022–2026).
SURV-1.6: Provide technical assistance to the AMR technical secretariat to develop the AMR strategic plan (2022-2027) to fight against AMR in collaboration with other USAID GHS partners (Medicines, Technologies, and Pharmaceutical Services [MTaPS], Food and Agriculture Organization [FAO])		In progress	

Democratic Republic of Congo (DRC) GHS			
Activity	IHR benchmark	Status	Activity implementation updates
DRC-GHSA-NTW-1: Operationalize the national laboratory policy and strategic plan in Eastern DRC	Benchmark 7.3	In progress	IDDS completed the printing of 500 copies of the National Laboratory Policy and the Strategic Plan 2021–2025 to be distributed in the IDDS-supported DRC Eastern provinces as a significant contribution to strengthening the regulatory environment (policy and governance) for diagnostic networks in this region. In FY 2022 Q3, IDDS will conduct a one-day dissemination session in Goma to distribute these documents to all IDDS-supported DRC Eastern provinces through the <i>Division Provinciale de la Sante</i> (Provincial Health Division) and laboratory network. IDDS finalized the report on the training sessions conducted on equipment and laboratory maintenance organized in Goma, Bukavu, and Kindu in FY 2022 Q1.
DRC-GHS-NTW-1.1: Support the dissemination of the MoH laboratory policy and strategic plan in the Eastern DRC		In progress	
DRC-GHS-NTW-2: Support the establishment of a regional public health network in the Eastern DRC	Benchmark 7.3	In progress	IDDS completed the costing of the operational plan for the Development of the Rodolph Merieux Laboratory and the Public Health Network Laboratory in the DRC Eastern region (2022–2025). IDDS has started to develop the financial sustainability framework for the Eastern region public health laboratory network, which is expected to be completed in FY 2022 Q3. IDDS has initiated planning with the Directorate of Laboratory Services for a Planwise training for teams from DRC, Guinea, and Mali. Coordination with IDDS teams in those countries is underway for scheduling and travel logistics. The training will teach teams to use the Planwise software to map and analyze laboratory data to inform decisions regarding locations of new services or interventions.
DRC-GHS-NTW-2.4: Cost the operational plan and develop a financial sustainability framework for the Eastern region public health laboratory network		In progress	
DRC-GHS-NTW-2.5: Support Planwise training by ASLM for four staff: two laboratory mapping focal points from government [one from Directorate of Laboratory Services (DLS) and one from Division Provinciale de la Santé (DPS)] and two from IDDS staff (SDS and DS or PA)		In progress	

Democratic Republic of Congo (DRC) GHS			
Activity	IHR benchmark	Status	Activity implementation updates
DRC-GHS-NTW-2.6: Organize a technical workshop for platform checklist update: materials, equipment, and laboratory inputs for each level of laboratory in the DRC health pyramid to help equipment procurement (with a focus on detection and surveillance) to support full operation of provincial labs in the Eastern region		Not started	
DRC-GHS-NTW-2.7: Develop advocacy roadmap with key stakeholders (DRC government officials, international donors) to mobilize domestic and external resources to sustain operations of the Eastern region diagnostic network		Not started	
DRC-GHS-NTW-3: Enhance priority pathogen detection capacity for epidemic prone diseases	Benchmark 7.2	In progress	IDDS is working with the Ministry of Health (MoH)/Directorate of Laboratory Services and the Directorate of Epidemiologic Services to establish a multisectoral technical working group, develop terms of reference for the decentralization of microbiology detection of epidemic-prone disease pathogens, and validate the scope of work for the consultant who will be hired to update the outbreak action plan to align with the National Laboratory Strategic Plan 2021–2025. The scope of work for the consultant was published online in March 2022.
DRC-GHS-NTW-3.1: Support the Directorate of Epidemiologic Services (DSE) to update the outbreak action plan to align with the National Laboratory Strategic Plan (NLSP) and to define resource requirements		In progress	

Democratic Republic of Congo (DRC) GHS			
Activity	IHR benchmark	Status	Activity implementation updates
DRC-GHS-NTW-3.2: Provide technical assistance to the Directorate of Laboratory Services (DLS) to create training materials and job aids for laboratory biosafety officers to train laboratory technicians, non-technician personnel involved in specimen handling and storage, and local transportation vendors in safe specimen handling techniques		In progress	<p>Based on the three biosafety/biosecurity manuals developed and validated during FY 2021, IDDS finalized training modules and facilitator guides for each topic and ensured their alignment with the MoH's training guidance. The training materials covered laboratory biosecurity, biological specimen storage and transport, and biological specimen collection. IDDS trained 30 trainers (3 female) from North and South Kivu to impart the biosafety trainings in their respective provinces. The trainings took place in Goma from February 9 to 13, and in Bukavu from February 17 to 21. IDDS co-facilitated the trainings with the MoH.</p> <p>The training of trainers' session in Kindu previously planned for FY 2022 Q2 was postponed due to the flight cancellation of the only airline company going to this destination. IDDS is working to find alternative ways to travel to and from Kindu.</p> <p>IDDS completed the terms of reference for a situational assessment of the specimen referral system and transport in the IDDS-supported Eastern DRC region. IDDS also developed terms of reference for a consultant to undertake the assessment and develop an implementation plan that will be piloted in collaboration with local airlines. The assessment will be conducted in FY 2022 Q3.</p>
DRC-GHS-NTW-3.3: Support of outbreaks response in the DRC		In progress	
DRC-GHS-NTW-3.4: Provide financial resources as needed for the detection of a priority pathogen investigation based on pre-defined criteria		Not started	
DRC-GHS-NTW-3.5: Explore how to incorporate local airlines (Compagnie Aérienne Africaine, Congo Airways, Kinavia, UNHAS, ASF, and MAF) into the specimen transportation system		In progress	
DRC-GHS-NTW-3.6: Support the DSE in the organization of the training of trainers in Integrated Disease Surveillance and Response (IDSR) for the provincial		Not started	

Democratic Republic of Congo (DRC) GHS			
Activity	IHR benchmark	Status	Activity implementation updates
management team in the province of Maniema and South Kivu			
DRC-GHS-NTW-4: Support the development of a quality assurance and biosafety / biosecurity program for health laboratories in Eastern Region of DRC		In progress	IDDS initiated the hiring process for a consultant who will support the development of a quality assurance program for Eastern DRC health laboratories. This work will start in FY 2022 Q3.
DRC-GHS-NTW-4.1: Develop documents for quality assurance and biosafety / biosecurity measures for the national laboratory network		In progress	
DRC-GHS-NTW-4.2: Support a workshop to validate quality assurance and biosafety / biosecurity measures documents for the national laboratory network		Not started	
DRC-GHS-NTW-4.3: Support the printing and dissemination of the quality assurance and biosafety / biosecurity measures documents in the laboratory network in one of the supported Eastern DRC provinces		Not started	
DRC-GHS-NTW-5: Strengthen the capacity of the INRB Laboratory in Goma and the provincial laboratory network to detect priority pathogens in the Eastern DRC region		Not started	This activity will be implemented in FY 2022 Q3.

Democratic Republic of Congo (DRC) GHS			
Activity	IHR benchmark	Status	Activity implementation updates
DRC-GHS-NTW-5.1: Develop standard operating procedures (SOPs) and training materials that can be used for the diagnosis of priority zoonoses in the region		Not started	
DRC-GHS-NTW-5.2: Support capacity building (training, mentorship) of public health laboratory staff in Eastern DRC provinces (Nord Kivu, Sud Kivu, and Maniema) on bacteriology testing and diagnostics of priority zoonoses so as to take on testing of more pathogens		Not started	

Guinea GHS			
Activity	IHR benchmark	Status	Activity implementation updates
GIN-GHS-NTW-1: Consolidate the capacity of existing human and animal health diagnostic facilities for the detection of priority antimicrobial resistant (AMR) pathogens and enroll three additional AMR surveillance sites to improving reporting structure for surveillance of AMR pathogens	Benchmark 3.2	In progress	<p>IDDS continued providing technical support and Internet data to the three IDDS-supported laboratories and the <i>Institut National de la Santé Publique</i> (National Institute of Public Health) to report antimicrobial resistance data to the national-level database.</p> <p>IDDS initiated the procurement of reagents and supplies for the <i>Institut National de la Santé Publique</i> to support the second round of external quality assessment for the antimicrobial resistance surveillance network, planned for FY 2022 Q3.</p>
NTW-1.1: Provide technical assistance to the National Institute of Public Health (<i>Institut National de la Santé</i> , INSP) to develop a centralized AMR data management system for future reporting into GLASS		In progress	
NTW-1.2: Continue to provide technical support to the INSP and to IDDS-supported regional laboratories for proficiency training, quality management system improvement, and management of microbiology data and Antimicrobial Susceptibility Testing (AST)		In progress	
GIN-GHS-NTW-3: Consolidate and finalize the IDDS pilot integrated national specimen referral and transport system	Benchmark 7.2	In progress	<p>The IDDS specimen management transport pilot was completed on March 13. Final monitoring and compilation of data for the development of the costed report and recommendation are ongoing.</p>
NTW-3.1: Develop a costed report and recommendations for the national specimen referral		In progress	

Guinea GHS			
Activity	IHR benchmark	Status	Activity implementation updates
and transport pilot conducted at the three regional laboratories			

Indonesia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
IDN-GHS-NTW-1: Support the One Health Laboratory Network (OHLN) Sub-Working Group (SWG)	Benchmark 4.1 and 7.1	In progress	<p>IDDS, in collaboration with the Directorate of Surveillance and Health Quarantine, <i>Balai Besar Pelatihan Kesehatan (BBPK)</i> or Ciloto Health Training Center, as well as the training team from the Eijkman Institute for Molecular Biology, conducted the preparation meeting for the PREDICT laboratory protocol training. The meeting was held on January 14 and attended by seven people virtually. The discussion was related to the administrative requirements (<i>Sistem Informasi Akreditasi Pelatihan</i> [Training Accreditation Information System] documents, cover letter, certificate of Master of Training, and Organizing Committee), procurements, potential speakers, and date of the training for four laboratories (<i>Balai Teknik Kesehatan Lingkungan dan Pengendalian Penyakit</i> [BTKLPP, or Center for Environmental Health and Disease Control Engineering], Batam, Makassar, Ambon, and Manado).</p>
NTW-1.1: Support and facilitate regular OHLN SWG meetings	Benchmark 4.1	Not started	
NTW-1.3: Provide technical assistance (TA) for the development of outputs from the OHLN	Benchmark 7.1	Not started	
NTW-1.4: Support and facilitate Predict Laboratory Protocol training	Benchmark 4.1 and 7.1	In progress	<p>On February 9, IDDS, in collaboration with the Directorate of Surveillance and Health Quarantine, conducted the final preparation meeting for the PREDICT laboratory protocol training. The meeting was attended virtually by 40 participants from the Health HR Training Center of the Ministry of Health (MoH); the Health Training Centers of Ciloto, Makassar, Ambon, and Manado; and BTKLPP of Batam, Makassar, Ambon, and Manado; and the Eijkman Institute for Molecular Biology. The final preparation for the training implementation was completed, including the finalization of the training materials, logistics, laboratory supplies, and accommodations.</p> <p>IDDS, in collaboration with the Directorate of Surveillance and Health Quarantine, 23 laboratory staff (18 female) on the testing and detection of zoonotic diseases using the PREDICT laboratory protocol. Trainings were held in four Centers for Environmental Health and Disease Control Engineering: BTKLPP Batam on February 14 to 18 (five participants), BTKLPP Ambon on March 14 to 18 (six participants), BTKLPP Makassar on March 21 to 25 (seven</p>

Indonesia GHS			
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			<p>participants), and BTKLPP Manado on March 28 to April 1 (five participants). The Master of Trainers, Organizing Committee, and Quality Control participated in the training from the MoH, and Health Training Centers of Ciloto, Makassar, Batam, Ambon, and Manado.</p> <p>In FY 2022 Q3, IDDS will conduct an evaluation meeting with all training participants and institutions involved. The meeting will evaluate the training activity and develop recommendations for future PREDICT laboratory protocol trainings. IDDS also will develop the activity report that will be submitted in FY 2022 Q3.</p>
IDN-GHS-SURV-1: Integrate Laboratory and Surveillance Systems and Revitalize 4-Way Linking (4WL)	Benchmark 4.1	In progress	<p>IDDS, in collaboration with the Directorate of Health Surveillance and Quarantine, MoH, held a preparatory meeting for the implementation of 4-Way Linking (4WL). This meeting aimed to provide input on improvements to the document “Guidelines for Implementation of 4WL for Management of Health Problems at Human, Animal, and Environmental Interfaces,” and to formulate an activity plan for the implementation of the 4WL Guidelines in the pilot area in May 2022. The meeting was conducted on March 23, at Aston Simatupang Hotel, Jakarta, and attended by nine in-person participants and seven online participants. At the meeting, the participants determined the target locations for 4WL pilot implementation in Demak District (Central Java) and Bandung Barat District (West Java), focusing on leptospirosis. Participants also determined implementation activities.</p> <p>In FY 2022 Q3, the pilot implementation of 4WL will be conducted.</p>
SURV-1.3: Develop 4-Way Linking Guideline revitalization review document based on the workshop result with GOI stakeholders	Benchmark 4.1	Not started	
SURV-1.5: Develop/revise 4WL document to revitalize 4WL implementation for various diseases	Benchmark 4.1	In progress	
SURV-1.7: Implementation Pilot of Revitalized 4WL document for various diseases at the cross-sectoral levels	Benchmark 4.1	In progress	

Indonesia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
IDN-GHS-SURV-2: Advance National Surveillance Integration in Indonesia	Benchmark 4.1	In progress	<p>IDDS, in collaboration with the Coordinating Ministry for Human Development and Culture, conducted the coordination meeting of the Cross-Sectoral Coordination of Zoonoses/ Emerging Infectious Diseases (EIDs) Prevention, Detection, and Response Working Group. The meeting was conducted online on February 22, with 125 participants attending. At the meeting, the Decree of the Deputy for Health Quality Improvement, Coordinating Ministry Human and Cultural Empowerment (Kemenko PMK) No. 12/2021 concerning the Working Group for the Coordination of the Prevention, Detection and Response of Zoonoses/EIDs across sectors was disseminated to all members of the working group and sub-working group. Meeting participants also collected and documented cross--sectoral coordination activities in the prevention, detection, and response of zoonoses/EIDs that were implemented in 2020–2021. Finally, the meeting also resulted in the development of the FY 2022 work plan for the working groups and sub-working groups.</p> <p>IDDS, in collaboration with the Directorate General of Disease Prevention and Control, MoH, and the G20 committee, held Webinar 1: Socialization of the One Health Self-Assessment Questionnaire to G20 member countries. The meeting was conducted on March 25 and 26 at the Gran Melia Hotel, Jakarta, and with 25 in-person participants and 25 online participants. The result of the meeting was that the One Health Self-Assessment Questionnaire was disseminated and is receiving feedback from G20 member countries.</p> <p>In FY 2022 Q3, IDDS will conduct Webinar 2: Sharing Best Practice on One Health Implementation among G20 Member Countries. It is planned to be held in May 2022, in collaboration with the Indonesia MoH, other related ministries/institutions, World Health Organization Indonesia, and related partners.</p>
SURV-2.1: Support and facilitate regular Integrated Surveillance SWG	Benchmark 4.1	Not started	
SURV-2.8: Support and facilitate the development of cross-sectoral integration surveillance system on zoonosis IED's and AMR/AMU guideline	Benchmark 4.1	In progress	
SURV-2.11: Implementation Pilot of Integrated Surveillance Guidelines document for various diseases at the cross-sectoral levels	Benchmark 4.1	Not started	

Indonesia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
			In FY 2022 Q3, the pilot implementation of integrated surveillance will be conducted. It will begin in May 2022 in Demak District (Central Java), focusing on leptospirosis.
IDN-GHS-SURV-3: Support the Development and Operationalization of Sistem Informasi Zoonoses Dan Emerging Infectious Diseases (SIZE) 2.0	Benchmark 9.2	In progress	<p>IDDS conducted an online informal discussion on January 17 with the Deputy Assistant for Control and Management of the Coordinating Ministry for Human Development and Culture and staff, to discuss suggestions for improving the <i>National Sistem Informasi Zoonoses Dan Emerging Infectious Diseases (SIZE) Roadmap</i> document. Eight participants attended from Kemenko PMK and IDDS. The SIZE consultant will revise a section of the National SIZE Roadmap documents based on the input from the Coordinating Ministry for Human Development and Culture. IDDS will facilitate the finalization and formalization of the Roadmap in FY 2022 Q3.</p> <p>IDDS, in collaboration with the National Research and Innovation Agency (formerly BPPT/ <i>Badan Riset dan Inovasi Nasional [BRIN]</i>) conducted the transfer of knowledge meeting to provide information on the SIZE technology platform for the technical team of relevant stakeholders. This activity also aims to prepare and provide input to agreements and policy directions nationally, through cross-sectoral coordination meeting forums. The meeting was conducted online on January 27, with 33 participants attending. The participants were from the Coordinating Ministry for Human Development and Culture, BRIN, the Ministry of Communication and Information, and international development partners (IDDS, World Health Organization, and Food and Agriculture Organization Indonesia). The result of this meeting was that the SIZE technology platform information has been transferred to the technical team of relevant stakeholders.</p> <p>IDDS, in collaboration with the Coordinating Ministry for Human Development and Culture, held the Coordination Meeting on SIZE</p>
SURV-3.3: Support the facilitation and reporting of the SIZE CG regular meeting	Benchmark 9.2	In progress	
SURV-3.5: Development of the SIZE Roadmap by identifying regulations needed and system gaps in SIZE 2.0 that require the attention of Gol and International Partners to	Benchmark 9.2	In progress	

Indonesia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
ensure the success of SIZE 2.0			3.0 Migration Acceleration and Preparation Formalization of the National SIZE Roadmap at Mirah Bogor on March 22. The meeting was attended by 34 participants. Following the meeting, SIZE 2.0 and 3.0 (host server) were successfully migrated from the former <i>Balai Jaringan Informasi dan Komunikasi</i> (Information and Communication Network Center) of BRIN to the Data National Center, Ministry of Communication and Information. A signing took place for the handover of SIZE 3.0 from BRIN to the head of the <i>Sistem Informasi dan Pengelolaan Data</i> (Information Systems and Data Management) Bureau of the Coordinating Ministry for Human Development and Culture. In addition, participants planned the finalization and formalization of the National SIZE Roadmap. In FY 2022 Q3, IDDS will conduct training on One Health and SIZE in several targeted districts in Indonesia. The training location will be determined in Q3 according to the input and assessment of priority indicators that will be carried out with the Government of Indonesia.
SURV-3.6: Support the development of a regulatory strategy on the operationalization of the SIZE	Benchmark 9.2	In progress	
SURV-3.9: Conduct training for the team managing SIZE 2.0 (Rabies) on data analytics, data visualization, and reporting	Benchmark 9.2	In progress	
SURV-3.10: Conduct training for OH concept and SIZE 2.0 for technical staff at a district level	Benchmark 9.2	In progress	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
KEN-GHS-NTW-1: Enhance national-level multi-sectoral antimicrobial resistance (AMR) detection and surveillance leadership and coordination	Benchmark 3.1	In progress	<p>IDDS continued to work with the United States Agency for International Development-funded Health IT project to monitor uptake of the antimicrobial resistance (AMR) surveillance training course on the Ministry of Health eLearning Academy as well as address any challenges based on feedback provided by learners. IDDS also facilitated the clustering of the course modules to 3 professional tracks: veterinary professionals (5 modules), laboratory professionals (10 modules), and other health professionals (5 modules). Upon completion of all modules for their professional cadre, the learners who can now visualize their quiz scores will be given a certificate of completion, which was designed by IDDS and Health IT this quarter. The certificate is awaiting signatory approval from the National Antimicrobial Stewardship Inter-Agency Committee (NASIC) Secretariat at the Ministry of Health. Health IT has also developed an analytics dashboard that summarizes learners' completion rates and generates reports.</p> <p>Four regulatory bodies accredited the AMR course: the Kenya Veterinary Board, the Nursing Council of Kenya, the Council of Clinical Officers, and the Pharmacy and Poisons Board.</p> <p>In FY 2022 Q3, IDDS will continue to work with Health IT to advocate for accreditation by other relevant regulatory bodies, especially the Kenya Medical Laboratory Technicians and Technologists Board, and the Kenya Medical Practitioners and Dentists Council. IDDS will also work closely with NASIC and Health IT to publicize the AMR course by designing and disseminating brochures through various professional platforms and will provide technical assistance to NASIC to record audio and video clips for specific modules of the AMR course.</p>
NTW-1.1: Create awareness on the AMR surveillance training course hosted at the Ministry of Health (MoH) e-learning academy, monitor its uptake, and provide technical assistance to address any challenges that arise during implementation		In progress	
NTW-1.2: Hold a follow-up meeting with professional and regulatory bodies to effect actions to allow award of continuing professional development (CPD) points to the learners who take the self-paced AMR surveillance training course on the MoH e-learning academy. This will entail (1) follow-up meetings with the regulatory bodies to present and defend the training materials, and (2) advocating for MoH to offset the required fees or get a waiver for award of CPD points.		In progress	
NTW-1.3: Revise the contents and format of the national AMR surveillance training materials hosted on the MoH e-learning academy to make them more user friendly and interactive, based on feedback received from learners and course managers. The project will also		Not started	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
collaborate with Health IT to record and upload video and audio clips as part of the content improvement.			
NTW-1.4: Participate in planning and progress review meetings of national and county antimicrobial stewardship interagency committees and provide technical assistance		In progress	
KEN-GHS-NTW-2: Strengthen detection of priority AMR surveillance pathogens at the five IDDS-supported surveillance sites	Benchmark 3.2	In progress	<p>In FY22 Q1, IDDS had initiated discussions with Aga Khan University Hospital (AKUH) and the five IDDS-supported counties on placement of laboratory technologists at the AKUH laboratory for on-bench skills development. In Q2, one laboratory technologist from each laboratory (Bungoma, Malindi, Kitale, Murang'a, and Nyeri counties) was placed at AKUH for two weeks to enhance skills on organism identification, antibiotic susceptibility testing (AST), and quality standards. The county technologists were individually placed for a two-week rotation between January 31 and April 1.</p> <p>To support the placement, IDDS, in consultation with AKUH and the counties, developed the minimum requirements for the laboratory technologists to be selected for placement and handled travel expenses for the laboratory technologists during the placement. In FY 2022 Q3 and Q4, IDDS will continue to monitor and mentor the laboratory technologists at their workstations, to ensure continued application and further development of the skills acquired.</p> <p>IDDS continued making logistics arrangements to support preventive maintenance and calibration of auxiliary equipment at</p>
NTW-2.1: Conduct field mentorship visits and provide onsite bench training to the five IDDS-supported counties to reinforce skills and competency on quality assurance, biosafety and biosecurity, organism identification (ID), and antimicrobial susceptibility testing (AST)		In progress	
NTW-2.2: Place surveillance site laboratory technologists in busy laboratories for a week to enhance skills on ID, AST, and quality standards		In progress	
NTW-2.3: Support preventive maintenance of microbiology equipment (i.e., servicing of automated equipment and calibration of select auxiliary equipment) in the five IDDS-supported AMR surveillance sites		In progress	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-2.4: Procure microbiology commodities to supplement county capacity based on the comprehensive list developed during fiscal year 20		In progress	<p>IDDS-supported AMR surveillance sites. IDDS issued a purchase order to BioMérieux to service the VITEK 2 compact automated identification and AST instrument at Kitale County Referral Hospital Laboratory. IDDS also engaged a biomedical engineer from the National Public Health Laboratories (NPHL) equipment calibration center to service auxiliary equipment at Murang'a County Referral Hospital Laboratory.</p> <p>As part of its support to ensure uninterrupted bacteriology diagnostics services, IDDS consulted with the five supported surveillance sites (Bungoma, Malindi, Kitale, Murang'a, and Nyeri county laboratories) to develop a list of required bacteriology supplies. These supplies include dehydrated culture media, AST disks, consumables for specimen collection, culture media plates, biochemical reagents, manual blood cultures, culture vials for automation, and reagents for automated identification and AST. IDDS sent out a request for quotations and expects to purchase and distribute the items in FY 2022 Q3.</p> <p>The automated bacteriology pathogen identification and AST platform (Phoenix M50) acquired by Nyeri County from Becton and Dickson company was installed. Laboratory personnel were trained by Becton and Dickson, and the platform is now in use. IDDS had helped advocate for placement of the equipment. Following discussions that IDDS mediated in previous quarters, Kitale County Referral Hospital Laboratory signed a contract with BioMérieux for the placement of an automated blood culture equipment (BacT/Alert). The equipment was delivered to the laboratory, and personnel were trained. IDDS procured 300 blood culture bottles (aerobic, anaerobic, and pediatric) for the</p>
NTW-2.5: Provide technical and logistical support to IDDS-supported AMR surveillance sites to acquire automated bacteriology equipment through placement		In progress	
NTW-2.6: Conduct two webinars in collaboration with other stakeholders on selected aspects of AMR detection and surveillance		In progress	
NTW-2.7: Provide technical assistance to the five IDDS-supported AMR surveillance sites to quantify, forecast, and budget for microbiology bacteriology commodities, to strengthen the microbiology commodities supply chain management system		Not started	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
			<p>laboratory to facilitate installation of the equipment and training of the personnel on its use.</p> <p>IDDS will support placement of identification and AST equipment in Murang'a, and blood culture equipment in Malindi in FY 2022 Q3 and Q4.</p> <p>On March 17, IDDS, in collaboration with Kenya Medical Research Institute Wellcome Trust, conducted a continuous medical education webinar on bacterial pneumonia diagnosis and clinical management, to promote diagnostic and antimicrobial stewardship (AMS) for better patient management. A total of 75 multidisciplinary teams comprising nurses, clinicians, pathologists, pharmacists, and laboratory personnel within Kenya and outside the country attended the webinar.</p>
KEN-GHS-NTW-3: Provide technical assistance to strengthen utilization of bacteriology testing capacity established at the five IDDS-supported AMR surveillance sites	Benchmark 7.2	In progress	<p>IDDS provided technical assistance to two counties to establish a coordination mechanism for integrated SRS inclusive of AMR surveillance specimens. On February 2, IDDS provided technical assistance to Bungoma County to convene its inaugural integrated SRS technical working group (TWG) forum. The Bungoma County TWG forum resolved to strengthen the SRS TWG as the county integrated specimen referral coordination mechanism, develop or revise tools such as the specimen referral forms and transportation logs, and revise the bacteriology tests request form to capture surveillance variables that are often missed. The forum also agreed on monitoring and evaluation quality indicators, as well as funding mechanisms for the SRS system. The TWG meeting brought together representatives from peripheral health facilities, the county, and other implementing partners. An efficient SRS for AMR surveillance specimens will promote evidence-based prescription of</p>
NTW-3.1: Provide assistance to two counties (Murang'a and Bungoma) to establish integrated specimen referral system (SRS) technical working groups (TWGs) and to develop a pilot plan for an integrated specimen referral system in their respective counties		Completed	
NTW-3.2: Provide technical assistance to two pilot counties to hold integrated specimen referral system TWG meetings.		Completed	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-3.3: Hold a one-day workshop in each IDDS-supported county to train/sensitize specimen transporters on handling of bacteriology specimens, among other infectious substances		Not started	antibiotics in patient management and generate representative AMR surveillance data for the county. Between February 3 and 10, IDDS collaborated with NASIC, County Antimicrobial Stewardship Interagency Committees, and the USAID-funded Medicines, Technologies, and Pharmaceutical Services program to conduct five one-day sensitization workshops to promote diagnostic and antimicrobial stewardship (AMS) (i.e., one workshop each for Bungoma, Kilifi, Murang'a, Nyeri, and Trans-Nzoia counties). Each session was facilitated by the county AMS coordinator, county medical laboratory coordinator, and clinical consultants. In attendance were NASIC representatives, county directors of health, laboratory technologists, clinicians, medical officers, and pharmacists from the respective county referral hospitals and high-volume sub-county hospitals. A total of 111 health personnel (50 female) were trained (Bungoma: 23, Kilifi: 22, Murang'a: 22, Nyeri: 19, Trans-Nzoia: 26). These represented the following cadres: 57 prescribers, 26 pharmacists, and 28 laboratory technologists. The trained health workers are expected to cascade down the trainings to their respective health facilities, and spearhead strengthening of diagnostic and AMS programs. IDDS continued to provide technical assistance to the National Microbiology Reference Laboratory (NMRL) to enter, clean, and analyze bacterial isolates retesting data. IDDS also provided logistical assistance to IDDS-supported surveillance sites to address challenges they encountered in the referral of bacterial isolates to NMRL. IDDS provided logistical and technical assistance for a workshop with NMRL and NASIC and 12 AMR surveillance sites, during which NMRL provided isolates retesting feedback and retrained the sites on isolates referral documentation and use of the bacterial isolates' referral guide. The workshop was held on March 2 in Machakos town. IDDS and NMRL encouraged surveillance sites that were not referring
NTW-3.4: Conduct a one-day refresher training for clinical and laboratory teams in peripheral health facilities on the role of microbiology and specimen collection/referral in each of the five IDDS-supported counties		Not started	
NTW-3.5: Provide assistance to two counties (Murang'a and Bungoma) to transport specimen from high-volume peripheral health facilities to the county referral hospital laboratories within existing specimen referral mechanisms		Not started	
NTW-3.6: Hold a one-day meeting with both clinical and laboratory personnel at each of the IDDS-supported sites to review AMR surveillance data and promote the use of diagnostics to improve prudent use of antibiotics		Completed	
NTW-3.7: Provide technical and logistical assistance to the IDDS-supported AMR surveillance sites to refer bacteriology isolates to the National Microbiology Reference Laboratory for external quality		In progress	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
assessment (EQA), using existing specimen referral mechanisms. This will involve support for packaging and transporting items and courier costs where applicable			isolates to start referring monthly. Isolates referral by surveillance sites is an external quality assessment (EQA) strategy to guarantee the quality of AMR surveillance data generated and uploaded to the national AMR surveillance data warehouse. Gaps observed will help inform future improvement actions at the surveillance sites.
KEN-GHS-NTW-4: Strengthen national- and county-level laboratory quality systems, including EQA and internal quality control processes	Benchmark 3.2	In progress	On March 2 and 3, IDDS, in collaboration with NASIC and NMRL, provided feedback to 12 AMR surveillance sites on the findings of EQA, and trained laboratory personnel from the 12 sites on effective documentation of corrective and preventive action in unsatisfactory EQA results. A total of 40 (16 female) participants attended the workshop held at Kyaka Hotel in Machakos. IDDS provided technical assistance to Nyeri County Referral Hospital to select bacteriology tests to include in the scope of accreditation by the Kenya National Accreditation Services, after which the laboratory made an application to for accreditation assessment. In FY 2022 Q3, IDDS will continue to mentor and train the surveillance site technologists in preparation for the assessment.
NTW-4.1: Provide technical assistance to National Antimicrobial Stewardship Inter-Agency Committee (NASIC) to conduct quarterly virtual EQA sessions targeting all AMR surveillance sites in the country		Not started	
NTW-4.2: Provide technical assistance to Nyeri County Hospital Laboratory and Malindi Sub-County Hospital Laboratory to include bacteriology tests (gram stain, culture, and antimicrobial susceptibility tests) in the scope of accreditation by Kenya Accreditation Service (KENAS)		In progress	
NTW-4.3: Provide technical and logistical support to the National Microbiology Reference Laboratory to hold a one-day workshop with all AMR surveillance sites in the country to strengthen laboratory quality management system		Completed	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-4.4: Conduct monthly monitoring of AMR detection and surveillance progress at the county level (i.e., virtual workload and quality monitoring using tools IDDS supported NASIC to develop during fiscal year 20)		In progress	
KEN-GHS-SURV-1: Enhance national- and subnational-level capacity to analyze, interpret, report, and use AMR surveillance data	Benchmark 3.2	In progress	<p>From January 16 to 22, IDDS conducted a two-day follow-up visit to Malindi and Nyeri to support implementation of WHONET statistical software to analyze and report the results of AST. During the visits, IDDS installed WHONET software (version 2021) on a computer and configured WHONET to reflect the hospital's needs. IDDS also conducted mentoring for two participants at each site (four total, three of whom were female), and piloted data entry using WHONET. IDDS also helped the laboratory teams extract data from the laboratory information system (LIS) and convert it to a WHONET file using BacLink, for data analysis. In FY 2022 Q3, IDDS will continue to virtually support sites to implement WHONET for AMR data management and analysis.</p> <p>On March 3 to 4, IDDS provided technical and logistics support to NASIC to convene a two-day workshop in Machakos. During the workshop, NASIC provided feedback to 12 surveillance sites on data quality gaps identified during the AMR Surveillance TWG data cleaning and analysis workshop held in August 2021. The feedback workshop was attended by 40 participants (16 female) from NASIC, NPHL, NMRL, the AMR Surveillance TWG, and the 12 sites participating in national AMR surveillance. During the meeting, participants discussed data quality gaps related to data completeness and timeliness, drug-organism combination mismatch, as well as organism-specimen mismatch. Participants</p>
SURV-1.1: Train staff from the five IDDS-supported sites on the use of WHONET software for AMR surveillance data analysis		Completed	
SURV-1.2: Conduct a two-day visit to each IDDS-supported AMR surveillance site to support site-specific implementation of WHONET by ensuring appropriate installation, data entry, and analysis		Completed	
SURV-1.3: Conduct in-person, semi-annual AMR surveillance stakeholder data review meetings with all AMR surveillance sites that are reporting in the country		In progress	
SURV-1.4: Review on a monthly basis data submitted to the Central Data Warehouse (CDW) from IDDS-supported and other AMR surveillance sites in the country to identify major gaps, including failure		In progress	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
to submit, poor timeliness, and incompleteness, and prepare internal summary of progress and actions to address identified gaps			also discussed systems and data transmission challenges affecting each surveillance site and agreed on potential solutions.
SURV-1.5: Organize quarterly virtual AMR surveillance data review meetings for AMR surveillance sites, NASIC, and other stakeholders to discuss submitted data and address any quality gaps		In progress	
SURV-1.6: Conduct semi-annual AMR surveillance supportive supervision to the sites jointly with NASIC and other stakeholders		Not started	
KEN-GHS-SURV-2: Enhance AMR surveillance data quality, sharing, and use within and across sectors and partners	Benchmark 3.2	In progress	IDDS provided technical inputs to the development of the AMR surveillance dashboards and linkage to the surveillance sites that require access to the dashboards.
SURV-2.1: Continue to work with the NASIC informatics team to refine and improve real-time AMR surveillance dashboard capabilities at the CDW based on feedback from surveillance sites and partners		Complete	
SURV-2.2: Support NASIC to develop a quarterly AMR bulletin for the country with a focus on the AMR surveillance content		In progress	
SURV-2.3: Support the development or generation of antibiograms for the five IDDS-supported sentinel surveillance sites		Not started	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
SURV-2.4: Support NASIC to collate, clean, prepare, and submit data to GLASS during the 2022 data call		Not started	
KEN-GHS-SURV-3: Strengthen national- and county-level integration and use of information systems to manage AMR surveillance data	Benchmark 9.2	In progress	<p>IDDS worked with NASIC to develop a scope of work and engage an informatics consultant to resolve ongoing information system and data transmission challenges. The consultant has been onboarded and will work with IDDS, NASIC, and NPHL to continue improving data transmission during FY 2022 Q3. Due to ongoing technical challenges to link the LIS to the Central Data Warehouse (CDW), and staffing shortages at NPHL, IDDS continued engaging a data clerk to enter Bungoma County AMR surveillance data into the WHONET software. In FY 2022 Q3, IDDS will work with NPHL, NASIC, and Bungoma County to review the effectiveness and user-friendliness of the current LIS (Basic Laboratory Information System). One of the proposals for a sustainable solution is to migrate the laboratory to LabWare LIS, which is being used in other sites in the country and for which there is expertise at the NPHL.</p> <p>IDDS is dropping support for linking the CDW with District Health Information Software, version 2 (DHIS2) because a similar activity is being covered by another implementing partner. NASIC, with the support of Foundation for Innovative New Diagnostics (also known as FIND), has developed an AMR One Health Surveillance System (AOHSS) platform hosted on DHIS2 that acts as a link between CDW and the World Health Organization Global Antimicrobial Resistance and Use Surveillance System. AOHSS will pull all AMR surveillance data from the animal and human health sectors and is expandable to include environmental data as well. AOHSS will also host antimicrobial use data being collected by the animal health sector. AOHSS will have comparative dashboards that will be used to visualize AMR situations in different sectors. IDDS participated in</p>
SURV-3.1: Provide IT technical support to NASIC to maintain AMR surveillance information systems and respond to system challenges at the CDW and AMR surveillance sites to assure uninterrupted transmission of data.		In progress	
SURV-3.2: Provide technical assistance to finalize the linkage of the Bungoma County laboratory information system to the CDW to share data in real time		Not started	
SURV-3.3: Provide technical assistance to NPHL informatics to link the AMR CDW to District Health Information Software, version 2 (DHIS2) to facilitate data exchange between the two sectors		Dropped	

Kenya GHS			
Activity	IHR benchmark	Status	Activity implementation updates
			the training on the use of AOHSS and provided feedback and suggestions to improve the system.

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
LBR-GHS-NTW-1: Provide technical assistance (TA) to the National Diagnostic Division (NDD) to support its diagnostic system leadership role	Benchmark 7.3	In progress	As a way of driving the National Diagnostic Division's (NDD) ownership of the project activities, IDDS convened a meeting on January 4 to discuss the work plan activities with the NDD technical team and provided technical assistance on the NDD leadership role in the diagnostic network. The meeting focused on ensuring active participation of the NDD technical teams in both national and county activities that IDDS and other partners are conducting. Following the meeting, the NDD technical director committed to taking leadership of all partner-led activities and promised to reach out to engage partners on all planned activities for 2022.
NTW-1.1: Strengthen NDD technical oversight of the laboratory system by providing technical guidance on coordination, collaboration, and continuous improvement of the laboratory network to the NDD staff at the central and county level		In progress	As part of the laboratory-core group meeting (NDD, National Public Health Reference Laboratory [NPHRL], World Health Organization, U.S. Centers for Disease Control and Prevention, and United States Agency for International Development IDDS), IDDS provided a virtual platform for the NDD and the NPHRL to discuss laboratory issues on a weekly basis. On March 23, IDDS provided a venue for an in-person meeting for the laboratory-core group team targeted at developing an action matrix of gaps found in the laboratory system.
NTW-1.2: Provide support for the NDD to conduct biannual laboratory review meetings with counties and stakeholders		In progress	The IDDS county diagnostic specialists in Lofa, Nimba, and Bong counties provided technical laboratory expert opinions and input to the county health teams on the county readiness to provide quality laboratory results and to the county diagnostic officers in strengthening the coordination of partners and their activities in the counties. In Bong county, IDDS provided coaching to the newly appointed laboratory director for Phebe Hospital on reviewing the laboratory request form to include bacteriology tests. IDDS also provided coaching to the county diagnostic officer on preparation of a mini budget for the distribution of microscopes and training and mentorship on their use in Bong county.
NTW-1.3: Provide TA on tracking the implementation of the laboratory strategic plan and policy		In progress	The biannual laboratory review meeting was delayed by one month following consultation with the NDD technical team and the IDDS diagnostic specialists. The meeting will be conducted in April 2022.

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
			IDDS provided financial support for the NDD technical team to conduct support and supervisory visits to the three supported counties of Lofa, Nimba, and Bong. The visits were conducted from February 20 to March 4. One of the areas of focus was to check the availability of strategic documents (Laboratory Policy and Strategic Plan). IDDS will provide technical assistance on data collection on the implementation of the strategic documents, which will be done in FY 2022 Q3 as per the NDD work plan.
LBR-GHS-NTW-3: Improve network efficiencies through the implementation of a decentralized integrated specimen referral system in the three supported counties (Lofa, Nimba, and Bong)	Benchmark 7.2	In progress	Following a bacteriology readiness assessment conducted by the NPHRL and the NDD, IDDS was advised to engage other stakeholders to pilot sample transport within Lofa county, because this effort will boost bacteriology testing in Lofa and increase the utilization of the Tellewoyan bacteriology laboratory. This activity will be initiated in April 2022. Following consultative meetings with the NDD, the NPHRL, and other stakeholders, it was agreed that the pilot activities (NTW3.1, 3.2, and 3.3) be suspended until the procurement of motorbikes for the county diagnostic officers by the World Bank project is completed because this will be a sustainable solution for specimen transportation in the country.
NTW-3.1: Support the development of county-specific operational frameworks for implementation of Integrated Specimen Transport in the supported counties		In progress	IDDS provided ongoing mentorship to laboratory personnel (Tellewoyan 2, GW Harley 4 (including 2 students on attachment) and Phebe 4) on specimen collection, packaging, and transport to and within the laboratories for accurate results. Mentorship was provided whenever clinicians requested assistance for specimen collection at the supported laboratories. IDDS also provided technical support to laboratory personnel in facilitating the flow of specimen collection, packaging, and transportation from county surveillance officers, district surveillance officers, and district facilities to the county hospital laboratory. In FY 2022 Q3, IDDS will continue providing mentorship to increase specimen flow to the laboratory.
NTW-3.2: Support the procurement of biosafe specimen courier boxes for transportation of bacteriology specimens to Tellewoyan laboratory in Lofa and provide funds to support the transportation of		In progress	

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
specimens using motorbikes			
NTW-3.3: Support transportation of bacteriology specimens to decentralized bacteriology testing laboratories in Lofa county		Not started	
NTW-3.4: Support training and mentorship to build capacity of laboratory staff at the district level on specimen management and shipping of priority pathogen specimens in Bong, Lofa, and Nimba counties		In progress	
LBR-GHS-NTW-4: Strengthen County level implementation of Strengthening Laboratory Management Toward Accreditation (SLMTA)-based quality management system (QMS) in the supported laboratories in Lofa, Nimba, and Bong counties	Benchmark 7.4	In progress	<p>IDDS provided facility-based waste management training on January 20 to 13 (1 female) laboratory staff members at Phebe Hospital in Bong county.</p> <p>IDDS provided Strengthening Laboratory Management toward Accreditation (SLMTA)-based quality management system mentorship to eight laboratories enrolled in the SLMTA program (Tellewoyan, Foya Boma, Curran, Phebe, CB Dunbar, Bong Mines, G.W. Harley, and Ganta Methodist hospital laboratories). Each of the district laboratories received two week-long on-site mentorship sessions between January 17 and March 25. In Bong County, Bong Mines received mentorship sessions from February 14 to 18 and March 14 to 18, with five participants mentored (one female). CB Dunbar received mentorship sessions from February 7 to 11 and March 7 to 11, with four participants mentored (one female). In Nimba, Ganta</p>
NTW-4.1: Provide SLMTA-based on-site mentorship and support		In progress	

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
visits to the facilities enrolled in QMS in Bong, Nimba, and Lofa			<p>Methodist received mentorship sessions from January 28 to February 4 and March 7 to 11, with six participants mentored (two female). In Lofa, Curran received mentorship sessions from February 14 to 18 and March 28 to April 1, with three participants mentored (one female). Foya Boma received mentorship sessions from February 7 to 11 and March 21 to 25, with two male participants mentored. Topics covered included the conduct of internal and safety audits, management review, and process control.</p> <p>IDDS had discussions with the NDD on the mentorship model and is currently working on a draft document that will be reviewed by the NDD in FY 2022 Q3.</p> <p>With guidance from IDDS diagnostic specialists, quality officers for G.W. Harley, Tellewoyan, and Ganta Methodist hospital laboratories conducted quality management system internal audits to check their own system compliance to ISO 15189:2012.</p> <p>The biannual audit was delayed, giving laboratories time to address the gaps identified during the mentorship sessions; the audit will be conducted in April 2022.</p> <p>IDDS convened meetings with the African Society for Laboratory Medicine training department to learn about the available training courses. A SLMTA trained and certified auditor/master trainer is available in the country, so IDDS will engage them to conduct the training.</p>
NTW-4.2: Develop a SLMTA-based mentorship model for Liberia based on the mentorship being provided in the three counties		In progress	
NTW-4.3: Conduct biannual Stepwise Laboratory Improvement Process Towards Accreditation (SLIPTA) audits to monitor SLMTA implementation in the IDDS-supported laboratories in the three counties		In progress	
NTW-4.4: Provide on-line QMS auditor training to five laboratory professionals		In progress	
NTW-4.5: Enroll facilities conducting bacteriology in an External Quality Assurance (EQA) proficiency testing scheme		In progress	

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
LBR-GHS-NTW-7: Strengthen capacity to perform and report quality-assured microbiology, including antimicrobial resistance (AMR) detection in the three supported counties	Benchmark 7.1	In progress	<p>IDDS provided financial support for the NPHRL and the NDD to conduct an assessment from February 20 to March 4, to validate the readiness of the bacteriology laboratories that were established with IDDS support. The findings of the assessments will be used to determine whether the IDDS-supported laboratories should be used for decentralized bacteriology testing for the NPHRL.</p> <p>IDDS provided financial support for the NDD bacteriology champion to provide bacteriology mentorship sessions to two bacteriology laboratories from January 24 to February 4 for Tellewoyan, and from February 21 to March 4 for G.W. Harley laboratory. A total of five participants (one female) received mentorship, including on processing of blinded specimens, quality control, and the use of WHONET software.</p> <p>With financial support from IDDS, the Ministry of Health Antimicrobial Resistance (AMR) Unit and the NDD conducted two-day AMR awareness visits to Phebe, Tellewoyan, and G.W. Harley hospital laboratories between January 10 and February 4. The visits included consultations with the clinician, laboratory, hospital infection prevention and control, and pharmacy teams to encourage good use of antimicrobials and reduce inefficient use of antibiotics.</p> <p>IDDS provided financial support for the printing of job aids to be posted at strategic points as a way of reminding clinicians of the availability of bacteriology testing at the three county laboratories. The IDDS diagnostic specialist assisted the bacteriology champion with the compilation and analysis of bacteriology data for Phebe laboratory and shared them with the MoH AMR Unit. A total of 63 bacteriology specimens were processed in the 3 bacteriology laboratories (Phebe: 44, G.W. Harley: 13, and Tellewoyan: 6).</p>
NTW-7.1: Provide on-site mentorship, in collaboration with the NDD and the National Public Health Reference Laboratory (NPHRL), on bacteriology culture and antimicrobial susceptibility testing of priority pathogens to the three facilities conducting bacteriology testing in the supported counties		In progress	
NTW-7.2: Provide TA on microbiology diagnostic stewardship		In progress	
NTW-7.3: Support procurement of bacteriology reagents and provide contracts for equipment service and calibration		In progress	
NTW-7.4: Strengthen bacteriology data		In progress	

Liberia GHS			
Activity	IHR benchmark	Status	Activity implementation updates
reporting to the central level			
NTW-7.5: Provide support for electricity for bacteriology work at Tellewoyan and G.W. Harley Hospital laboratories		In progress	

Mali GHS			
Activity	IHR benchmark	Status	Activity implementation updates
MLI-GHS-NTW-1: Map national diagnostic facilities and their capacities	Benchmark 7.3	In progress	<p>On January 26, IDDS had a working session with the <i>Direction de la Pharmacie et du Médicament</i> (Directorate of Pharmacy and Medication) to establish the list of diagnostic facilities to be mapped by region. As a result, a list of diagnostic structures for all regions except the Kidal region is available, with a total of 51 laboratories to be mapped.</p> <p>In FY 2022 Q3, IDDS will provide technical and financial support to the Directorate of Pharmacy and Medication to organize the laboratory mapping data collection in regions not yet covered, organize the data validation, and hold a workshop to upload data to the ONA platform in Mopti.</p>
MLI-GHS-NTW-1.1: Complete the mapping of the country's laboratory capacity by collecting data in the remaining regions (Mopti, Gao, Timbuktu, Kidal, Taoudenit, and Menaka) (continuation of activities started in FY 2021)		In progress	
MLI-GHSA- NTW-1.2: Hold a data verification and validation session (in Mopti) with data collectors before uploading on to the ASLM platform (continuation of activities started in FY 2021)		Not started	
MLI-GHS-NTW-2: Strengthen diagnostic equipment systems (procurement, availability, operating status, and preventive maintenance)	Benchmark 7.3	In progress	<p>IDDS provided technical and financial support to the <i>Institut National de Sante Publique</i> (INSP) to hold a meeting of the multisectoral committee for laboratory system strengthening on February 17. The meeting participants were the 15 multisectoral committee members from the key ministries of the One Health platform. The objectives of the meeting were to: (1) validate the minutes of the previous meeting, (2) share the status of FY 2021 activities, and (3) share FY 2022 work plan activities. IDDS has initiated the purchase of commodities for COVID-19 gene sequencing at INSP. Delivery of these commodities is scheduled for April 2022.</p> <p>In FY22 Q3, IDDS will continue to provide financial and technical support to the multisectoral committee meetings and support INSP to conduct the first round of biannual equipment maintenance follow-up visits to the regional hospital laboratories (Segou, Mopti, and Sikasso), which received equipment maintenance training with support from IDDS. In Q1, it was</p>
MLI-GHS- NTW-2.1: Work with the equipment committee to support the development or revision of national equipment policies, guidelines, and standard operating procedures (SOPs) through one meeting every other month (continuation of activities started in FY 2020)		In progress	
MLI-GHS-NTW-2.2: Provide a limited quantity of testing reagents for priority pathogens for the two IDDS-supported facilities: National		Not started	

Mali GHS			
Activity	IHR benchmark	Status	Activity implementation updates
Institute of Public Health (Institut National de Santé Publique (INSP) and the laboratory of Segou Regional Hospital			<p>reported that the first round of biannual equipment maintenance follow-up visits would occur in Q2. However, the funding for this activity was allocated to the second half of the annual budget, so it was pushed to Q3.</p> <p>Also, in FY 2022 Q3, IDDS will work with the multisectoral committee to provide a limited quantity of testing reagents for priority pathogens for the two IDDS-supported facilities: INSP and the Segou Regional Hospital laboratory.</p>
MLI-GHS-NTW-2.3: Support INSP to conduct an annual equipment maintenance follow up visit to regional hospital laboratories which received training with IDDS support (Segou, Mopti, and Sikasso)		Not started	
MLI-GHS-NTW-2.4: Develop a costed plan for identified equipment needs (maintenance contracts, equipment repair, and/or procurement) (continuation of activities started in FY20) to be done during a 3-day workshop		Not started	
MLI-GHS-NTW-3. Strengthen support for the accreditation process for the serology section at the National Institute of Public Health (Institut National de Santé Publique (INSP) and the laboratory of Segou Regional Hospital	Benchmark 7.3	Not started	<p>This activity will start in FY 2022 Q3. In Q1, it was reported that this activity would occur in Q2. The funding for this activity was allocated to the second half of the annual budget, so it was pushed to Q3.</p>
MLI-GHS-NTW-3.1: Organize two assessment and coaching visits for the Quality Management System (QMS) consultant to INSP and Ségou Hospital (continuation of activities started in FY 2020)		Not started	
MLI-GHS-NTW-3.2: Conduct quarterly visits to INSP and the		Not started	

Mali GHS			
Activity	IHR benchmark	Status	Activity implementation updates
Segou Regional Hospital Laboratory to follow up the implementation of the international QMS expert assessment recommendations (continuation of activities started in FY 2020)			
MLI-GHS-SURV-1: Support community-based surveillance (CBS) standardization and implementation by continuing support to districts already covered (Kadiolo, Kati, and Kangaba) and expanding to Sikasso and Kadiolo health districts, according to the national expansion plan produced with IDDS support	Benchmark 9.1	In progress	<p>IDDS financially supported communication costs (SMS and Internet fees) for community-based surveillance actors in the health districts of Kadiolo, Kati, and Kangaba. IDDS continued monitoring the quality of the data collected from the health districts of Kadiolo, Kati, and Kangaba.</p> <p>In FY 2022 Q3, IDDS will continue data monitoring and provide technical and financial support to the <i>Direction General de la Sante et de l'Hygiene Publique</i> (DGSH, or General Directorate of Health and Public Hygiene) to conduct the first round of biannual post-training supervision visits and data review in the Kadiolo, Kati, and Kangaba health districts. In Q1, it was reported that the first round of biannual post-training supervision visits and data review would occur in Q2. The funding for this activity was allocated to the second half of the annual budget, so it was pushed to Q3.</p> <p>Also, in FY 2022 Q3, IDDS will provide technical and financial support to DGSH to expand community-based surveillance (training, tool printing, equipment purchasing, and communication fees) to the Kolondieba and Sikasso health districts.</p>
MLI-GHS-SURV-1.1: Support the communication costs (SMS and internet fees) of CBS actors in the health districts of Kadiolo, Kati, and Kangaba (continuation of activities started in FY 2021)		In progress	
MLI-GHS-SURV-1.2: Print and hand over CBS data collection tools to the health districts of Kadiolo, Kati, and Kangaba (continuation of activities started in FY 2021)		Completed	
MLI-GHS-SURV-1.3: Conduct semi-annual supportive supervision visits to CBS actors in the health districts of Kadiolo, Kati, and Kangaba (continuation of activities started in FY 2021)		Not started	

Mali GHS			
Activity	IHR benchmark	Status	Activity implementation updates
MLI-GHS-SURV-1.4: Expand CBS (introduction visit, trainings, and equipment) to two health districts of the Sikasso region (Sikasso, Kolondieba)		Not started	
MLI-GHS-SURV-2: Strengthen Integrated Disease Surveillance and Response (IDSR) geographical areas that have underperforming surveillance reporting and support the updating of national guides	Benchmark 9.3	In progress	IDDS worked with the health districts in Segou region to produce terms of reference and budgets for the first round of biannual Integrated Disease Surveillance and Response supportive supervision visits to underperforming community health centers. In FY 2022 Q3, IDDS will provide technical and financial support to Segou region to conduct the first round of biannual Integrated Disease Surveillance and Response supportive supervision visits to underperforming community health centers. In Q1, it was reported that this activity would occur in Q2. Although it started in Q2, the completion of the activity was pushed to Q3 because the funding for this activity was allocated to the second half of the annual budget.
MLI-GHS-SURV-2.1: Support health districts in Ségou region to organize two rounds of quarterly IDSR supportive supervision visits to underperforming community health centers (continuation of activities started in FY 2020)		In progress	
MLI-GHS-SURV-3: Improve sharing of real-time monitoring information	Benchmark 9.2	In progress	IDDS provided financial, technical, and coordination support to the DGSHP to produce three bulletins (December 2021, Annual 2021, January 2022). All the bulletins were uploaded to the IDDS-developed surveillance website. The February and March 2022 bulletins will be produced in FY 2022 Q3. The bulletin for February was not produced in Q2 because the DGSHP was not available. The bulletin for March cannot be processed before April 15 due to continued data entry through that date. In FY 2022 Q3, IDDS will provide financial and technical support to produce and disseminate four bulletins (February, March, April, and May 2022). IDDS will also support the DGSHP to hold the
MLI-GHS-SURV-3.1: Provide technical assistance to the Direction Generale de la Sante et de l'Hygiene Publique (DGSHP) to develop and disseminate IDSR monthly and annual bulletins to stakeholders at central, regional, and district levels (continuation of activities started in FY 2020)		In progress	

Mali GHS			
Activity	IHR benchmark	Status	Activity implementation updates
MLI-GHS-SURV-3.2: Support DGSHP internet connection for surveillance document storage and data monitoring through the developed web-based online platform (continuation of activities started in FY 2021)		Completed	first online training session for surveillance officers in the different regional health directorates (<i>Direction Regionale de la Santé</i>) on the use of the web-based platform developed with IDDS support for surveillance information and document sharing.
MLI-GHS-SURV-3.3: Support DGSHP to hold two online training sessions for surveillance officers in the different regional health directorates (<i>Direction Regionale de la Santé, DRS</i>) on the use of the web-based platform		Not started	

Senegal GHS			
Activity	IHR benchmark	Status	Activity implementation updates
SEN-GHS-NTW-1: Strengthen capacity of IDDS-supported laboratories for implementation of the National Standard Operating Procedures (SoPs) for AMR Surveillance	Benchmark 3.2	In progress	From March 14-18, IDDS and the Directorate of Laboratories conducted an assessment of capacities and needs of two new laboratories, Polyclinique Medina and Mbour. The assessment report is under development in close collaboration with the Directorate of Laboratories, which led this activity in the field. For this task, the assessment tool that IDDS developed in 2019 and was validated by the Ministry of Health to assess the capacity of the seven IDDS-supported sites was used. The tool was adapted from the Centers for Disease Prevention and Control antimicrobial resistance (AMR) assessment tool (version June 2007), the Laboratory Assessment of Antibiotic Resistance Testing Capacity version 2.0 (August 2019), and the Stepwise Laboratory Improvement Process Towards Accreditation version 2 (2015). Based on the assessment findings, in FY 2022 Q3, IDDS will develop a procurement plan to support the two new laboratories to start performing bacteriology tests, including antimicrobial susceptibility testing.
NTW-1.1: Provide equipment, microbiology reagents, and consumables to two new diagnostic facilities in order to have adequate commodities for AST		In progress	
NTW-1.2: Provide technical assistance to two newly supported diagnostic facilities to adapt and implement the National SOPs for AMR		Not started	
NTW-1.3: Support the Directorate of Laboratories to conduct hands-on training of lab personnel on AMR detection and surveillance in two new facilities		Not started	
SEN-GHS-SURV-1: Increase the capacity of IDDS-supported sites to report high quality AMR data electronically, completely, and on time	Benchmark 3.2	In progress	Three of the seven IDDS-supported facilities (Linguere, Kaffrine, and Tivaoune) are up to date on monthly AMR data reporting. IDDS is following up with the head of Guediawaye and Richard Toll laboratories to report their data; there are delays in reporting at

Senegal GHS			
Activity	IHR benchmark	Status	Activity implementation updates
SURV-1.1: Provide TA and training to the designated facilities for AMR surveillance to begin reporting AMR data electronically		In progress	these laboratories due to staff shortages. This issue has been reported to the Ministry of Health. Touba and Sedhiou laboratories have not yet started performing AMR detection. Supportive supervision of the seven IDDS-supported laboratories is planned to be completed in April 2022.
SURV-1.2: Conduct supportive supervision of IDDS-supported laboratories on DHIS2 reporting of AMR data		In progress	
SEN-GHS-SURV-2: Improve the quality of surveillance data reported into DHIS2 in two new regions as well as in the previous two regions	Benchmark 9.2	In progress	IDDS completed training of surveillance officers and chief medical officers of the three health districts of the Kedougou medical region (Salemata, Saraya, and Kedougou) on March 19. A total of 27 staff (12 females) were trained. The Tambacounda session will take place in FY 2022 and will train 32 staff members.
SURV-2.1: Organize training at the regional and district level on DHIS2 quality modules (i.e., data verification and data approval) in Tambacounda Region, St. Louis Region, and two new regions		In progress	
SURV-2.2: Support quarterly data review meetings at the regional level		Not started	
SURV-2.3: Conduct supportive supervision in the Tambacounda and St. Louis regions and in two		Not started	

Senegal GHS			
Activity	IHR benchmark	Status	Activity implementation updates
additional regions to improve the quality of reported data in low performing health districts			

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
TZA-GHS-NTW-1: Support national diagnostics supply chain logistic system to ensure essential, quality-assured microbiology commodities are available at IDDS-supported AMR surveillance sites to enable uninterrupted detection of AMR	Benchmark 3.2	In progress	<p>IDDS organized a three-day workshop in Morogoro from January 31 to February 2, to clean data in the Tanzania Electronic Logistics Management Information System to ensure that microbiology commodities are coded into the system, grouped by utility, and available for order by users at the facility level. The purpose of this exercise was to strengthen the supply chain of microbiology commodities for antimicrobial resistance (AMR) surveillance and ensure that the Electronic Logistics Management Information System has a comprehensive list of microbiology commodities (with assigned catalogue numbers) by which facilities can easily report stock levels and order microbiology commodities. Additionally, IDDS provided financial support to facilitate the redistribution of laboratory supplies among two IDDS-supported sites (Temeke and Morogoro Regional Referral Hospitals) to optimize utilization, minimize stock loss due to expiration, and enable uninterrupted detection of AMR at the sites.</p> <p>IDDS completed the procurement and delivery of sheep blood to IDDS-supported sites in March 2022. IDDS also initiated procurement of other AMR testing supplies, such as media and supplements, biochemical identification tests, and reagents and antibiotic sensitivity discs for AMR testing. IDDS anticipates finalizing these procurements in FY 2022 Q3. IDDS provided financial and logistics support for five National Public Health Laboratory microbiology experts to carry out supportive supervision visits at the four IDDS-supported AMR surveillance sites (Benjamin Mkapa Hospital and Maweni, Morogoro, and Temeke Regional Referral Hospitals), from February 28 to March 11. The aim of the supportive supervision visits was to follow up on implementation of the external quality assurance program, conduct root cause analysis, and carry out corrective action for poor performance. IDDS will follow up on the implementation of the corrective actions during supportive supervision and mentorship programs in FY 2022 Q3.</p>
NTW-1.1: Procure microbiology laboratory commodities, including sheep blood and standard organisms, to support uninterrupted culture and antimicrobial susceptibility testing (AST) for priority pathogens		In progress	
NTW-1.2: Conduct bi-annual onsite mentorship programs with integrated supportive supervision on supply chain and inventory management for laboratory supplies required for AMR testing		Not started	
NTW-1.3: Support a workshop to review microbiology commodities, standardize according to tier, assign catalogue numbers and incorporate into the electronic Logistics		In progress	

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
Management Information System (eLMIS)			
NTW-1.4: Support annual microbiology commodity forecasting and quantification meeting. (IDDS will incorporate input from the national quantification team and laboratory experts from AMR surveillance sites during the quantification exercise.)		Not started	
NTW-1.5: Support annual preventive maintenance, minor repairs (as needed), and calibration of main equipment in the microbiology laboratory at the IDDS-supported sites		In progress	
NTW-1.6: Assist the NPHL to provide proficiency testing and external quality assessment materials to participating laboratories including IDDS-supported sentinel sites		Completed	
TZA-GHS-SURV-1: Enhance AST performance, AMR data collection, analysis and reporting on urine, blood and wound specimens at IDDS-supported sites	Benchmark 3.2	In progress	Between February 14 and 18, IDDS provided financial and technical assistance for a workshop in Morogoro that was led by clinicians and clinical microbiologists from the National Public Health Laboratory and Muhimbili University of Health and Allied Sciences. During the workshop, staff from the four IDDS-supported AMR surveillance sites and eight peripheral health centers collaborated to develop standard

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
SURV-1.1: Conduct bi-annual onsite mentorship programs with integrated supportive supervision on clinical sample collection, handling, culture, AST, result reporting, and archiving		Not started	<p>case definitions and patient eligibility criteria for culture and antimicrobial sensitivity testing (AST) of urine, blood, and wound site specimens. The goal of the workshop was to sensitize laboratory staff, clinicians, nurses, and other health care providers on the clinical criteria that a priority specimen (blood, urine, or wound site [pus]) should meet to be collected and sent to the laboratory for culture and AST. This should, in turn, increase the quantity and quality of priority specimens sent for AST, optimize utilization of laboratory reagents and supplies, improve clinical management and recovery rate for patients with priority pathogen infections, and reduce unnecessary workload for laboratory staff.</p> <p>On February 28 and March 1, IDDS provided financial and logistics support for an AMR Surveillance Technical Working Group meeting held in Dar es Salaam. The project used this opportunity to present the progress toward implementation of IDDS activities and ensure the visibility of the IDDS's contribution to national AMR data.</p>
SURV-1.2: Work in collaboration with stakeholders, Integrated Disease Surveillance and Response (IDSR) and AMR actors, and clinicians to develop standards/eligibility criteria/case definition for culture and AST in urine, blood, and wound-site specimens		Completed	
SURV-1.3: Provide logistics and financial support for one national TWG surveillance meeting and ensure visibility for the contribution of IDDS activities to national AMR data		Completed	
SURV-1.4: Participate in key coordination mechanisms (e.g., WHO-IHR annual conference organized by Prime Minister's Office and the One Health		Not started	

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
coordination desk) as needed			
TZA-GHS-SURV-2: Pilot AMR surveillance at the community level	Benchmark 3.2	In progress	<p>From February 14 to 18, IDDS trained 17 clinicians and 7 laboratory staff (24 total, 11 female) from peripheral health facilities in the catchment area of the four IDDS-supported regional referral hospitals on the procedures for screening and referring clinically eligible patients to their respective referral hospitals for AMR testing in the regional laboratories. The community-level AMR surveillance pilot activities are intended to support the Government of Tanzania to develop capacity for detecting and reporting AMR from subnational levels to the national level and eventually to the Global Antimicrobial Resistance and Use Surveillance System. On completion of the pilot, the regional sites should be able to track the AMR burden in their respective communities, generate representative AMR data, and develop antibiograms, which will enhance data utilization for patient management and inform planning for interventions such as infection prevention and control and antimicrobial stewardship programs.</p> <p>Building on the joint site visit conducted in FY 2022 Q1, and under advice from the mission, IDDS and the United States Agency for International Development-funded Medicines, Technologies, and Pharmaceutical Services project sponsored a joint session for two technical working groups on AMR surveillance and antimicrobial stewardship at the national level on March 1 in Dar es Salaam. This joint meeting aimed at improving AMR data sharing and use across different interventions and exploring areas in which different interventions can bring synergy in addressing the AMR problem in the country.</p>
SURV-2.1: Provide technical assistance to one or two IDDS-supported regional facilities to analyze AMR surveillance data from samples referred from peripheral facilities to track AMR at the community level		In progress	
SURV-2.2: Prepare and present AMR data to national coordination mechanisms (e.g., AMR surveillance and research technical working group, Multisectoral Coordination Committee [MCC], and others as needed)		Not started	
TZA-GHS-SURV-3: Enhance AMR data quality for reporting and use at subnational, national, and global levels	Benchmark 3.2	In progress	<p>IDDS continued to conduct periodic AMR data reviews, which enhanced AST performance and AMR data collection, analysis, and reporting for urine, blood, and wound specimens at four IDDS-supported sites. The FY 2022 Q2 data quality review meeting was held from January 17 to 21. IDDS and the four supported AMR surveillance sites (Benjamin Mkapa Hospital and Maweni, Morogoro, and Temeke Regional Referral</p>
SURV-3.1: Conduct bi-annual data quality assessment review at the		In progress	

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
four IDDS sites in collaboration with NPHL and other AMR stakeholders			Hospitals) assessed the quantity and quality of AMR data collected from the sites and submitted to the national level between July 1, 2021, and December 31, 2021. The IDDS sites used the joint meeting to discuss the data and share their experiences, best practices, and lessons learned to improve the quality of the data reported to the national level and, subsequently, to the Global Antimicrobial Resistance and Use Surveillance System. IDDS financially supported a meeting of the National AMR Surveillance Technical Working Group on February 28. During the meeting, IDDS presented its support for data quality improvement at supported sites.
SURV-3.2: Prepare quarterly data quality reports for the four IDDS sites, based on routine AMR data that are submitted from sites to the national level		In progress	
SURV-3.3: Provide technical assistance on AMR data analysis, interpretation, management, presentation, and reporting to enable sentinel sites to develop facility-specific antibiograms for patient management		In progress	
SURV-3.4: Conduct quarterly data collection to track progress of AMR activities and facilitate quarterly reporting		In progress	
TZA-GHS-SURV-4: Support implementation of National AMR Surveillance Framework in animal health surveillance sites	Benchmark 3.2	In progress	Between February 28 and March 4, IDDS provided technical, financial, and logistics support to enable staff from the Tanzania Veterinary Laboratory Agency to assess laboratory capacity to detect and report AMR in two veterinary laboratories in Dodoma and Iringa Regions, using the Food and Agriculture Organization of the United Nations Assessment Tool for Laboratories and AMR Surveillance Systems (FAO-ATLASS tool). The final report from this activity will inform the government and partners about the existing laboratory and surveillance
SURV-4.1: Review veterinary AMR surveillance sites listed in		Completed	

Tanzania GHS			
Activity	IHR benchmark	Status	Activity implementation updates
the NASF and identify one site for IDDS to support SURV-4.2: Conduct assessment at one selected veterinary AMR surveillance site to establish laboratory and surveillance capacity, equipment and supply needs, current personnel capacity, and training needs		In progress	capacity of these facilities, equipment and supply needs, current personnel capacity, and training needs for implementation of the National AMR Surveillance Framework in these animal health surveillance sites.

Uganda GHS			
Activity	IHR benchmark	Status	Activity implementation updates
UGA-GHS-NTW-4: Improve quality management systems for priority zoonotic diseases in four (Gulu, Mbale, Mbarara, and Moroto) supported Regional Animal Disease Diagnostics and Epidemiology Centers (RADDECs)	Benchmark 7.4	In progress	<p>IDDS, in collaboration with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), National Animal Disease Diagnostics and Epidemiology Center (NADDEC), Ministry of Health, National Livestock Resources Research Institute (NaLIRRI), and district government officials, conducted a third on-site mentorship exercise (March 7 to 18) at the four Regional Animal Disease Diagnostics and Epidemiology Centers (RADDECs) in the IDDS-supported districts of Gulu, Moroto, Mbale, and Mbarara, to implement quality management systems (QMS) as per the ISO 17025:2017 standard requirements. This was an on-site mentorship exercise that involved dispatching two QMS experts/mentors per RADDEC in QMS to work with the site-based teams to implement and put in place evidence to satisfy the ISO 17025 standard requirements of clause 6 and follow up with the implementation of clauses 4, 6, and 8.</p> <p>IDDS provided technical support to MAAIF/NADDEC, in collaboration with NaLIRRI, to conduct a QMS document review workshop aimed at standardizing the developed QMS system policy documents and procedures as per the ISO 17025:2017 requirements. This activity was conducted from January 31 to February 4, and had eight participants, including quality managers (mentees) at the four implementing RADDECs of Gulu, Moroto, Mbale, and Mbarara paired with one mentor who has been supporting these different sites. This activity ensured that all the implementing RADDECs have standardized documents in place, such as policy documents, standard operating procedures, and forms that will support the QMS implementation.</p> <p>IDDS, working together with the Bio Risk Management department of the Ugandan Ministry of Health, NaLIRRI, MAAIF/NADDEC, and the</p>
NTW-4.1: Conduct a third on-site mentorship as per the established mentorship cycle guidance in the mentorship tool kit to strengthen laboratory systems in line with ISO 17025:2017 at the four IDDS-supported RADDECs (Gulu, Mbale, Mbarara, and Moroto). The third cycle will focus on resource requirements 6.1–6.6 and a follow up on the process improvement plans from the second mentorship cycle (which was conducted in FY21)		Completed	
NTW-4.2: Hold workshops with key stakeholders to review quality management documents (e.g., relevant SOPs, Quality Manual, Laboratory Handbook and Biosafety Manual) and align content with ISO 17025:2017		Completed	

Uganda GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-4.3: Hold a training on Biosafety and Bio risk management for national and regional laboratory staff based on the new ISO 15190:2020 and ISO 35001:2019		Completed	Uganda Wildlife Authority (UWA), conducted a biosafety and biosecurity in-person training of laboratory directors and safety managers from the four IDDS-supported RADDECs, NaLIRRI, and UWA, as part of the mandatory trainings to satisfy ISO 35001:2019 (which defines requirements for a Bio Risk Management program) and ISO 15189:2020 (which defines requirements for safety in medical laboratories). The training was conducted from March 21 to 25 in Jinja district and targeted 13 participants from the facilities of Gulu (2), Moroto (2), Mbale (2), Mbarara (2), NADDEC (2), UWA Murchison Veterinary Lab (1), and NaLIRRI (2). This training was facilitated by four International Federation of Bio Risk Management-certified trainers. The training will improve the Bio Risk Management aspects of the laboratories, especially in the areas of safety and biosecurity because these laboratories deal with dangerous pathogens. IDDS worked closely with the MAAIF/NADDEC, the Ministry of Health, the African Society of Laboratory Medicine, and South African National Accreditation System auditors to conduct a Correction Action Prevention Action in-person training from March 28 to April 1 in Jinja district. This training targeted 11 quality managers from the different QMS implementing laboratories of Moroto (1), Gulu (1), Mbarara (1), Mbale (1), NADDEC (3), NaLIRRI (2), and UWA-Queen Elizabeth National Veterinary Laboratory (2). The training was facilitated by four African Society of Laboratory Medicine auditors and will help the laboratories identify, evaluate, and conduct root cause analysis leading to corrective and preventive actions during QMS implementation. Implementation of the FY 2022 work plan started in Q2 because IDDS did not obtain the exemption allowance memo (waiver) approvals until December 15, 2021. As a result, some activities are delayed. All remaining sub-activities in NTW-4 will be completed in FY 2022 Q3 and Q4.
NTW-4.4: Hold a training on auditing management systems based on ISO 19011:2018 for national laboratory staff		Not started	
NTW-4.5: Conduct a fourth on-site mentorship as detailed in the mentorship tool kit to strengthen laboratory systems in line with the ISO 17025:2017 at the four IDDS-supported RADDECs (Gulu, Mbale, Mbarara, and Moroto). This cycle of mentorship will focus on process requirements 7.1–7.10 and follow up on the process improvement plans from the third cycle of mentorship (conducted under NTW-4.1)		Not started	
NTW-4.6: Hold training on corrective action, preventive action (CAPA), and handling nonconformities based on ISO 17025:2017		In progress	
NTW-4.7: Train 15 to 20 participants from the national and regional laboratories in statistical process control, including		Not started	

Uganda GHS			
Activity	IHR benchmark	Status	Activity implementation updates
uncertainty of measurement and method and equipment verification and validation			
NTW-4.8: Hold a virtual training on annual management review for the four IDDS-supported RADDEC		Not started	
NTW-4.9: Support an internal audit at each of the four supported RADDECs (Gulu, Mbale, Mbarara, and Moroto) using South African National Accreditation System (SANAS) audit tools and the auditors trained under NTW-4.4		Not started	
UGA-GHS-SURV-5: Operationalize coordinated surveillance and reporting as outlined in the Uganda One Health Strategic Plan 2018 – 2022 at two selected districts	Benchmark 4.1	Completed	In collaboration with the National One Health Platform, IDDS trained district One Health teams in Mbale and Kazo districts from January 17 to 28. A total of 40 district staff (14 female) were trained on the implementation of coordinated surveillance using a One Health approach at a subnational level. Trainees were from the district human health office, the water and natural resources department, the district veterinary office, and UWA. This activity decentralized the implementation of One Health and improves coordination of surveillance of priority zoonotic diseases.
SURV-5.1: Support the National One Health Platform (NOHP) to provide sensitization on the integrated OH surveillance and reporting, operationalizing this strategy in two locations		Completed	
UGA-GHS-SURV-6: Improve surveillance and data analysis of priority zoonotic diseases in the animal health sector at four selected district sites	Benchmark 9.3	In progress	In collaboration with the NADDEC, IDDS installed and piloted an electronic data entry and analysis tool in the districts of Gulu, Mbale, Mbarara, and Moroto. The installation was done from February 6 to 19, and IDDS trained 60 persons (12 female) on the use of the tool. After the installation of the new data entry and analysis database tool, the pilot was initiated and is expected to be completed in FY 2022 Q3.
SURV-6.1: Install the new electronic data entry and analysis		Completed	

Uganda GHS			
Activity	IHR benchmark	Status	Activity implementation updates
database tool in selected districts and train the district staff			<p>In FY 2022 Q3, IDDS will hire a consultant who will incorporate feedback gathered from the pilot of the electronic tool to create the updated version of the tool. In addition, a training of trainers in data analysis will be conducted in Q3.</p> <p>Implementation of the FY 2022 work plan started in Q2 because IDDS did not obtain the exemption allowance memo (waiver) approvals until December 15, 2021. As a result, some activities are delayed.</p> <p>All remaining sub-activities in SURV-6 will be completed in FY 2022 Q3 and Q4.</p>
SURV-6.2: Pilot new data entry and analysis database tool in four selected districts		In progress	
SURV-6.3: Review and update the electronic system based on feedback and observations from pilot		In progress	
SURV-6.4: Support Trainer of Trainers (TOT) on data analysis and use at the national level		Not started	
SURV-6.5: Support the training of veterinary staff from the four selected districts on data analysis, routine data quality assessment, and use		Not Started	
SURV-6.6: Conduct geo-spatial mapping of GHS partner support in IDDS-supported regions		Not started	
SURV-6.7: Hold first data review meetings at national level		Not started	
SURV-6.8: Hold data review meetings at four districts		Not started	

Vietnam GHS			
Activity	IHR benchmark	Status	Activity implementation updates
VNM-GHS-NTW-1: Strengthen the Human Specimen Referral System (SRS)	Benchmark 7.2	In progress	To prepare for the human specimen referral system (SRS) pilot in Dong Thap, Binh Dinh, and Thai Nguyen provinces, IDDS developed and shared a preliminary version of the human specimen information management application with the provincial and district facilities. IDDS also developed a video on incident handling during specimen transport.
NTW-1.8: Continue implementing the pilot human SRS in the three pilot provinces (Binh Dinh, Dong Thap, and Thai Nguyen), monitor and provide technical assistance to the sites		In progress	In Dong Thap province, IDDS conducted a meeting with the Pasteur Institute of Ho Chi Minh City and Dong Thap Provincial Center of Disease Control (PCDC) to discuss plans to use a human specimen referral information management application and provided training on use of the application for 22 laboratory staff (12 female) from Dong Thap PCDC and provincial health centers on January 11. IDDS also provided refresher training on specimen packaging and incident handling for 20 laboratory staff (13 female) from PCDC and district medical health centers and 3 participants from the Phuoc Loc courier company on March 8. In addition, IDDS finalized the specimen transport standard operating procedures (SOPs) and accompanying forms and disseminated them to Dong Thap PCDC. IDDS also prepared and distributed kits with materials and tools to handle specimen leakage and spillage during the transport to all health facilities and courier staff in the province. Finally, IDDS negotiated and finalized the contract with a private local courier company that will provide a specialized specimen transport service in the province. In FY 2022 Q3, IDDS will continue to provide support on implementing proper specimen packaging and transport.
NTW-1.9: Develop the advocacy roadmap with key stakeholders of the Government of Vietnam (GVN) on Social Health Insurance (SHI) coverage of specimen referral costs in the human health curative sector		In progress	In Binh Dinh province, IDDS initiated negotiations with two private courier companies that will provide specialized specimen transport services. In FY 2022 Q3, IDDS will finalize the service contract with the courier companies to support the SRS pilot in Binh Dinh. IDDS is planning to roll out the specimen transport and referral training and distribute the SOPs in early April 2022.
NTW-1.10: Evaluate the pilot human SRS, including technical performance measures, operational costs, and potential to reduce costs per specimen referred once scaled up		Not started	In Thai Nguyen province, IDDS initiated discussions with two courier companies to establish specimen transport services in the province. IDDS also finalized the specimen transport SOPs and accompanying forms and disseminated them to the Thai Nguyen PCDC. In FY 2022 Q3, IDDS will finalize a specialized transport service contract with courier companies to support the

Vietnam GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-1.11: Refine the human SRS based on results from the pilot and make recommendations for scale-up/application of the system to additional provinces/sites		Not started	SRS pilot as well as provide training on SRS SOPs to local health staff and courier staff who will be involved in the pilot in Thai Nguyen province. IDDS hired a consultant to lead the development of an advocacy roadmap with key stakeholders of the Government of Vietnam (GVN) on Social Health Insurance coverage of specimen referral costs in the human health curative sector. The consultant is in the process of identifying key personnel in the government.
VNM-GHS-NTW-2: Strengthen the Animal SRS	Benchmark 7.2	In progress	To prepare for the animal SRS pilot in Dong Thap, Binh Dinh, and Thai Nguyen provinces, IDDS developed and shared a preliminary version of the animal specimen information management application with the provincial and district facilities. IDDS also developed a video on incident handling during specimen transport.
NTW-2.7: Continue implementing the pilot animal SRS in the three pilot provinces (Binh Dinh, Dong Thap, and Thai Nguyen), monitor, and provide technical assistance to the sites		In progress	In Dong Thap province, IDDS conducted a meeting with the Regional Animal Health Office 7 (RAHO 7) and the Dong Thap Sub-Department of Animal Health (SDAH) to discuss plans to use the animal specimen information management application and provided training on the use of the application for 22 laboratory staff (8 female) from Dong Thap SDAH and district animal health facilities on January 12. IDDS also provided refresher training on specimen packaging and incident handling for 24 laboratory staff (6 female) from SDAH and district animal health facilities on March 11. In addition, IDDS disseminated the finalized SOPs and accompanying forms to the Dong Thap SDAH. IDDS also prepared and distributed spill kits comprising materials and tools to handle specimen leakage and spilling during the transport to all animal health facilities and courier staff in Dong Thap. Finally, IDDS negotiated and finalized the contract with a private local courier company that will provide a specialized specimen transport service in Dong Thap province. In FY 2022 Q3, IDDS will continue to provide support on implementing proper specimen packaging and transport in Dong Thap province.
NTW-2.8: Evaluate the pilot animal SRS on various aspects, including technical performance measures, operation costs, and potential to reduce costs per specimen referred once scaled up		Not started	

Vietnam GHS			
Activity	IHR benchmark	Status	Activity implementation updates
NTW-2.9: Refine the animal SRS based on results from the pilot and make recommendations for scale-up/application of the system to additional provinces/sites		Not started	In Binh Dinh province, IDDS initiated negotiations with two private courier companies that will provide specialized specimen transport services. In FY 2022 Q3, IDDS will provide training on SRS and distribute the SOPs to local health staff and courier staff who will be involved in the pilot in Binh Dinh province. In Thai Nguyen province, IDDS initiated discussions with two courier companies to establish specimen transport services in the province. IDDS provided refresher training on specimen packaging and incident handling for 21 participants (4 female) from SDAH and district animal health facilities on March 29. IDDS also finalized the specimen transport SOPs and accompanying forms and disseminated them to the staff of Thai Nguyen SDAH.
VNM-GHS-SURV-1: Increase use of Vietnam Animal Health Information System (VAHIS)	Benchmark 9.2	In progress	In collaboration with the RAHOs, IDDS organized five virtual bimonthly meetings from February 28 to March 2 to review the use of the Vietnam Animal Health Information System (VAHIS) in the five pilot provinces (Binh Dinh, Can Tho, Dong Thap, Khanh Hoa, and Thai Nguyen). In the meetings, IDDS provided technical support to provincial SDAH staff to correct errors on VAHIS data entry. IDDS also discussed with RAHO and SDAH staff the plan to extend VAHIS use to the district level. All five SDAHs agreed to assess the need for VAHIS use at the district level. In FY 2022 Q3, IDDS will support provincial and regional animal health agencies to improve VAHIS reporting timeliness, completeness, and accuracy. IDDS will also continue to provide technical support for the operationalization of the pilot VAHIS use enhancement plan in the five pilot provinces, ensuring that all the outbreak data are entered into VAHIS on time and accurately and training VAHIS users. IDDS provided technical support to RAHOs to organize three virtual quarterly VAHIS data review meetings from March 23 to 30. In the meetings, epidemiologists from the Department of Animal Health, RAHO, SDAHs, and IDDS reviewed the animal disease data of the project provinces in VAHIS and discussed ways to improve timeliness, completeness, and accuracy in reporting. In FY 2022 Q3, IDDS will develop a set of tools (e.g., outbreak investigation forms) to support commune and district-level staff in collecting and reporting
SURV-1.7: Operationalize the pilot VAHIS use enhancement plan developed in FY21 in the five provinces (Binh Dinh, Can Tho, Dong Thap, Khanh Hoa, and Thai Nguyen)		In progress	
SURV-1.8: Assist RAHOs and provincial SDAHs to conduct quarterly data reviews and propose solutions to improve VAHIS reporting timeliness,		In progress	

Vietnam GHS			
Activity	IHR benchmark	Status	Activity implementation updates
completeness, and accuracy			animal disease data to SDAH. IDDS will also provide training for local staff on animal disease data collection and reporting.
SURV-1.9: Evaluate and refine the model for strengthening VAHIS use at regional, provincial, and lower levels		Not started	
VNM-GHS-SURV 3: Support event-based surveillance (EBS) using One-Health approaches	Benchmark 4.1	In progress	<p>IDDS continued to provide virtual support and coaching to provincial and district surveillance staff on recording and classifications of event-based surveillance (EBS) signals and events to improve accuracy and coverage in Dong Thap and Thai Nguyen provinces. During the past two years, human health staff in the two provinces have been extremely busy with responding to the COVID-19 pandemic and facing difficulties in implementing EBS procedures. The reporting rates of signals and events of public health concern have not met the level that IDDS hopes to achieve under this activity.</p> <p>In collaboration with the Pasteur Institute of Ho Chi Minh City, IDDS organized EBS supportive supervision at provincial, district, and commune levels in Dong Thap province on March 9. Provincial-level participants included 10 surveillance staff of the Dong Thap Center for Disease Control. At the district level, 8 surveillance staff of the Thap Muoi District Health Center and Chau Thanh District Health Center participated. At the commune level, 4 surveillance staff of the Phu Dien Commune Health Station (Thap Muoi district) and the Tan Nhun Dong Commune Health Station (Chau Thanh district) participated. IDDS also collaborated with the National Institute of Hygiene and Epidemiology to organize EBS supportive supervision at the provincial, district, and commune levels in Thai Nguyen province on March 30. Provincial-level participants included 10 surveillance staff of the Thai Nguyen Center for Disease Control. At the district level, 8 surveillance staff of the Dai Tu District Health Center and Song Cong District Health Center participated. At the commune level, two (2) surveillance staff of the Duc Luong Commune Health Station (Dai Tu district) and three (3) surveillance staff of the Binh Son Commune Health Station (Song Cong district) participated.</p>
SURV-3.6: Monitor and provide technical assistance to the two existing pilot provinces (Dong Thap and Thai Nguyen), including online support/coaching and on-site supportive supervision.		In progress	
SURV-3.7: Coordinate with relevant human and animal health agencies to conduct quarterly data reviews		In progress	
SURV-3.8: Evaluate and refine the approach and materials and develop		Not started	

Vietnam GHS			
Activity	IHR benchmark	Status	Activity implementation updates
a transition plan to phase out this activity			<p>IDDS also conducted quarterly EBS data review meetings in Dong Thap province on March 10 with 34 participants (10 female)—most of whom were surveillance officers—from the human health sector (32 participants) and animal health sector (2 participants); and in Thai Nguyen province on March 31 with 29 participants (19 female)—most of them surveillance officers—from the human health sector (27 participants) and animal health sector (2 participants). In these supportive supervision and quarterly data review meetings, limitations of reported data, challenges, and potential solutions in EBS implementation were discussed and addressed.</p> <p>The evaluation and refinement of the IDDS-supported EBS approach is planned to start in FY 2022 Q3.</p>

Tuberculosis Activity Implementation Progress

CORE TB		
Activity	Status	Activity implementation updates
CTB-NTW-1: TB-NET tool Revisions and Translation	In progress	IDDS received feedback from the United States Agency for International Development (USAID) and completed developing a checklist to assess the capacity and availability of testing for first- and second-line drug susceptibility testing. The checklist was piloted in the Ethiopia TB Diagnostic Network Assessment (DNA). In FY 2022 Q3, IDDS will use lessons learned from Ethiopia to update the drug-resistant (DR) TB checklist as needed.
NTW-1.2: Develop quality control component for Remote TB DNA	Not started	
NTW-1.4: Adapt TB Net Tool to include more information on DR-TB	Completed	
CTB-NTW-2: Conduct the TB DNA	In progress	IDDS continued the data collection and analysis for the LNA in Burma, Ethiopia, Tanzania, and the Philippines. In Burma, IDDS made a presentation to stakeholders in February and provided additional guidance on inclusion of private sector providers in the analysis. Final presentations and reports for all four countries are expected in FY 2022 Q3.
NTW-2.1: Conduct laboratory diagnostic network analyses in USAID Priority Countries	In progress	
NTW-2.2: Expand the Laboratory Network Spatial Analysis (LNA) tool to incorporate second-line drug susceptibility testing (DST)	In progress	IDDS produced final reports and presentations for the Democratic Republic of the Congo (DRC), Kenya, and Zambia. An additional analysis was conducted for DRC to support placement of GeneXpert instruments and digital X-ray equipment procured with Global Fund support. In FY 2022 Q3, IDDS will incorporate DST access into the LNA and pilot this in Malawi.
NTW-2.3: Expand, update, and verify the roster of consultants able to implement DNAs	In progress	
NTW-2.4: Conduct DNAs	In progress	IDDS submitted a final version of the spatial analysis protocol for comment and approval by USAID. IDDS will use this protocol to train others (e.g., the Ethiopia Public Health Institute and the Uganda Supranational TB Reference Laboratory) to conduct their own analyses, assuming that geographic information system and data manipulation expertise is available.
NTW-2.5: Track status of LNAs and DNAs for all USAID priority countries	In progress	

CORE TB		
Activity	Status	Activity implementation updates
		<p>In January 2022, IDDS completed the Tanzania TB DNA and participated in a dissemination event hosted by the African Society for Laboratory Medicine. In FY 2022 Q3, IDDS will print and distribute hard copies of the report to all provincial TB offices and selected district TB offices.</p> <p>IDDS continued providing technical guidance on conducting the TB DNA in Ethiopia. IDDS collaborated with the Ethiopia Public Health Institute and the in-country logistics partner, Management Sciences for Health, to complete the second and third steps of the TB DNA. For these steps, IDDS participated and provided technical guidance during the self-assessment phase of the TB DNA held February 7 to 11 and virtually trained 26 individuals (4 female) who served as external consultants for the verification visits. IDDS also conducted verification visits from March 4 to 18. Ten teams of 2–3 verifiers visited about 78 sites (including reference laboratories, regional laboratories, hospitals, health centers, national programs, and regional health bureaus). In addition, IDDS presented preliminary findings and recommendations to stakeholders on March 18.</p> <p>In FY 2022 Q3, IDDS will work with consultants to finalize the Ethiopia TB DNA assessment report. IDDS will also update the TB DNA consultants' roster by including participants from the Ethiopia TB DNA who will be capable of conducting DNAs in other countries.</p>
CTB-NTW-3: TB Diagnostic New Tools Implementation	In progress	<p>IDDS and the Stop TB Partnership completed delivery of Truenat instruments. A total of 15 Truenat Duo instruments were delivered to Cambodia, and 38 were delivered to each of the following countries: Bangladesh, DRC, the Philippines, Uganda, and Vietnam.</p> <p>IDDS financed and helped facilitate centralized Truenat training for 26 participants (12 female) in Uganda on February 14 to 18. Participants included laboratory managers, National TB Reference Laboratory staff, National TB Program (NTP) representatives, and other decision makers involved with modifying the TB diagnostic</p>
NTW-3.1: Develop curriculum and training materials for Truenat introduction	Completed	
NTW-3.2: Introduce Truenat in iNTP and non-iNTP countries	In progress	
NTW-3.3: Introduce / Scale-	Not started	

CORE TB		
Activity	Status	Activity implementation updates
up diagnostic connectivity solutions		<p>algorithm and operational planning for Truenat implementation. In DRC, IDDS helped finance and facilitate the training of 41 participants (17 female) across three (3) regional Truenat trainings, held between March 22 and 31. A fourth regional training will take place in FY 2022 Q3.</p> <p>IDDS hosted a Truenat end-user refresher training for 19 end-users (8 female) in Zimbabwe on March 31. This provided an opportunity for the end-users to share challenges, lessons learned, and best practices.</p> <p>IDDS provided training support for ultra-portable X-ray/computer-aided detection (CAD) devices for increased access to digital X-ray to diagnose TB in rural settings. In Uganda, IDDS financed and helped facilitate a centralized, theoretical training on February 7 and 8 for decisionmakers and end-users on the use of ultra-portable X-ray/CAD for 20 participants (7 female) prior to the hands-on manufacturer training by Delft. In DRC, IDDS helped train eight participants (all male) in a centralized training for X-ray/CAD on March 23 to 25. In Vietnam, IDDS financially supported X-ray/CAD theoretical training sessions for national decisionmakers (February 16 to 18) and end-users (March 2 to 4 and March 9 to 11), with a total of 65 participants (9 female).</p> <p>IDDS collaborated with the Stop TB Partnership to revise the training modules and facilitator guides for X-ray/CAD and Truenat implementation. IDDS updated the French and Vietnamese translations of these materials. In addition, IDDS collaborated with the Ugandan Introducing New Tools Project team to localize the Truenat and X-ray/CAD training materials prior to the respective centralized training sessions. The Truenat training materials are also being used by country programs such as Cambodia.</p>

CORE TB		
Activity	Status	Activity implementation updates
		<p>IDDS contracted with SmartSpot, a long-established <i>Mycobacterium tuberculosis</i> external quality assurance (EQA) provider in Africa, to provide validated dry culture spot panels for Truenat sites. A total of 20 sites in Zimbabwe received the first cycle of EQA in January 2022 and are in process of testing the EQA panels. In addition, Uganda and Cambodia received their first cycle of EQA in March 2022 and are preparing distribution to the Truenat sites. The remaining Introducing New Tools Project countries participating—Bangladesh, DRC, Kenya, the Philippines, and Vietnam—will receive their panels in FY 2022 Q3. These panels will provide an early assessment of the effectiveness of the Truenat implementation and identify weaknesses, which will help direct additional super-user technical support resources to low-scoring sites.</p> <p>SmartSpot and IDDS hosted remote training sessions for Zimbabwe and Bangladesh on the EQA reporting process for end-users (14 participants) on February 9 and group managers (8 participants) on March 2. IDDS shared the recordings with all end-users in Zimbabwe, including those who were not able to attend the live training sessions, to further assist with the reporting process.</p> <p>IDDS developed a super-user support package, with the aim to provide ongoing technical support, supervision, and mentorship to the Truenat sites in each country until sites become comfortable and proficient with the new rapid molecular test. IDDS has developed super-user training materials, job aids, key performance indicator data collection tools, and a site visit checklist.</p> <p>IDDS piloted the super-user training for 15 participants (1 female) in Zimbabwe on March 28 to 30. Training included theoretical as well as hands-on sessions using the Truenat instrument, so super-users gained valuable expertise. Lessons learned from the pilot training will be used to improve super-user training activities planned for</p>

CORE TB		
Activity	Status	Activity implementation updates
		FY 2022 Q3 in Cambodia, DRC, Kenya, and Uganda.
CTB-NTW-4: Introduce Stool-Based Diagnosis Using WRDs for Children	In progress	IDDS continued to advance the introduction of stool-based diagnosis using GeneXpert for children in USAID-supported countries.
NTW-4.1: Build IDDS capacity to support pediatric TB detection	In progress	Activities in Ukraine have paused due to the current war situation.
NTW-4.2: Expand access and use of simple-one step specimen processing protocol	In progress	IDDS is in discussions with KNCV Tuberculosis Foundation about providing a master training package (training and mentorship) on the simple one-step stool (SOS) method to consultants identified by the Uganda Supranational TB Reference Laboratory so that they can later lead subsequent training under KNCV's mentorship. A scope of work has been agreed on, and contractual arrangements will be finalized in FY 2022 Q3.
NTW-4.3: Expand use of community and home-based stool specimen collection	Not started	<p>In DRC, IDDS collaborated with the NTP to finalize the protocol for implementing the SOS stool processing method. The DRC ethics committee approved the protocol. IDDS and the NTP revised the training plan and implementation timelines. With these revisions, the training is scheduled for FY 2022 Q3.</p> <p>IDDS participated in weekly planning meetings and translated the training materials and job aids into French.</p> <p>In Malawi, IDDS participated in calls to discuss the implementation of the SOS method. IDDS worked with the Malawi NTP and other national stakeholders to revise and adapt the implementation protocol and submit it to the ethics committee. IDDS is also working with national stakeholders to develop a training and implementation plan for Malawi, which is expected to be finalized in FY 2022 Q3.</p> <p>IDDS translated the generic SOS method protocol into Portuguese. The protocol</p>

CORE TB		
Activity	Status	Activity implementation updates
		<p>will be shared with the national stakeholders in Mozambique to guide the localization of the process in FY 2022 Q3.</p> <p>IDDS is developing an electronic brief to guide USAID priority countries to expand diagnostic testing to include stool specimens in line with the new and updated World Health Organization recommendations.</p>
CTB-NTW-5: Mono-Isoniazid and Second-line Drug Resistance Testing Strengthened in USAID Priority Countries	Not started	<p>IDDS developed Country Action Plans (CAPs) for five of six countries where DR-TB activities will be implemented in FY 2022—Cambodia, Malawi, Mozambique, Pakistan, and Ukraine. Development of the CAPs followed discussion with USAID and national stakeholders. Of these, USAID approved the CAPs for Malawi and Ukraine; however, activities are on hold indefinitely in Ukraine. Start-up activities in Malawi began with the initiation of the broader mission-funded TB work plan. IDDS also received contingent approval for the Cambodia CAP following submission of an additional concept note describing the rationale behind the placement of GeneXpert machines in the country.</p> <p>IDDS onboarded a DR-TB program coordinator and DR-TB monitoring and evaluation specialist to support activity implementation. In FY 2022 Q3, IDDS will continue to finalize the CAPs for all countries and begin implementing activities.</p>
NTW-5.0: Preparation and Management of DST	Not started	
NTW-5.1: Increased number of patients with confirmed rifampicin resistance receiving fluoroquinolone resistance testing	Not started	
NTW-5.2: Increased number of patients with drug susceptibility testing for isoniazid.	Not started	
NTW-5.3: Increased capacity for susceptibility testing for new and repurposed drugs	Not started	
NTW-5.4: Health care providers follow DST algorithms reflective of WHO guidance	Not started	
NTW-5.5: DST quality and timeliness improved	Not started	
NTW-5.6: Evaluations and	Not started	

CORE TB		
Activity	Status	Activity implementation updates
Recommendations		
CTB-NTW-6: Share Relevant Information to a Wide-ranging Audience	In progress	<p>IDDS identified eight documents (initially developed by IDDS TB-focused countries) to be produced for knowledge dissemination in other countries as global public goods. These documents include the Xpert multiplexing guide, standard operating procedures on detection of extensively drug-resistant TB, TB-LAM and Xpert utilization manuals, training curriculum for technician/radiographer, TB chest X-ray quality improvement framework guide, and the TB DNA manual. The editing and production of these documents are expected to be completed in FY 2022 Q3.</p> <p>As of March 2022, there were seven studies under development or in implementation in six IDDS TB countries, including the following: Zimbabwe (Ultra trace calls results, clinically diagnosed TB patients using chest X-ray and other TB clinical signs, and smear microscopy hub strategy studies); India (Truenat indeterminate/invalid results, Trueprep DNA studies); and Cambodia (feasibility of Truenat implementation pilot study). In addition, the bacteriologically confirmed TB (Bacc-TB) study is planned to be conducted in DRC, India, Tanzania, Vietnam, and Zimbabwe. IDDS secured the ethical approvals from ICF Institutional Review Board for the clinically diagnosed TB cases and smear microscopy hub strategy studies (Zimbabwe). The implementation update of the above-mentioned studies is reported in FY 2022 Q2 country-specific progress reports.</p> <p>Regarding the Bacc-TB study, IDDS developed a full research protocol to investigate the causes of global stagnation and the impact of the systematic use of rapid molecular tests in case detection of bacteriologically confirmed TB. IDDS also obtained buy-in for the study from the NTPs of four out of five selected countries (DRC, Tanzania, Vietnam, and Zimbabwe). Buy-in from India is pending. The Bacc-TB study protocol has been submitted to ICF Institutional Review Board for ethical clearance. It is anticipated that the approval process will be completed in FY 2022 Q3, and data collection will start by the end of Q3 or early Q4 at the latest.</p>
NTW-6.1: Document best practices, guidance, and models	In progress	
NTW-6.2: Convene a TB technical working group across the project and the consortium	In progress	

Bangladesh TB		
Activity	Status	Activity implementation updates
BGD-TB-NTW-1: A comprehensive TB diagnostic network with strong underlying health systems	In progress	IDDS organized a workshop at the Chhuti resort in Gazipur for implementation costing of the TB Laboratory Strategic Plan, including costing of terms of reference activities, on March 6 and 7. There were a total of 17 participants (3 female), including representatives from the National TB Program (NTP), such as the line director, deputy program manager, and training coordinator, as well as focal persons for laboratory training, procurement, and finance, and non-governmental organization (NGO) TB implementing partners. In FY 2022 Q3, IDDS will submit the final version of the costing plan to the NTP, after the feedback and comments received through the workshop are incorporated. Also, in Q3, IDDS will organize two preventive maintenance trainings, one at the Chattogram Regional TB Reference Laboratory (RTRL) and the other at the Khulna RTRL.
NTW-1.1: Continue to support the NTRL and NTP to finalize and operationalize a functional national TB laboratory network, regional and peripheral TB (GX) laboratory facilities according to the developed Terms of Reference (TORs)	In progress	
NTW-1.3: Enable functional TB diagnostic equipment	In progress	
BGD-TB-NTW-2: Strengthened capacity of the national, regional, and peripheral GeneXpert (GX) TB laboratories	In progress	IDDS organized a Laboratory Working Group meeting with the NTP on February 20, to discuss activities planned for strengthening the laboratory network and adjust the timeline for implementation of activities as per Laboratory Working Group recommendations. In FY 2022 Q3, IDDS will finalize the monitoring and supervision checklists for the National TB Reference Laboratory (NTRL) and RTRLs to supervise their respective tiers of laboratories.
NTW-2.1: Enhance NTRL capacity to serve as the lead institution of the TB diagnostic network	In progress	
NTW-2.2: Continue to strengthen the Sylhet and Rajshahi RTRLs and the Shyamoli TB Hospital and expand support to the Khulna and Chattogram RTRLs to expand TB diagnostic services at those facilities	In progress	
NTW-2.3: Propose and get buy-in to transition the NTRL testing activities to a more suitable space	In progress	

Bangladesh TB		
Activity	Status	Activity implementation updates
NTW-2.4: Develop an e-learning platform for TB laboratory capacity building	In progress	services and ensure their quality. In FY 2022 Q3, IDDS will organize a workshop with the NTP to validate the QMS training, monitoring, and supervision materials and conduct QMS, monitoring, and supervision training for the NTRL and RTRL staff.
NTW-2.5: Strengthen laboratory capacity for testing Extra-pulmonary TB (EPTB) and childhood TB at Rajshahi, Sylhet, Khulna, Chattogram RTRLs, Shyamoli TB Hospital, and Rangpur (selected laboratory)	In progress	IDDS and a biomedical engineer from the NTP visited the Rajshahi RTRL on March 15, to assess the refurbishment needs to improve the facility and to install an autoclave procured by the NTP. The NTP requested IDDS's technical support for the installation of the autoclave to ensure the required water pressure and disposal system. IDDS is preparing the specifications of the refurbishment to support the work of a local contractor. IDDS will complete the refurbishment work of the Rajshahi RTRL in FY 2022 Q3.
NTW-2.6: Strengthen and expand the specimen referral network for increased access to culture/DST and LPA	In progress	<p>IDDS visited the Shyamoli laboratory on March 27 and developed specifications for additional refurbishment work as per the approved work plan and budget. IDDS will complete the refurbishment work of the Shyamoli laboratory in FY 2022 Q3.</p> <p>IDDS started the refurbishment work of training and external quality assurance (EQA) rooms at the Sylhet RTRL. IDDS developed a scope of work and collected quotes for certification of Biological Safety Level 3 for the Sylhet RTRL. IDDS selected Air Filter Maintenance Services International South Africa as the service provider, which has done the installation and yearly certification of Sylhet since commissioning the laboratory.</p> <p>In FY 2022 Q3, IDDS will conduct a physical assessment of the Chattogram RTRL, develop specifications for refurbishment work for expansion of line probe assay, and complete the refurbishment work of Chattogram RTRL through a local contractor.</p>

Bangladesh TB		
Activity	Status	Activity implementation updates
		<p>IDDS continued working with the NTP to shift routine diagnostic activities from the NTRL to the Shyamoli RTRL. Limited human resources at the Shyamoli RTRL are preventing it from taking increased diagnostic responsibilities. The mission concurred with IDDS's proposal to recruit an additional diagnostic specialist for the Shyamoli RTRL.</p> <p>IDDS initiated the procurement process to contract an information technology firm for designing and hosting the e-Learning platform, through which the IDDS-developed biosafety and biosecurity training will be offered.</p> <p>IDDS developed and submitted the standard operating procedures (SOPs) for specimen collection and transport for extra-pulmonary TB (EPTB) and childhood TB to the NTP for review.</p> <p>IDDS organized and conducted a training on processing and testing of EPTB and childhood TB specimens for 12 medical technologists and medical officers (4 female) from the Damien Foundation on March 30 and 31. The training was organized in collaboration with the Damien Foundation at its laboratory in Mymensingh. In FY 2022 Q3, IDDS will organize workshops to finalize SOPs for line probe assay and EPTB.</p> <p>IDDS placed an order for falcon tubes, which are expected to be delivered by May 10. The tubes will be used at the NTRL and RTRLs.</p>
BGD-TB-NTW-3: Functional network of TB laboratories using molecular techniques is established	In progress	IDDS updated the SOP and monitoring checklist for GeneXpert (GX) to align with the current national policies and guidelines and submitted them to the NTP for review. The purpose of this is to address the low utilization rate of GX and to strengthen monitoring and supervision of GX sites.
NTW-3.1: Implement a package of comprehensive and linked	In progress	

Bangladesh TB		
Activity	Status	Activity implementation updates
interventions enabling functional GX sites at the national and subnational levels and connecting the sites with regional reference laboratories		IDDS finalized the subcontract agreements and shared them with the Bangladesh Rural Advancement Committee (BRAC) and the Damien Foundation for review and signature. The Damien Foundation has already signed the contract. The partner organizations are expected to start work in April 2022. In FY 2022 Q3, IDDS will assist NGO partners with recruitment and placement of medical technologists at selected sites for GX operation.
NTW-3.2: Continue to support improving access and utilization of GX	In progress	Also, in Q3, IDDS will continue to collect and monitor data on GX utilization. IDDS organized a training of trainers on GX ASPECT in partnership with SystemOne on February 24, in Dhaka, to develop the NTP's capacity on the use of the ASPECT dashboard, data analysis and reporting for real time decision-making. The ASPECT system will enable the NTP to conduct real-time monitoring of the functionality and utilization of GX for all sites. A total of 30 participants (4 female), including 10 microbiologists from different RTRLs and 20 supervisory-level staff from the NTP responsible for using the ASPECT dashboard, attended the training of trainers.
NTW-3.3: Develop an External Quality Assurance (EQA) program for rapid diagnostic tests	In progress	IDDS organized and participated in a virtual meeting between the NTP of Bangladesh and the NTRL of Vietnam on January 17, to discuss the implementation of GX EQA in Bangladesh. IDDS completed the selection of 80 GX sites for EQA. IDDS completed the localization and translation of the GX EQA SOP. In FY 2022 Q3, IDDS will organize an orientation meeting with laboratory staff from the NTRL and RTRLs on the EQA process and reporting, as well as facilitating the shipment of EQA specimens to the selected 80 sites, specimen testing, and test result reporting through the electronic Proficiency Testing platform.
NTW-3.4: Support installation and functioning of GX for bidirectional testing of TB and COVID-19 among TB presumptive cases and patients	Not started	IDDS has not started sub-activity NTW-3.4, because the NTP is in the process of procuring GX equipment for bidirectional testing of TB and COVID-19.

Bangladesh TB		
Activity	Status	Activity implementation updates
BGD-TB-NTW-4: Piloting of new technologies and tools to improve TB diagnosis	In progress	<p>IDDS organized a workshop on February 6, to finalize Truenat training materials and tools. A total of 18 participants attended, including representatives from the Ministry of Health, Family, and Welfare, the NTP, the NTRL, United States Agency for International Development STAR fellows, BRAC, and the Damien Foundation. All materials, including reporting and recording formats, were reviewed in groups. IDDS incorporated the feedback received during the workshop and finalized the training materials and tools. IDDS completed the pre-installation assessment of 38 Truenat sites; 24 sites met installation requirements, and 14 sites did not meet the requirements, primarily due to security concerns. In collaboration with BRAC and the Damien Foundation, IDDS identified the 14 replacement sites. IDDS plans to finalize the revised Truenat site list in discussion with the NTP in FY 2022 Q3. IDDS staff received the orientation on Truenat EQA methodology organized by SmartSpot on March 2. This orientation built capacity of IDDS staff to serve as trainers for the laboratory staff who will conduct the EQA at their respective sites to ensure quality of Truenat testing.</p> <p>In FY 2022 Q3, IDDS will support NGO partners to complete minor facility improvement works for installation of Truenat and organize a kick-off meeting for Truenat implementation in Bangladesh. IDDS will also facilitate shipment of Truenat equipment and consumables to sites for installation. In addition, IDDS will organize Truenat training for the medical technologists, in collaboration with the NTP and NGO partners. IDDS developed an implementation plan for Xpert/Mycobacterium TB (MTB)/extensively drug-resistant (XDR) and shared it with headquarters for review. IDDS also started the procurement process for Xpert/MTB/XDR equipment and cartridges. In FY 2022 Q3, IDDS will facilitate installation of Xpert/MTB/XDR instruments in the selected pilot sites.</p>
NTW-4.1: Pilot Truenat, a new diagnostic tool, to improve access for rapid detection of TB and rifampicin-resistant TB	In progress	
NTW-4.2: Pilot of Xpert/MTB/XDR to assess its operation and efficiency for detection of 1 st and 2 nd line resistance	In progress	

Burma TB		
Activity	Status	Activity implementation updates
BMA-TB-NTW-1: Strengthen the TB diagnostic network framework and systems	In progress	With Core TB funding, IDDS conducted a spatial analysis to identify 12 potential GeneXpert (GX) expansion sites where new GX machines should be installed for better diagnostic network and coverage accessibility. In January 2022, the results were discussed with the National TB Program (NTP) and were preliminarily discussed with the United States Agency for International Development (USAID). The submission of the report on spatial analysis was postponed because it will include new private sector GX sites. In early March, IDDS and the Myanmar Private Hospital Association (MPHA) identified five priority private for-profit hospitals to include in the analysis. In FY 2022 Q3, IDDS will share and discuss the results with other funding agencies and selected TB implementation partners to produce a diagnosis network spatial analysis report, with meaningful recommendations for priority diagnostic network expansion.
NTW-1.2: Conduct a comprehensive TB diagnostic network assessment (DNA) and spatial analysis on the distribution and functionality of TB diagnostic	In progress	IDDS received feedback from the National TB Reference Laboratory (NTRL) on the implementation of the laboratory information management system (LIMS) costed plan. The human resource shortage at the NTRL and the Biosafety Level 3 (BSL-3) laboratory made it a significant challenge to complete LIMS integration during FY22 Q2.
NTW-1.3: Introduce a simplified laboratory information management system (LIMS) to strengthen the electronic results reporting	In progress	In FY 2022 Q3, IDDS will meet with the NTRL to discuss the feasibility and timeline of LIMS integration at the NTRL or the BSL-3 laboratory. IDDS will also recruit a diagnosis connectivity consultant to ensure close technical coordination and on-site technical assistance at the NTRL or the BSL-3 laboratory.
BMA-TB-NTW-2: Increase access to quality TB diagnostic services	In progress	Due to staffing shortages at the NTP, the revised drug-resistant TB management guidelines with the updated drug-resistant TB diagnosis algorithm were not endorsed, and dissemination workshops were not held. Despite efforts through IDDS's coordination consultant, IDDS did not have the opportunity to develop an implementation plan for the new diagnosis algorithm because the NTP has been dealing with other priorities and could not develop the implementation plan.
NTW-2.1: Support implementation of updated TB diagnostic algorithms	In progress	In FY 2022 Q3 and Q4, IDDS will seek opportunities to organize a guidelines dissemination workshop in the Yangon region.
NTW-2.2: Strengthen the TB specimen referral and transport	In progress	The IDDS information technology consultant completed the software architecture for the web-based TB specimen referral system (SRS) mobile application. The blueprint of the

Burma TB		
Activity	Status	Activity implementation updates
system in the private and the public sector		application was shared with the World Health Organization (WHO) to ensure its interoperability with other applications. In addition to collaborating with implementing partners, IDDS is approaching private for-profit sector delivery services to enhance the utilization and sustainability of this innovative SRS initiative.
NTW-2.3: Increase access to quality CXR	In progress	The SRS platform is expected to be launched in FY 2022 Q3 after selecting pilot areas and finalizing implementation strategies.
NTW-2.4: Strengthen the access to GX as an initial diagnostic test for TB	In progress	IDDS prepared the specifications of ultraportable X-ray machines and computer-aided diagnosis and initiated the procurement process. The deployment and workflow of those technologies are being discussed with WHO and implementing partners. In FY 2022 Q3, IDDS will deliver these technologies to implementing partners in prioritized areas.
NTW-2.6: Pilot use of stool specimens for TB diagnosis in children using GX Ultra	In progress	On January 19, IDDS organized a follow-up meeting on the GX advanced training with WHO, USAID, and international non-governmental organizations (INGOs) that had received IDDS's GX advanced training in FY 2021. The partners presented performance indicators of INGO GX sites were presented.
NTW-2.7: Pilot Truenat to expand access to rapid TB diagnostics	In progress	In FY 2022 Q3, IDDS will submit the final report as a technical deliverable. As per recommendations made by the participants on training needs and quality assurance practices, IDDS proposed that WHO and the Global Health Supply Chain Program-Procurement and Supply Management form a Joint Diagnosis Support Group, which will serve as a body to provide standardized technical assistance and mentor the performance of private sector GX sites. There is no urgent need for a GX refresher training, so it has been postponed. IDDS will execute its role in the Joint Diagnosis Support Group by providing the necessary technical assistance for GX diagnosis.
NTW-2.8: Increase continuous medical education opportunities for TB diagnostic professionals	In progress	On March 4, IDDS met with MPHA to discuss deploying GX machines, setting up a sputum referral system, and establishing a subsidized cost scheme for GX testing in private hospitals. IDDS prepared a list of five potential private hospitals according to their experiences in TB control and the suggestions made by MPHA. In FY 2022 Q3, IDDS will hold final discussions for deployment of the five procured GX machines; the equipment and cartridges are expected to arrive in June 2022. IDDS reviewed the progress of the pilot use of stool specimen for TB diagnosis in children using GX Ultra, which had been paused since the political crisis occurred in early 2021. IDDS

Burma TB		
Activity	Status	Activity implementation updates
		<p>contacted the principal investigator at the NTP to resume the process and received the commitments from the NTP and study sites to continue the research.</p> <p>In FY 2022 Q3, IDDS will check the validity of the ethical clearance approvals prior to resuming the study.</p> <p>IDDS developed quotations for Truenat machines and initiated the procurement process. IDDS is collaborating with USAID's Agency, Information, and Services project on the deployment and workflow of Truenat technology integration because the majority of the Truenat machines will be operated by IDDS and Agency, Information, and Services projects in-country. IDDS will advocate with the NTP and partner organizations to set up and validate this new tool.</p> <p>On January 20, IDDS conducted a consultative meeting with WHO to discuss the learning strategies, technical contents, and proposed design of the e-Learning platform. As per WHO's suggestions, IDDS advocated that the Myanmar Anti-Tuberculosis Association be the owner of the national learning platform as an interim solution until the NTP has the capacity to manage the platform.</p> <p>In FY 2022 Q3, IDDS will consult with TB implementing partners in-country to evaluate whether the e-Learning platform will be impactful when it is finalized and implemented.</p>
BMA-TB-NTW-3: Improve TB and MDR-TB case detection at TB diagnostic facilities	In progress	<p>IDDS met with the NTRL to discuss updating the standard operating procedures on the preparation of first- and second-line drug stock solutions. Progress on this is delayed due to the limited human resource capacity at the NTRL.</p> <p>IDDS developed the scope of work for a data entry clerk as short-term technical assistance to assist the NTP in data entry of Xpert Mycobacterium TB (MTB)/extensively drug-resistant (XDR) testing. In FY 2022 Q3, IDDS will recruit the data entry clerk and collect the testing data for analysis of Xpert MTB/XDR cartridge pilot.</p> <p>IDDS prepared assessment tools (minimal checklist for external assessment visit) for TB laboratory biosafety measures for each tiered level, adapted to the local context. The technical review process is complete. Because technical resources for biosafety in TB laboratories will come in a package, IDDS will need to wait until the other components and video clips are reviewed and approved before the tools can be launched. IDDS will submit the final version as a technical deliverable during FY 2022 Q3.</p>
NTW-3.1: Build diagnostic capacity of technical staff to perform quality-assured culture, genotypic and phenotypic drug-susceptibility testing (DST), including line probe assay (LPA)	In progress	

Burma TB		
Activity	Status	Activity implementation updates
NTW-3.2: Strengthen TB laboratory infection control at national and sub-national levels in public and private sectors	In progress	<p>IDDS prepared training materials, including videos, for the TB laboratory biosafety and biosecurity training. The virtual training was held March 21 and 22. This was a national-level training, and participants included 42 laboratory supervisors, technicians, and medical doctors from INGOs (29 female). The trainers were laboratory advisors and diagnosis specialists from IDDS. The following topics were covered:</p> <ul style="list-style-type: none"> • Introduction to biosafety and biosecurity in TB diagnostic facilities • TB and COVID-19: biosafety measures • TB infectious risk assessment and classification of TB diagnostic facilities • Essential biosafety measures for TB laboratories • Containment to ensure a safe working environment and emergency preparedness and response • Personal protective equipment and clothing • Core biosafety competencies and training of staff, annual reassessments, and health monitoring • Laboratory facility infrastructure and layout design based on risk-level assessment • Specimen collection, package, transport, and safe handling • Procedures to minimize TB infectious aerosol generation in the workplace • Management of laboratory waste and infectious spills • Routine safety assessment process to improve biosafety

Cambodia TB		
Activity	Status	Activity implementation updates
KHM-TB-NTW-1: Implementation of diagnostic connectivity solution in COMMIT and Global Fund-supported sites	In progress	IDDS worked with Savics, the National Center for Tuberculosis and Leprosy Control (CENAT), and Community Mobilization Initiatives to End Tuberculosis (COMMIT) to conduct DataToCare (DTC) training and installation in 10 COMMIT-supported operational districts (ODs).
NTW-1.1: Support the establishment of connected GX instruments in COMMIT project ODs and scale-up diagnostic connectivity to the GX instruments in selected Global Fund-supported ODs	In progress	IDDS coordinated and organized the remote training for super-users, which was conducted by Savics on February 3. A total of 18 participants (1 female) from CENAT, COMMIT, the United States Agency for International Development, and IDDS completed the training. All super-users are competent to install DTC and train end-users with minimal remote support from Savics.
NTW-1.2: Build the capacity of CENAT and local OD staff to implement and manage the connectivity solution, analyze data, and recommend corrective actions	In progress	Super-users, including IDDS staff, then conducted hands-on training with remote support from Savics from February 7 to 11 at 10 laboratories (Sensok, Pochentong, Saang, Leuk Dek, Lvea Em, Rokakorng, Kang Meas, Stung Trang, O Raing Ov, and Tbong Khmum referral hospitals). A total of 64 participants (9 female) completed the training. The participants included TB supervisors, laboratory supervisors, laboratory technicians, and managers from provincial health departments (Kandal, Kampong Cham, Tbong Khum), municipal health departments (Phnom Penh), ODs (Sen Sok, Posenchey, Saang, Leuk Dek, Lvea Em, Muk Kampoul, Kang Meas, Stung Trang, O Raing Ov, and Tbong Khum), and referral hospitals (Sensok RH, Pochentong RH, Saang RH, Leuk Dek RH, Lvea Em RH, Rokakorng RH, Kang Meas RH, Stung Trang RH, O Raing Ov RH, and Tbong Khmum RH).
NTW-1.3: Expand data connectivity to Truenat instruments and TB-MIS	In progress	DTC installation at 10 laboratories was completed during the end-user training; the software is functioning well and producing real-time reports on the DTC dashboard. IDDS liaised between the sites and Savics to follow up about the implementation and troubleshoot as needed. In FY 2022 Q3, IDDS will finalize the contracting process with a local company to roll out DTC SMS notification that will be sent to patients and prescribers. In collaboration with Savics, IDDS scheduled the DTC training for data

Cambodia TB		
Activity	Status	Activity implementation updates
		<p>managers for early April 2022 in Kampong Cham province. Savics will provide the training remotely.</p> <p>In FY 2022 Q3, IDDS will provide technical support to operationalize DTC, such as onsite and remote supervision and mentorship for the 10 COMMIT OD pilot sites. IDDS will also develop and disseminate the final report of the pilot in the 10 COMMIT ODs. In addition, IDDS will negotiate with CENAT to scale up data connectivity to 20 Global Fund-supported sites. Finally, IDDS will work with CENAT and COMMIT to expand the connectivity to the TB Management Information System in the 10 COMMIT-supported ODs and Truenat instruments.</p>
KHM-TB-NTW-2: Pilot Truenat and I0 color GX to expand access to rapid TB and DR-TB diagnostics	In progress	IDDS received approval from the National Ethics Committee for Health Research for the Truenat pilot protocol. IDDS also worked with the Stop TB Partnership, Molbio, CENAT, and stakeholders to supply Truenat instruments to the country; these arrived in January 2022.
NTW-2.1: Pilot Truenat in selected sites and assess the feasibility of testing for TB and rifampicin resistance at peripheral point-of-care health centers	In progress	In coordination with CENAT and the mission, IDDS organized the Truenat handover ceremony, which was held on February 14 and attended by 32 participants from the mission, CENAT, non-governmental organization partners, and provincial health departments.
NTW-2.2: CENAT and OD staff capable of conducting Truenat testing and pilot completed	In progress	IDDS organized a Truenat centralized workshop from February 15 to 17, to raise awareness about Truenat instruments and provide training to super-users and decision-makers. A total of 36 participants (3 female) from provincial health departments, ODs, CENAT, COMMIT, and IDDS participated in the in-person workshop at the Phnom Pros hotel in Kampong Cham province. The trainees were provincial TB supervisors,
NTW-2.3: Introduce GX with I0 color system	In progress	

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Activity	Status	Activity implementation updates
NTW-2.4: Perform a spatial analysis of the rapid molecular diagnostic (RMD) network to inform the placement of new TB WHO Recommended Diagnostics (WRD) for future expansion of molecular diagnostics	In progress	<p>provincial TB laboratory supervisors, OD TB supervisors, and the manager and staff from the National Tuberculosis Reference Laboratory (NTRL).</p> <p>IDDS conducted on-site installation and hands-on training for Truenat at all 15 selected pilot implementation sites (NTRL, Krang Yov, Ta Lon, Sandar, Prek Chrey, Prek Anchanh, Prek Dambouk, Reay Pay, Mesor Chrey, Damrel, Preah Theat, Sandan, Sambo, Banteay Srey, and Srey Snam health centers) from February 21 to March 4. A total of 77 people (9 female) from provincial health departments (Kandal, Kampong Cham, Tbong Khum, Kampong Thom, and Siem Reap provinces), ODs (Saang, Leuk Dek, Lvea Em, Muk Kampoul, Srey Santhor, Kang Meas, Stung Trang, O Raing Ov, Kampong Thom, Siem Reap, and Kralanh), CENAT/NTRL, COMMIT, and IDDS participated in the training. The trainees were provincial TB supervisors, provincial TB laboratory supervisors, OD TB supervisors, the NTRL manager and staff, and health center staff.</p> <p>IDDS collaborated with CENAT, COMMIT, and stakeholders to organize Truenat pilot implementation, operational research training, and refresher training for end-users, which will take place in late April 2022. In FY 2022 Q3, IDDS will continue to provide technical assistance to CENAT, COMMIT, and OD staff to implement the Truenat pilot, monitor the pilot implementation, assess the competency of CENAT, COMMIT, and local TB program staff to perform Truenat tests and provide mentorship, and collect and analyze data to evaluate the impact of the Truenat pilot on TB case finding.</p> <p>In coordination with CENAT, IDDS developed the site selection criteria for the GeneXpert (GX) 10-color system and selected three GX 10-color system sites. In FY 2022 Q3, IDDS will procure GX 10-color instruments and cartridges and support the activity implementation in the three selected sites.</p>
KHM-TB-NTW-3: Improve the CXR reading and Telegram platform for interpretation of CXR	In progress	IDDS finalized the terms of reference for the chest X-ray (CXR) Telegram platform and submitted it to the CENAT director for approval on March 14. IDDS also finalized the CXR Telegram platform assessment report with recommendations on March 24. IDDS is

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Activity	Status	Activity implementation updates
NTW-3.1: Improve a platform (Telegram) for interpretation of CXR	In progress	<p>currently developing an action plan to outline improvements to be made for the CXR Telegram platform. IDDS is also developing the CXR consultant scope of work to lead the proposed activities in FY 2022. In FY 2022 Q3, IDDS will develop standardized reporting formats for experts to advise on CXR and assist in the decision-making on CXR reading and interpretation, as well as develop training materials and job aids for the CXR Telegram platform.</p> <p>IDDS has not started activities under NTW-3.2, 3.3, and 3.4, because the priority for FY 2022 Q2 was to complete installation and training for DTC and Truenat. In FY 2022 Q3, IDDS will procure suitable artificial intelligence software based on experience in other IDDS countries and develop a detailed implementation plan for an artificial intelligence feasibility study.</p>
NTW-3.2: Develop and disseminate training materials for the use of the platform for CXR interpretation	Not started	
NTW-3.3: Develop an online training module and provide training on the correct reading and interpretation of CXR	Not started	
NTW-3.4: Test the feasibility of artificial intelligence (AI)-enabled CXR reading for TB screening at the peripheral sites and for EQA of CXR in selected ODs	Not started	
KHM-TB-NTW-4: Provide technical support to improve bi-directional screening for TB-Diabetes Mellitus (DM) comorbidity	In progress	<p>IDDS is finalizing the TB-diabetes mellitus (DM) situational analysis report. After the report is finalized, IDDS will organize a workshop to disseminate the report and present it to the TB-DM technical working group and the CENAT director for approval. In FY 2022 Q3, IDDS will collect additional data to develop a manuscript using the TB-DM report and publish results. IDDS will also prepare documents to obtain approval for the manuscript from the local and headquarters institutional review boards, as needed.</p>
NTW-4.1: Review COMMIT's approach to bi-directional TB-DM screening and develop recommendations to enhance and expand; disseminate the TB-DM situational analysis report	In progress	

Cambodia TB		
Activity	Status	Activity implementation updates
KHM-TB-NTW-5: Implementation of stool GX testing for improving pediatric TB diagnosis in COMMIT supported ODs	Not started	IDDS is developing a consultant scope of work to lead the proposed activities in FY 2022. In FY 2022 Q3, IDDS will hold consultative meetings with the National TB Program, the NTRL, and other TB stakeholders to discuss the proposed implementation. IDDS will also organize meetings with the technical working group to review the generic implementation protocol for the pilot stool specimen testing by GX, data collection instruments, and procedures, including the selection of sites and laboratories for the pilot implementation. In addition, IDDS will obtain any necessary ethical and regulatory approvals to conduct the pilot implementation. Finally, IDDS will procure GX Ultra cartridges and stool collection and preparation materials.
NTW-5.1: Implement stool specimen testing with GX ultra for pediatric TB diagnosis	Not started	

DRC TB		
Activity	Status	Activity implementation updates
DRC-TB-NTW-1: Upgrade DRC National TB Reference Laboratory	In progress	IDDS and the National TB Program (NTP) finalized and posted the scope of work to recruit three consultants (two international and one national), who will support the development of the National Reference Laboratory Strategic Plan.
NTW-1.1: Support the development of the National TB Reference Laboratory Strategic Plan 2021-2025	In progress	IDDS is working with the National TB Reference Laboratory (NTRL) to put in place a functional TB Diagnostic Network working group and drafted the terms of reference (TOR) for the working group. In FY 2022 Q3, the TOR will be submitted to the NTP director for approval.
DRC-TB-NTW-2: Improve Service Delivery in Three TB Reference Laboratories	In progress	To improve human resource capacity at the NTRL, IDDS and NTRL staff reviewed the NTRL training plan and determined that IDDS would reinforce training on biosafety and waste management.
NTW-2.1: Reinforce diagnostic service capacities in Kinshasa TB laboratory	In progress	IDDS started planning for the biosafety training, drafted the TOR, selected the training modules from the training materials previously developed by IDDS, and identified trainers from the Centers for Disease Control and Prevention and the <i>Institut National de Recherche Biomédicale</i> . All NTRL key staff will be trained in FY 2022 Q3.
NTW-2.2: Reinforce Diagnostic Service Capacities in Lubumbashi TB Laboratory	In progress	IDDS and the NTRL are working on training logistics for two NTRL staff in equipment maintenance (one each from NTRL P2 and P3 units). The trainees have been identified, and efforts are underway to identify the trainers. The training is planned for FY 2022 Q3. IDDS and the NTP developed and posted (on Media Congo) a scope of work to hire an engineer to assess the power distribution at the NTRL.
NTW-2.3: Reinforce Diagnostic Service Capacities in Kisangani TB Laboratory	In progress	IDDS and the NTRL finalized the list of necessary personal protective equipment and materials, including the trash bins and other needed waste management supplies for the NTRL. IDDS provided 1,500 Falcon Tubes to the NTRL during the stockout period in March 2022. IDDS had a working session with the <i>Laboratoire Supranational de Référence de la Tuberculose C</i> facilitator on March 15 to assess the introduction and implementation of a Laboratory Management Information System (LMIS) in Kinshasa. The introduction and implementation of an eLMIS started last year with technical support from the <i>Laboratoire Supranational de Référence de la Tuberculose</i> Cotonou, but the NTRL still requires system-

DRC TB		
Activity	Status	Activity implementation updates
		compatible computers, a barcode reader, a printer, and resolution of Internet issues to complete the LMIS activity. IDDS and the NTP finalized the TOR for the consultant recruitment, and two consultants were identified for the comprehensive assessment of the Lubumbashi and Kisangani laboratories. The assessment will take place in FY 2022 Q3.

India TB		
Activity	Status	Activity implementation updates
IND-TB-NTW-1: Institutional strengthening of public sector network of TB laboratories to improve the quality and efficiencies of the TB diagnostics care cascade in NTEP	In progress	IDDS coordinated with the National Reference Laboratory (NRL)-National Tuberculosis Institute Bangalore to complete the piloting of the guiding supervisory checklist and monitoring and evaluation package at the Intermediate Reference Laboratory (IRL) Bangalore and linked districts (Tumkur and Kosar) from January 10 to 13. With this, the piloting of the supervisory checklists and monitoring and evaluation package was completed at two NRLs and two linked IRLs identified in consultation with the Central TB Division (CTD).
NTW-1.1: Update and upgrade the existing supervision, monitoring and evaluation (SME) framework into an integrated and comprehensive framework	In progress	IDDS developed the concept note and draft agenda to support the CTD with management training sessions, including quality management system and data analysis and management workshops for NRLs and IRLs. In addition, IDDS held an in-person meeting with the chief executive officer of the National Accreditation Board for Testing and Calibration Laboratories (NABL) on February 4, to explore the feasibility of conducting a technical assessors training session for the NRL microbiologists and help build their technical and managerial capacity in quality management systems in collaboration with NABL. Subsequently, a briefing meeting was conducted on February 5 with Dr. Nishant Kumar, Nodal Officer for the National Tuberculosis Elimination Program (NTEP) Laboratory Network at the CTD unit, to receive insights and discuss the next steps.
NTW-1.2: Reinforce management capacity of all NRLs and 12 IRLs to lead the laboratory diagnostic network in assigned institutions and geographies and strengthen NRLs and IRLs for supportive supervision, monitoring, mentoring, and troubleshooting	In progress	To improve coordination between various laboratory tiers in the NTEP, IDDS provided technical and managerial support to the NRL-National Institute of Tuberculosis and Respiratory Diseases (NITRD). In preparation for the review meeting of linked IRLs and TB culture and drug susceptibility testing laboratories, IDDS assisted in developing the presentation template, agenda, and list of participants. The meeting was originally planned for January 6, but it was postponed due to a rise in COVID-19 cases in the country.
NTW-1.3: Develop a forecasting tool to assist NRLs, IRLs and TB C&DST laboratories to estimate the requirement of laboratory consumables	Not started	IDDS conducted pilot testing of the grading tool at two selected NRLs (NRL-NITRD and NRL-Japanese Leprosy Mission for Asia Agra), and one linked IRL with each (IRL-New Delhi TB Centre and IRL Agra). Piloting was conducted at the IRL-New Delhi Tuberculosis Centre Delhi on February 21 and 22, at the IRL Agra and Japanese Leprosy Mission for Asia Agra from March 2 to 4, and at the NRL-NITRD Delhi on March 7 and 8. Pilot results were discussed with the CTD laboratory team on March 10. After the completion of the piloting, IDDS visited the NRL-National

India TB		
Activity	Status	Activity implementation updates
		<p>Institute for Research in Tuberculosis (NIRT) Chennai on March 21 and 22, to collect key information related to the ranking of NRLs based on the nine strategic thematic areas covered in the scoring and ranking tool. The visits for the ranking of the rest of the three NRLs (NRL-Regional Medical Research Center Bhubaneswar, NRL-Bhopal Memorial Hospital and Research Centre Bhopal, and NRL-National Tuberculosis Institute Bangalore) were originally planned for March 27 to April 1 but were postponed due to non-availability of the CTD laboratory representative because of engagement in other immediate program priorities. The visits have been rescheduled for FY22 Q3.</p> <p>IDDS has initiated the background work, including desk review of the existing literature and biosafety guidelines, to support the CTD in developing the National TB Laboratory Biosafety Manual.</p> <p>IDDS visited the identified districts in the union territory of Ladakh, and state of Himachal Pradesh, along with the CTD representatives, as part of the National Facilitation Team to support the Sub-National Certification of progress towards TB Free Status from February 23 to 28.</p> <p>In FY22 Q3, IDDS will work with the CTD to formally introduce the surveillance, monitoring, and evaluation package for use by NRLs and IRLs, complete the NRL and IRL grading, and submit the first draft version of the National TB Laboratory Biosafety Manual to the CTD for review and feedback.</p>
IND-TB-NTW-2: Private sector laboratory engagement for the TB/DR-TB diagnostic care cascade	In progress	<p>IDDS formed a Technical and Financial Committee to complete the evaluation of bids received from interested private laboratories for implementation of the “One Stop TB/Drug-resistant TB (DR-TB) Diagnostic Solution” model in Hisar district. The committee included key stakeholders and ICF Delhi and headquarters representatives. The potential private laboratory for implementation of the model has been identified based on the committee’s recommendation. IDDS headquarters solicited all necessary approvals and received authorization to proceed with the letter that was issued to the identified laboratory on March 24. To implement the model, IDDS is collaborating with IQVIA through the USAID-supported iDEFEAT TB project awarded to The Union. IDDS, along with IQVIA, visited Hisar district on March 14 and 15 to brief the</p>
NTW-2.1: Initiate demonstration of "One-stop TB diagnostic solution" model for private sector laboratory engagement for TB/DR-TB diagnostic care cascade in collaboration with CTD	In progress	

India TB		
Activity	Status	Activity implementation updates
NTW-2.2: Review of “One-stop TB diagnostic solution” model for private sector laboratory engagement for TB/DR-TB diagnostic care cascade	Not started	new district TB officer on the model and deliberate on the operational plan for its implementation in collaboration with district and state NTEP officials. IDDS interviewed 15 potential candidates out of 34 applications received for the site coordinator position to support the model implementation. The final round of interviews was conducted on January 18, and the contract was issued to the selected candidate on March 25.
NTW-2.3: Explore other possible options for engagement of private sector laboratories for TB diagnostic care cascade	In progress	IDDS initiated the mapping of potential private laboratories to facilitate NTEP certification in line probe assay and liquid culture drug susceptibility testing. IDDS shared an e-mail along with a Google form with NABL and the Initiative for Promoting Affordable and Quality TB Tests laboratories to capture their information as part of the mapping exercise. IDDS received responses from 60 laboratories and shortlisted 18 laboratories as having the potential for NTEP certification. IDDS contacted the 18 laboratories that confirmed providing line probe assay and liquid culture drug susceptibility testing diagnostic services. IDDS conducted joint visits to private laboratories: SRL Ranbaxy Gurgaon, along with NRL-NITRD, Haryana State representatives, and the state World Health Organization (WHO) consultant on January 21; as well as TB laboratory, Max Hospital, Saket, Delhi on March 16, along with NRL-NITRD to assess their diagnostic tests availability, spare capacity, and other components for providing diagnostic services to TB/DR-TB patients following certification by the NTEP. In FY 2022 Q3, IDDS will begin implementing the model and continue visiting the responsive private laboratories along with respective NRLs to share the assessment report with potential recommendations to the CTD to consider for NTEP consideration.
IND-TB-NTW-3: Support the Central TB Division and USAID in design and conduct of research on new TB and DR-TB diagnostics	In progress	Under the Truenat study to assess reasons for high invalid and indeterminate rates of Truenat results at diagnostic facilities in the NTEP, IDDS, in collaboration with NIRT-Chennai, collected information for key parameters by visiting all selected 12 sites (2 sites visited in previous quarter) for conducting the root cause analysis of high invalid and indeterminates. The 10 Truenat sites visited were as follows: District Hospital, Hindoun City, Karauli and Community Health Center, Parbatsar, Nagaur in Rajasthan on January 3 and 4; Community Health Center Kandhla, Shamli in Uttar Pradesh on January 7; District Hospital Sehore and District Hospital Ujjain in Madhya Pradesh from February 8 to 10; District Headquarters Hospital, Rajanna Siricilla, and
NTW-3.1: Comprehensive assessment of Truenat invalid and indeterminate results for Mycobacterium tuberculosis and Rifampicin resistance	In progress	

India TB		
Activity	Status	Activity implementation updates
testing at NTEP's sites and possible solutions to address the same		Government General Chest Hospital, Erragadda, Hyderabad in Telangana on February 15 and 16; Bidar Institute of Medical Sciences in Karnataka on February 17; CHC Bhimilli, Visakhapatnam in Andhra Pradesh on February 22; and IRL Naharlagun, Papum Pare in Arunachal Pradesh on February 24. IDDS prepared the interim report on the findings and observations and will be deliberating with the CTD laboratory unit to decide the next steps in FY 2022 Q3.
NTW-3.2: Feasibility of using Trueprep extracted DNA for line probe assay testing in NTEP	In progress	NRL-NIRT Chennai secured the Ethical Committee's approval for the Trueprep Diagnostic Network Assessment feasibility study on February 15 and subsequently applied to secure approval from the Health Ministry's Screening Committee. IDDS initiated the procurement process for the purchase of proprietary and non-proprietary items budgeted for the study.
NTW-3.3: Situational analysis, desk review and deliberation with CTD to assess the potential of new technologies, tools and approaches and research questions to be evaluated in NTEP	In progress	IDDS conducted a desk review of potential novel diagnostic tools, including TB-LAMP assay, for discussions planned with the CTD laboratory unit to identify a potential diagnostic technology for field evaluation and feasibility in programmatic settings. In FY22 Q3, IDDS will collect prospective one quarter data from identified Truenat sites in the NTEP for the Truenat invalid study and support initiation and completion of phase I of the Trueprep Diagnostic Network Assessment feasibility study. In addition, in consultation with the CTD laboratory team, IDDS will develop a study proposal on the potential technology identified with mutual consensus and support, securing necessary approvals along with a partner institution.
NTW-3.4: Support, mentor and monitor relevant USAID-funded programs and partners for development and evaluation of new diagnostic tools	Not started	
IND-TB-NTW-4: Support NCDC and identified laboratory(ies)/ laboratory networks for AMR containment and surveillance	In progress	IDDS, along with the mission, held a series of meetings with the nodal officer of antimicrobial resistance (AMR) at the National Centre for Disease Control (NCDC) on January 31, and with the WHO country office on February 7, and deliberated on the action plan and next steps for the planned AMR activities (new National Action Plan [NAP]-AMR and State Action Plan-Containment of Antimicrobial Resistance).
NTW-4.1: Technical and managerial support for development of new NAP-AMR with the leadership of NCDC	In progress	The meetings also included a session chaired by the director of the NCDC on February 22. IDDS then conducted a joint follow-up meeting on February 24 to deliberate on the preparations and planning for the sectoral and intersectoral meetings for developing the new NAP-AMR.

India TB		
Activity	Status	Activity implementation updates
NTW-4.2: Support developing the State Action Plan on Containment of Antimicrobial Resistance (SAP-CAR) for the identified state(s) aligned to NAP-AMR	Not started	<p>Based on the discussions, IDDS developed the draft concept note, agenda, and list of participants for the planned stakeholder consultations, and shared these with NCDC and WHO for inputs and concurrence on March 7. IDDS updated the draft documents based on inputs received on March 18.</p> <p>IDDS participated and contributed to the first sectoral meeting and national stakeholders workshop on the NAP-AMR (2022–2026) (livestock sector) on March 23 and 24. The meetings were conducted by the Food and Agriculture Organization of the United Nations in collaboration with USAID in Delhi. IDDS recorded the proceedings of the meeting for further deliberation with the NCDC.</p>
NTW-4.3: Develop and demonstrate a model of district level AMR surveillance in the identified district(s) of Punjab	Not started	<p>In FY 2022 Q3, IDDS will complete all planned sectoral meetings and start organizing intersectoral meetings based on the six strategic priorities outlined in the NAP-AMR (2017–2022) as part of the process of developing the next NAP-AMR.</p>

MENA DNA		
Activity	Status	Activity implementation updates
MENA-NTW-1: Development of DNA assessment tool that incorporates key components of the IDDS TB-DNA, ASLM Survey on Laboratory Capacity and other assessment tools	In progress	<p>IDDS assembled a working group (WG) of laboratory capacity and diagnostic network subject matter experts (SMEs) to conduct a critical review of existing laboratory and network capacity assessment tools. By leveraging the relevant sections of these existing tools, the WG aimed to develop a tool that can be used by Middle Eastern and North African (MENA) countries to assess laboratory capacity and preparedness for emerging disease threats. WG members included SMEs from the IDDS consortium. An external team of SMEs completed the review of the draft MENA assessment tool, and the revised draft was provided to the United States Agency for International Development (USAID) in Washington for critical review and feedback.</p> <p>The WG developed a draft MENA Diagnostic Network Assessment (DNA), including 13 core capacities, using key questions from a variety of international assessment tools, including those from the African Society for Laboratory Medicine, the World Health Organization, the American Society for Microbiology, the Centers for Disease Control and Prevention, the Food and Agriculture Organization, and Public Health-Canada.</p> <p>After final review and approvals are received from USAID, the next steps in FY 2022 Q3 include translating the MENA assessment tool into Arabic and French, followed by inputting it into an electronic format (e.g., Airtable).</p> <p>After the draft DNA tool is approved, IDDS will plan a pilot DNA assessment in one of the MENA countries chosen in collaboration with USAID in FY 2022 Q4. Lessons learned and best practices will be incorporated into the final MENA DNA tool.</p> <p>In coordination with USAID, IDDS will perform a DNA with the finalized tool in a country selected by USAID.</p> <p>At the conclusion of the IDDS program, IDDS will transfer the MENA DNA tool, assessor manual, and all training materials to USAID.</p>
NTW-1.1: Critical review of relevant international assessment tools	Completed	
NTW-1.2: Assemble DNA tool working group to develop framework for new DNA tool	In progress	
MENA-NTW-2: Finalize the IDDS MENA DNA tool	Not started	
NTW-2.1: Pilot assessment to validate the IDDS developed MENA DNA tool in one selected MENA country	Not started	
MENA-NTW-3: Perform MENA DNA assessment using finalized tool in selected USAID priority countries	Not started	
NTW-3.1: Conduct MENA DNA assessments in selected countries	Not started	

MENA DNA		
Activity	Status	Activity implementation updates
NTW-3.2: Provide detailed MENA assessment report	Not started	

Tanzania TB		
Activity	Status	Activity implementation updates
TZA-TB-NTW-1: Reinforce Tanzania TB Diagnostic Network	In progress	<p>IDDS supported procurement of 2 rounds of GeneXpert external quality assessment (EQA) panels for 220 sites in August 2021. The first round of EQA was completed in Q1. In March 2022, the National Tuberculosis and Leprosy Program (NTLP) received the second round of EQA panels for 220 GeneXpert sites across the country. At the end of Q2, the panels were with the testing sites; the panels will be completed and sent to the Uganda Supranational Reference Laboratory for analysis in early FY 2022 Q3. In the remainder of Q3 and Q4, IDDS will conduct supportive supervision at poor-performing sites, carrying out root cause analysis and developing and implementing corrective action plans for the poor performance.</p> <p>IDDS completed procurement of accessories, such as a 1.7 TB hard drive and power supply, for the GxAlert server that IDDS had procured previously. IDDS will work with NTLP/Ministry of Health to install the server at the National Data Center in FY 2022 Q3. IDDS anticipates that the server will enhance connectivity and real-time reporting of TB results. It will also aid the NTLP in monitoring utilization of GeneXpert instruments and inventory of GeneXpert commodities such as cartridges.</p> <p>In FY 2022 Q3, with Core TB funding, IDDS will also map the placement of the new technologies, review the guidelines and diagnostic algorithms to accommodate the newly technologies, and support training and capacity building of in-country users of the new technologies.</p>
Milestone-NTW-1.1: Strengthen the capacity and quality of testing in four zonal TB laboratories	In progress	
Milestone-NTW-1.2: Strengthen Xpert panel/EQA testing	In progress	
Milestone-NTW-1.3: Provide GxAlert/Aspect connectivity	In progress	
Milestone-NTW-1.4: Support introduction of new TB diagnostic technologies	In progress	
TZA-TB-NTW-2: Complete TB-DNA Activity and Support Implementation of Some Identified Gaps	In progress	<p>IDDS submitted the TB Diagnostic Network Assessment final report to the United States Agency for International Development in Washington in January 2022 as a key deliverable under the Core TB portfolio. The project is working with the NTLP to organize a high-level report dissemination workshop in FY 2022 Q3.</p> <p>Through Core TB funding, IDDS has been cleaning and analyzing data on the spatial distribution of GeneXpert machines across the TB diagnostic network. When available, the findings will be shared with the NTLP as a supplement to the TB Diagnostic Network Assessment report.</p>

Vietnam TB		
Activity	Status	Activity implementation updates
VNM-TB-NTW-1: Optimize the diagnostic network to address issues of access, timeliness, and diagnostic accuracy	In progress	IDDS organized a series of meetings with the National TB Program (NTP) and SystemOne—the IT service provider for the digitized specimen referral network pilot—to discuss the implementation plan for the pilot. An electronic tool (QR code) and software system for specimen tracking will be integrated with the specimen referral system. IDDS facilitated the process of having SystemOne and the NTP sign the memorandum of understanding (MoU) for the specimen referral network pilot. SystemOne signed the MoU.
NTW-1.1 Strengthen and digital transformation of specimen referral network	In progress	
NTW-1.2 Support the expansion of molecular testing systems	In progress	In FY 2022 Q3, after the NTP countersigns the MoU, IDDS will organize the technical meeting for implementing the pilot, and SystemOne will finalize the software module and conduct the training of trainers before starting the implementation at the sites.
NTW-1.3 Strengthen the DST testing laboratory system to enhance diagnosis and treatment of drug-resistant TB (DR-TB), MDR-TB, and XDR-TB	In progress	IDDS is working in coordination with the NTP to prepare for the training on new GeneXpert (GX) systems, including 10-color GX machines. IDDS will organize the training after the NTP completes the distribution of GX machines.
NTW-1.4: Provide continuous technical assistance for laboratory quality improvement	In progress	NTW-1.3 will begin after NTP organizes the quality control and external quality assurance (EQA) activities for drug susceptibility testing laboratories. IDDS will provide technical assistance to the National Reference Laboratory (NRL) in the development of drug susceptibility testing training modules and the production of locally adapted quality control training and communication materials and job aids.
NTW-1.5 Support the artificial intelligence-enabled chest X-ray to strengthen the Double X strategy	In progress	IDDS is working with the NRL to prepare for technical assistance sessions in Thai Binh, Nghe An, Nam Dinh, Tay Ninh, Dong Thap, Tien Giang, An Giang, Can Tho, Kien Giang, and Khanh Hoa provinces. NTW-1.4 will begin after completion of GX and Truenat activities. IDDS conducted the artificial intelligence (AI)-enabled chest X-ray training in Khanh Hoa province from January 17 to 20, with 25 participants (11 female) from the NTP and the mission, as well as three sites in the province. Participants from the province included radiologists and clinical doctors. The implementation of AI-enabled chest X-ray in Khanh Hoa began after the training. In FY 2022 Q3, IDDS will continue to work with Qure.AI,

Vietnam TB		
Activity	Status	Activity implementation updates
		the manufacturer of AI software, to resolve bugs, troubleshoot connectivity issues, and monitor operational data.
VNM-TB-NTW-2 Improve pediatric stool testing using GX	In progress	Due to the COVID-19 pandemic, many district and provincial hospitals were closed for TB diagnostic services in Q2. Local TB facility staff were also mobilized for the COVID-19 pandemic response, and very few stool specimens were received at the GX laboratories for testing. IDDS is in contact with the NRL and the NTP to determine when this activity can be resumed.
NTW-2.1 Provide technical assistance to GX facilities on stool GX testing to enhance the pediatric TB diagnosis	In progress	
VNM-TB-NTW-3 Deploy innovative tools and equipment for Vietnam TB diagnostics	In progress	IDDS developed a draft report on trace result analysis, which is undergoing internal review. In FY 2022 Q3, IDDS will finalize and share the report with the NTP, the mission, and other implementing partners. IDDS is developing a detailed implementation plan for whole genome sequencing application in TB. In FY 2022 Q3, IDDS will participate in the whole genome sequencing technical working group (TWG), which was initially scheduled in Q2 but canceled by NTP, to prepare for the operational research study.
NTW-3.1 Conduct an evaluation of trace results in application of GX Ultra testing	In progress	
NTW-3.2: Support the implementation of whole genome sequencing for DR-TB detection	In progress	
VNM-TB-NTW-4: Technical assistance for new TB tools	In progress	IDDS collaborated with the NTP, the NRL, and the mission to organize the handover ceremony for Truenat, ultra-portable X-ray (UP-XR), and other commodities that were donated through Core TB funding to the NTP on February 16. IDDS discussed with the NTP the implementation plan for the Truenat feasibility testing. It was determined that IDDS (with Core TB funds) will financially support the deployment of EQA panels and technically support the data reporting from the implementation sites. The next step is for the NTP to share the requirements to import the EQA panels. With Core TB funding, IDDS organized the national-level training for UP-XR from February 16 to 18, as well as 2 regional trainings for 10 implementation provinces in Hai Duong province from March 2 to 4, and in Can Tho province from March 9 to 11. The training in Hai Duong province was attended by provincial NTP staff from Hai Phong, Hai
NTW-4.1: Molbio Truenat— Assess the feasibility of testing for TB and rifampicin resistance at peripheral point-of-care health centers and active case finding sites	In progress	
NTW-4.2: Computer-aided detection with Ultra-portable X-ray— Assess the feasibility	In progress	

Vietnam TB		
Activity	Status	Activity implementation updates
of ultra-portable X-ray with AI in TB active case finding		Duong, Nghe An, Thai Binh, and Nam Dinh. The training in Can Tho province was attended by provincial NTP staff from Can Tho, Dong Thap, An Giang, and Tien Giang. In total, 64 participants (9 female), including radiologists, information technology technicians, clinicians, and program management staff, completed the training. Chat groups on messaging applications, such as WhatsApp and Zalo, were established to ensure that participants can receive technical assistance from Delft, the manufacturer of UP-XR, and local partners. In FY 2022 Q3, IDDS will continue to work closely with the sites for the implementation of UP-XR.
NTW-4.3: Diagnostic connectivity Solutions developed by SystemOne (GxAlert Aspect) or SAVICS (DataToCare)—Expand a diagnostic connectivity solution to improve functioning of diagnostic equipment and to ensure timely service and maintenance is provided by manufacturers	Not started	NTW-4.3 will begin after the NTP and StopTB Partnership announce the final decision on the selected diagnostic connectivity vendor.

Zimbabwe TB		
Activity	Status	Activity implementation updates
ZWE-TB-NTW-1: Strengthen a comprehensive TB diagnostic network with strong underlying health systems	In progress	<p>IDDS provided technical and financial support for the development of a Quality Improvement Framework document for Harare Province. The document outlines areas to be improved to ensure provision of quality TB diagnostic services. As a follow-up to the development of the framework, IDDS provided financial and technical support to a team of TB laboratory supervisors who conducted baseline assessments in 25 TB laboratories in Harare Province. These included the Ministry of Health and Child Care, City of Harare, private for-profit, and private not-for-profit laboratories. In FY 2022 Q3, IDDS will mentor these laboratories to address findings from the baseline assessment. IDDS provided technical and financial support for the development of the Zimbabwe National TB Testing Standard Operating Procedures manual. The manual is undergoing final review by the National TB Program and is expected to be submitted for review at IDDS headquarters in FY 2022 Q3.</p> <p>The solar systems site assessment, which was supported by IDDS financially, was concluded by ThulaSiso, and the findings were shared with IDDS. The IDDS procurement team is reviewing the findings and recommendations. In FY 2022 Q3, IDDS will procure the solar systems equipment and begin installation.</p>
NTW-1.1: Increase TB case detection through comprehensive strategies in collaboration with local organizations network in Harare Province	In progress	
NTW-1.2: Strengthen functionality of the GeneXpert network	In progress	
NTW-1.3: Expand and decentralize TB diagnostic network	In progress	
NTW-1.4: Strengthen quality in the TB diagnostic network	In progress	
NTW-1.5: Reinforce the TB diagnostic network within the private sector	In progress	
NTW-1.6: Expand supportive supervision and analysis of quality TB data to improve program performance	In progress	
NTW-1.7: Implement the DXO strategy to strengthen the GeneXpert network	In progress	
ZWE-TB-NTW-2: Support the NTRL and NTP to develop and operationalize functional national	In progress	IDDS provided financial and technical support for a TB Diagnostic Network technical working group meeting attended by a total of 15 (6 female) national and provincial TB experts. The meeting was held in Kadoma on January 26 and included discussions on

Zimbabwe TB		
Activity	Status	Activity implementation updates
and provincial TB reference laboratory structures		improving the TB laboratories support and supervision system, improving quality in the GeneXpert network, strengthening connectivity on the GxAlert platform, and improving quality testing at the National TB Reference Laboratories (NTRLs).
NTW-2.1: Strengthen the NTRLs to serve as the leading laboratories in the TB diagnostic network	In progress	IDDS provided financial support for the repair of two air conditioning units and procurement of a new air conditioner at the Harare NTRL. These units will regulate the testing environment in the line probe assay laboratory and ensure optimum conditions for the operation of the temperature-sensitive equipment in this laboratory.
NTW-2.2: Support the NTP's leadership activities and TWGs sessions	In progress	IDDS provided financial support for the relocation of the Mycobacteria Growth Indicator Tube machines from the main Bulawayo NTRL to the modular laboratory. In FY 2022 Q3, IDDS will continue to provide technical and financial support to maintain functionality of the modular laboratory, as renovations of the main laboratory are expected to begin in Q4.
ZWE-TB-NTW-3: Conduct OR to generate evidence on TB diagnostic strategies in Zimbabwe context	In progress	The <i>GeneXpert MTB/RIF Ultra "Trace Call" Results in Zimbabwe</i> protocol, which IDDS developed and finalized in FY 2021, was approved by the Medical Research Council of Zimbabwe (MRCZ). The study is conducted at the Beatrice Road Infectious Disease Hospital in Harare, Epworth Hospital in Harare, Thorngroove Hospital in Bulawayo, Kadoma General Hospital, and Gweru Provincial Hospital.
NTW-3.1: Conduct OR on clinically diagnosed TB patients using CXR and other TB clinical signs	In progress	IDDS provided financial support for the training of 16 health care workers (2 female) from the sites selected to participate in the study on research ethics by the MRCZ. The training took place March 22 and 23 in Kwekwe. Participants included health care workers working at these study sites who will be responsible for recruiting study participants and collecting data. The data collection process will start FY 2022 Q3.
NTW 3.2: Conduct OR on GeneXpert MTB/RIF Ultra "trace call" results in Zimbabwe	In progress	The <i>Clinically Diagnosed TB Patients Using Chest X-ray (CXR) and Other TB Clinical Signs</i> protocol that IDDS developed in FY 2021 was approved for ethical clearance by the ICF Institutional Review Board, and IDDS submitted the protocol to the MRCZ for ethical clearance. The protocol is expected to be approved in FY 2022 Q3. The <i>Smear Microscopy Hub Strategy</i> study protocol developed by IDDS in Q1 was approved for ethical clearance by the ICF Institutional Review Board. The protocol is expected to be submitted to the MRCZ in FY 2022 Q3.