TB DIAH

Tuberculosis Data, Impact Assessment and Communications Hub

Final Report

November 2024

USAID
FROM THE AMERICAN PEOPLE

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Abbreviations

AFIAT	Assistance for Families and Indigent Afghans to Thrive
AI	artificial intelligence
APPR	Automated Partners' Performance Reporting
ARC	Assessment of Data Collection, Reporting, and Analysis Capacity
CA	Central Asia
CCTBR	Cambodia's Committee for TB Research
CENAT	National Center for Tuberculosis and Leprosy Control
CHISU	Country Health Information Systems and Data Use
CI	contract investigation
C&M	coaching and mentoring
COE	Center of Excellence
COMMIT	Community Mobilization Initiatives to End Tuberculosis
D2AC	Data-to-Action Continuum
DDPSSES	Department of Disease Prevention and State Sanitary and Epidemiological Surveillance
DHIS2	District Health Information Software, version 2
DQA	Data Quality Assessment
DQR	data quality review
DRC	Democratic Republic of the Congo
DR-TB	drug-resistant TB
DSD&IC	Kyrgyz Republic Department of Strategic Development and International Cooperation
DS-TB	drug-susceptible TB
EEE	Eastern Europe and Eurasia
EMR	electronic medical record
ETL	extract, transform, and load
FAQ	frequently asked questions
GHS	Global Health Security
HIS	health information system
ICC	Interagency Coordination Committee
IHVN	Institute of Human Virology of Nigeria
IP	implementing partner

IR	Intermediate Result
LEAP	Long-Term Exceptional Assistance Project
LGTBLS	Local Government Area Tuberculosis and Leprosy Supervisors
LON	Local Organizations Network
LTBI	latent TB infection
M&E	monitoring and evaluation
MEL	monitoring, evaluation, and learning
MELVIN	Monitoring, Evaluation, Learning, Vision, and Information
MESSA	M&E and Surveillance Systems Assessment
MCH	maternal and child health
MIS	management information system
MOH	Ministry of Health
NCDC	National Centre for Disease Control and Public Health
NCTDC	National Center for Tuberculosis and Disease Control
NCTLD	National Center for Tuberculosis and Lung Disease
NCPh	National Center of Phthisiology
NETIMS	National Electronic Tuberculosis Information Management System
NSP	National Strategic Plan
NTBLCP	National Tuberculosis and Leprosy Control Programme
NTP	National Tuberculosis Program
OD	operational district
OR	operational research
PBMEF	Performance-Based Monitoring and Evaluation Framework
PLHIV	people living with HIV
PNLT	Programme National de Lutte contre la Tuberculose
POSAF	Pont Santé Afrique
QPRM	quarterly program review meeting
QTSA	Quality of Tuberculosis Services Assessment
SIG	Special Interest Group
RSSPMCPP	Republican Specialized Scientific-Practical Medical Center of Phthisiology and Pulmonology
SSV	supportive supervisory

STAR	Sustaining Technical and Analytical Resources
STBLCP	State Tuberculosis and Leprosy Control Programme
STEP	Surveillance and TB M&E Strengthening Plan
TA	technical assistance
TB	tuberculosis
TBCI	Tuberculosis Contact Investigation
TB DIAH	Tuberculosis Data, Impact Assessment and Communications Hub
TBL	tuberculosis and leprosy
e-TB MIS	**(**electronic) TB Management Information System
TBSR	TB Situation Room
ToT	training of trainers
TWG	technical working group
UHI	Urban Health Initiative
UNC	University of North Carolina at Chapel Hill
UNDP	United Nations Development Programme
UNGA	United Nations General Assembly
UNHLM	United Nations High-Level Meeting
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

Background

Despite being curable, tuberculosis (TB) remains a leading cause of death from infectious disease worldwide. Although the TB incidence rate has declined by 8.3% and the global death rate from TB declined by 23% compared to those rates in 2015, those results are far short of WHO's End TB Strategy target of a 50% and 75% reduction, respectively, between 2015 and 2025.[1] In the face of these challenges, collecting, analyzing, reporting, and using data to inform decisions in countries with high TB burdens are more important than ever.

From 2018–2025, the TB Data, Impact Assessment and Communications Hub (TB DIAH) project worked to address these TB data needs. TB DIAH was the first agreement funded by USAID's Global Accelerator to End TB, the agency's programmatic approach to fight TB. The accelerator increases commitment from and build the capacity of governments, civil society and the private sector to accelerate national progress to reach global TB targets. TB DIAH's goal was to establish a framework to measure that progress.

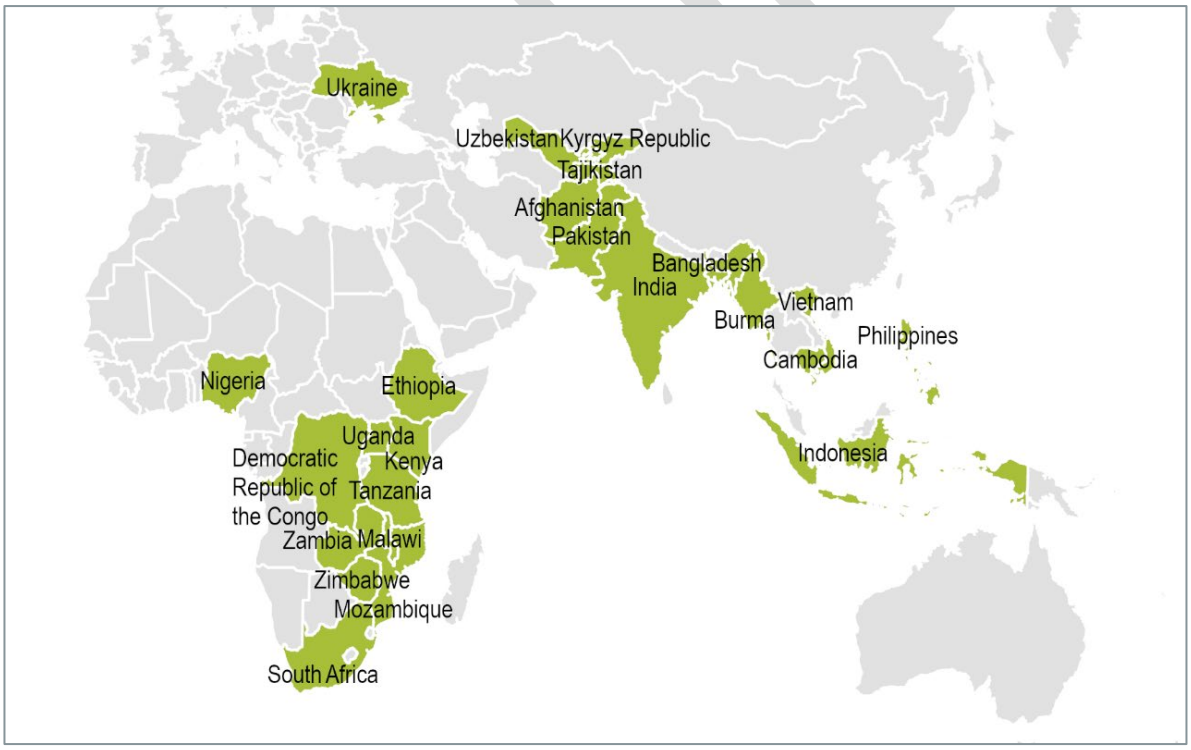


Figure 1: Map of USAID's TB priority countries

Over its implementation period, TB DIAH worked with USAID and its partners in 24 high-priority countries to improve and harness existing TB data and knowledge sharing and to strengthen National TB Programs (NTPs) in support of the U.S. Government's goals of reaching every person with the

[1] 2024 WHO Global Tuberculosis Report https://iris.who.int/bitstream/handle/10665/379339/9789240101531-eng.pdf?sequence=1

disease, curing those in need of treatment, and preventing the spread of new infections and the progression to active TB disease.

TB DIAH's Intermediate Results (IRs)

TB DIAH experts applied their technical expertise to support countries across every point in the TB monitoring and evaluation (M&E) and surveillance process. TB DIAH's strategy and activities were designed to achieve three IRs:

1 **IR 1**
Strengthened collection, analysis, and use of routine health and TB data

2 **IR 2**
Improved design and implementation of M&E frameworks and information gathering processes, including tools, methodologies, and technical guidance to meet users' needs

3 **IR 3**
Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps

TB DIAH's Response

TB DIAH's response fell into two broad categories: developing tools and resources to assess and strengthen TB data collection and use, and technical support provided by the project team to colleagues in the field working to apply them or otherwise address challenges in their TB response. Details about TB DIAH's response can be found in Appendices 1 and 2.

Tools and Resources

PBMEF

Performance-Based M&E Framework (PBMEF)

- Contains several categories of standardized indicators to measure essential TB program outputs and outcomes, help Missions track progress against TB targets, and manage USAID's TB investment.

SERVE

TB System for Entry, Reporting, Visualization, and Exploration (SERVE)

- A prototype built to address USAID's TB Division's current and future data management and reporting needs, improve user experience and data storage, and reduce the complexity and costs of its current processes and systems.

TBDIAH.org

TBDIAH.org – TB Data Hub and Knowledge Hub

- A one-stop shop website offering public and secure work areas to support USAID TB program managers, technical advisors, and country stakeholders with data analysis and reporting, as well as access to tools, resources, and guidance to contextualize and apply data to their programming.


ARC

Assessment of Data Collection, Reporting and Analysis Capacity (ARC)

- Measures a country's capacity to collect, report, and analyze PBMEF indicators.


MESSA

M&E and Surveillance Systems Assessment (MESSA)

- An overview of M&E and surveillance systems in each USAID TB priority country.


STEP

Surveillance System Strengthening Plan (STEP)

- Systematic and multi-faceted assessment of a country's TB M&E and surveillance system to identify strengths and gaps across the system, examine the quality of the data, and develop the implementation of a costed action plan.


QTSA

Quality of TB Services Assessment (QTSA)

- Provides periodic data to inform NTPs, USAID Missions, and other stakeholders of the current state of quality of TB care and what strategic investments and actions may be needed to improve TB services.


D2AC

TB Data-to-Action Continuum (D2AC)

- Measures the progress of countries as they work toward improving their use of TB data for programmatic decision making.

Technical Support


e-Learning

e-Learning – training.tbdiah.org

- Online courses in TB contact investigation, finding TB cases among those living with HIV, and TB monitoring & evaluation.


Trainings

Trainings and Workshops

- Support and expertise to colleagues in 23 countries through the design, facilitation, conduct and reporting of trainings and workshops


Assessments

Assessments Support

- Support to 29 countries using TB DIAH assessment tools including data capture, analysis, and reporting.


SIG

TB Data Special Interest Group (SIG)

- Working group of 80+ technical experts and policy makers from USAID/Washington, USAID Missions and select partners from 23 countries to inform the development of USAID's TB M&E framework, indicators, and tools.


COEs

Centers of Excellence (COE)

- Established a virtual COE in TB M&E and Surveillance to provide leadership, support capacity building, and promote best practices in TB data collection, reporting, visualization, analysis, and use


NTP Websites

NTPs Websites

- Work with priority countries' NTPs to adapt their websites and increase their transparency scores using the Stop TB Partnership's Governance of TB Programs criteria.

Key Achievements

IR 1: Strengthened Collection, Analysis, and Use of Routine Health and TB Data

Select project achievements that support the strengthened collection, analysis, and use of routine health and TB data (IR1) include:

- ✓ Completed ARC assessments for 25 countries. Findings were used in various ways by USAID Missions. Examples include the development of annual work plans and informing NSP M&E goals and strategies. ARC results were also used to inform STEP analysis concept notes to strengthen surveillance systems in select countries.
- ✓ Operational research trainings and tools were developed in Cambodia and DRC to strengthen national capacity to address identified gaps in routine health data
- ✓ Completed development of a prototype of TB SERVE, a comprehensive data solution built to address USAID's current and future data management and reporting needs, improve user experience and data storage, and reduce the complexity and costs of its current processes and systems.
- ✓ A virtual COE strengthened the technical capacity of the COE hosts in Georgia and strengthened the TB M&E capacity in Eastern Europe and Eurasia (EEE). Georgia's COE serves as a model for best practices in TB M&E and surveillance in 10 EEE and Central Asia (CA) countries.
- ✓ 27 M&E and Surveillance Systems Assessment (MESSA) reports completed, and five countries (Cambodia, Kyrgyz Republic [KR], Moldova, Pakistan and Uzbekistan) used findings to inform/complete their M&E plans
- ✓ Developed the TB Data Hub, one half of the TBDIAH.org website and an online portal offering visualizations of publicly available WHO data as well as a secure, password-protected work area for USAID TB priority country stakeholders to enter, analyze, and review their own TB data.
- ✓ In 2021, USAID's Cure TB project, with technical assistance from TB DIAH, adapted the QTSA to gather project baseline data in Kyrgyz Republic which provided comprehensive nationally representative data on quality of TB care. As the Cure TB project was involved in the National Program Tuberculosis VI development, they used some preliminary QTSA results to help set NTP priorities and inform relevant sections and the implementation plan of the national TB strategy.
- ✓ In Nigeria, TB DIAH:
    - Streamlined Automated Partners' Performance Reporting **(**APPR), moving from an Excel-based system to DHIS2 and improving data quality and consistency using core PBMEF indicators. Biweekly meetings provided the opportunity for data review; and
    - Established TB-specific Situation Rooms at the national level and in four states and Lagos allowing for regular review meetings with all TB stakeholders present.

IR 2: Improved Design and Implementation of M&E Frameworks and Information Gathering Processes, Including Tools, Methodologies, and Technical Guidance to Meet Users' Needs

To improve the design and implementation of M&E frameworks and information gathering processes, including tools, methodologies, and technical guidance to meet users' needs (IR2), TB DIAH:

- ✓ Led development of the Performance-Based M&E Framework, a set standardized indicators for USAID/Washington and its partners to track the Agency's TB investments. 21 of 24 USAID TB priority countries included PBMEF core indicators in their national M&E plans.
- ✓ Created 10 TB M&E training curricula to introduce and improve routine health data analysis, increasing the demand and use of data in larger policy discussions and NSPs. Adapted eight of these curricula into non-English languages. Held a total of 61 trainings for 23 countries.
- ✓ Created e-Learning courses in TB M&E, TB Contact Investigation for Frontline Workers, TB Contact Investigation for Program Managers, and Finding TB Cases among People Living with HIV
- ✓ Developed a Monitoring, Evaluation and Learning (MEL) Plan Template and an associated guidance document to systematize the development of a project MEL plan for USAID IPs receiving TB funding, enabling IPs to guide their activities and USAID to better manage projects and track USAID's TB investments.

IR 3: Strengthened Reporting and Communication, as well as Methods, Tools, and Approaches Improved and Applied to Address Communication Gaps

Finally, TB DIAH strengthened reporting and communication, and improved and applied methods, tools, and approaches to address communication gaps in TB data (IR3) by:

- ✓ Establishing the TB Data Special Interest Group (SIG), a group of over 80 technical experts and program managers from USAID/Washington and Missions who meet monthly to discuss and inform USAID TB M&E initiatives
- ✓ Rebuilding Nigeria's National TB and Leprosy Control Program (NTBLCP')'s website as part of the project's support to NTPs to strengthen their program transparency scores, as measured by the Stop TB Partnership's 2021 Governance Assessment.
- ✓ Creating MELVIN, the first conversational artificial intelligence chatbot aimed at expanding M&E knowledge and enhancing learning experiences in TB. MELVIN is free, open access and has fielded thousands of TB M&E inquiries in multiple languages.

Key Learnings

Four key learning themes emerged over the course of the project:

1. **Invest in high-quality data**. Investing in high-quality data collection/generation and reporting practices related to TB program areas that currently lack strong evidence-based data-driven practices, such as contact investigation (CI), community-based screening, and private sector notifications allows for national and subnational M&E and surveillance systems to generate a comprehensive set of essential TB data on a sustainable basis.

2. **Strengthen capacity in data practices.** Systematically strengthening capacity in TB data analysis, interpretation, and visualization practices that drive knowledge, decisions, and actions among country actors through the development of skills, tools, incentives, and structures promotes greater frequency and competency in data analytics and facilitates the practice of data use.

3. **Increase demand for and use of data.** Increasing the demand for and use of high-quality TB data through frameworks, tools, guidelines, user-friendly data, and learning platforms strengthens the capacity and approach of a data-driven TB program and stimulates a culture within organizations, teams, and individuals to appreciate the role that data plays in a sustainable NTP and surveillance system.

4. **Generate collective responsibility for TB programs.** Generating and fostering a spirit of collective responsibility and ownership among all stakeholders through continued collaboration and shared interest in and mutual accountability underpins investments and the capacity to collect, manage, and use TB data.

Assessment of the TB DIAH Approach

To achieve the project's three IRs, the project developed a framework for action with the overall goal to improve TB M&E and surveillance systems at all levels of the health structure to collect, manage, and use data to inform policies, people-centered care, and performance management of TB programs in USAID's 24 TB priority countries. The framework for action aimed to affect change along four pathways: (1) TB data collection and reporting; (2) TB data analysis, interpretation, and visualization practices; (3) demand for and use of TB data; and (4) country ownership of TB M&E and surveillance systems. Figure 2 depicts how these elements interact to achieve the goal of improved TB M&E and surveillance systems. Partnerships and capacity strengthening provide the context through which the work is accomplished.

From the start of the project, TB DIAH's approach was to collaborate and co-create with USAID/Washington TB Division, USAID Missions, NTPs, and IPs to identify TB M&E and surveillance needs, design and implement key interventions, and produce desired deliverables and outcomes as articulated in annual work plans.

Figure 2: TB DIAH Framework for Action

The project had seven seasoned core programming advisors acting as activity leads, who assembled their teams and led technical communications with their USAID counterparts. Mission-funded activities had resident advisors and small teams when appropriate (e.g., Nigeria and the Kyrgyz Republic). The management goal was always to create clear internal communication channels and foster harmony and teamwork within and across the teams. Weekly team meetings were an opportunity for communication between the technical, financial, and operations teams to address specific issues that had arisen, problem solve and develop strategies to resolve issues. Biannual in-person meetings were held with the USAID/Washington team and focused on specific themes or work planning. Mission-funded activities came to the project through the usual channels (e.g., emails, AOR, etc.). Work plans were developed with the technical leads and the HQ person leading activities in that country. HQ and country-based teams met weekly and met with USAID Missions monthly or bimonthly to monitor and track progress.

Together, the team established six primary workstreams:

1. The PBMEF with standard indicators and reporting system.
2. A TB Data Hub and TB SERVE prototype to house the data collected for the PBMEF and that has the capacity to adapt and grow as reporting needs for the M&E and surveillance systems change.

3. Assessment tools (MESSA, ARC, STEP, QTSA, D2AC) related to data capture for the various indicators and the capacity/quality of the M&E and surveillance system in each country.
4. Strategic communications, including a web-based knowledge hub for priority country and global resources, fostering networking and exchange among TB stakeholders, and strengthening capacity to communicate TB data to different audiences and media channels.
5. Country engagement focused on TA, capacity strengthening, support to Missions and NTPs, and the establishment of COE in TB M&E.
6. Capacity strengthening, focused on developing and maintaining e-Learning modules for TBCI for frontline workers, an e-Learning course for TBCI lead trainers, an e-Learning course on Finding Missing TB Cases among PLHIV for healthcare workers and program managers, and the adaptation of the TB M&E curriculum developed for in-person training in the field-supported countries into an interactive online course for TB M&E professionals.

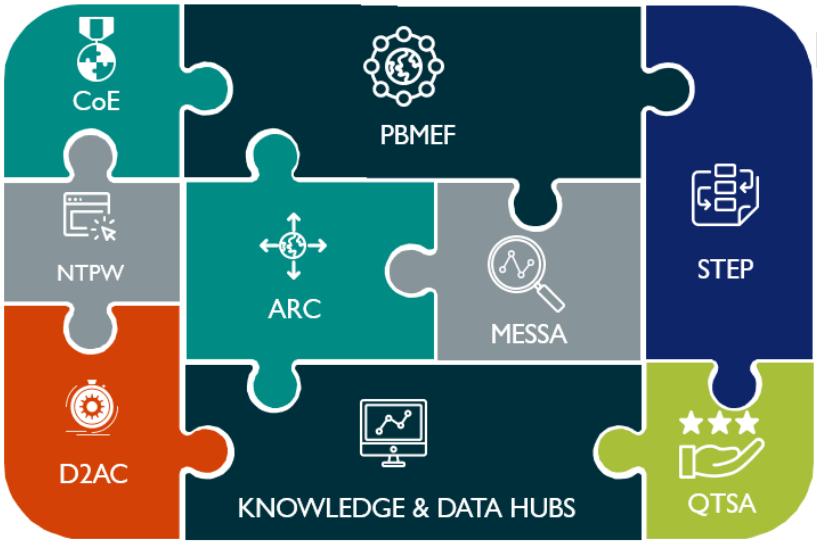


Figure 3: Together, TB DIAH's interconnected work streams provide a holistic view of a country's TB monitoring, evaluation and surveillance

Promising Practices: What Worked?

IR 1: Strengthened Collection, Analysis, and Use of Routine Health and TB Data

- The initial investment of time and resources in the gap and situational analyses conducted at the start of the country buy-ins were essential to their ultimate success.
- Creating active platforms for TB data and program performance reviews, such as TBSRs, improved data quality and overall data management, including motivating stakeholders to improve.
- Fostering norms around alignment and standardization in measurement and data use practices for improved data quality and program performance.
- Comprehensive policy guidelines and SOPs were essential for efficient and effective TB data collection, analysis, use, data quality, data sharing, data governance, and data platforms to strengthen TB M&E and surveillance systems.

- Deep dive data analysis increased data demand and quality enabled IPs and Missions to understand actions' context, and helped to identify the best strategies for addressing gaps.
- Mentoring, training, and TA based on programmatic needs and gaps that allowed for real-time learning and data use increased data quality and data-based decision making in Cambodia, the DRC, the Kyrgyz Republic, and Nigeria.

IR 2: Improved Design and Implementation of M&E Frameworks and Information Gathering Processes, Including Tools, Methodologies, and Technical Guidance to Meet Users' Needs

- User-focused system design led to an improved understanding of the capacity, skill, and user experience of TB staff and other stakeholders to collect, interpret, and visualize TB data.
- Improving infrastructure and staff access to tools that are needed for effective TB data analysis, interpretation, and visualization improved data sharing and use and facilitated evidence-based decision making.
- Creating cascades and providing TA on how to conduct a cascade analysis provided stakeholders with a granular view of data context and program performance.
- Creating a PBMEF technical advisory group, like the SIG, was an effective way to get USAID input on the PBMEF from a variety of voices.
- It is important to keep up the momentum and ensure users utilize platforms like SIG to share their feedback and learnings and for continuous improvement and application.

IR 3: Strengthened Reporting and Communication, as well as Methods, Tools, and Approaches Improved and Applied to Address Communication Gaps

- Creating a culture of data use through products such as quarterly TB bulletins, annual reports, and success stories improved opportunities to share TB data and learning.
- Promoting transparency in the communication and use of TB data created national ownership among stakeholders.
- Developing guidelines and supporting the establishment of TBSRs that enable real-time data review, analysis, interpretation, and programmatic decision making. This is in response to the growing global health community's use of information and communication technology to better data collection, analysis, visualization, and decision making in TB.

Cross-Cutting Result Area 1: Increased Individual and Organizational Capacity

- Improved networking and capacity building were achieved through increased collaboration and partnership with universities, TB LON partners, and USAID IPs.
- Improved TB M&E training, curricula, on-the-job learning opportunities, mentorship, and supportive supervision led to improvements in individual capacities and behavior change. This was marked by improvements in capacity among TB staff and other stakeholders at the national, district, and facility level to analyze, interpret, and visualize TB data that is appropriate to their level of the health system.

- Strengthening the capacity of local research organizations, local consultants, and NTPs in survey design and implementation stimulated the use of assessment findings and recommendations.

Cross-Cutting Result Area 2: Strengthened Partnerships and Collaboration Between the NTP and TB Stakeholders

- Promoting public and private sector commitment to the NTP and M&E and surveillance functions, as well as continuity and autonomy in the management and use of TB data, ensured locally led program performance.
- Working consultatively and intentionally with government counterparts within MOHs, universities, and other related sectors and partners ensured ownership and sustainability.
- Engaging with a broad coalition of partners (i.e., public and private, national and subnational) helped to achieve broader acceptability and engagement in TB M&E and surveillance strengthening activities.
- Activities such as mapping programs by location and level, framing program strategies and outcomes, and technical or policy forums created greater awareness among all entities of investment in TB elimination and opened opportunities for collaboration.
- Employing different strategies to engage NTPs and subnational levels in planning and implementing assessments (e.g., QTSA, ARC, MESSA, STEP, etc.) both ensured access to and cooperation of facilities and staff during data collection and use of results after the assessments were completed.

Lessons Learned: What Didn't Work?

- The project conducted several global TB DIAH assessments, but didn't have the time or funding to use the findings to develop and implement surveillance system strengthening and capacity building interventions.
- QTSA assessments should be followed by support for NTPs to develop an action plan that translates findings to action items and interventions designed to improve quality of care. However, this additional TA was not included in the activity work plans.
- Data collection from the private sector is not yet universal, and data for some indicators related to contact screening and TB preventative therapy as well as sustainability are not yet reported to the NTPs. Therefore, the TB data picture in many countries is incomplete.
- Establishing a credible, sustainable COE is resource intensive. Because it requires considerable investments in time, staffing, and funding, the project invested in one high-quality regional COE rather than three regional COEs.
- Some of TB DIAH's technical reports are long and dense. There is a need to produce shorter dissemination materials (e.g., topical briefs, presentations) that highlight key results and are appropriate for broader dissemination.

Questions for Future Exploration by USAID and Its Partners

- What are some additional tools and approaches to engage and encourage users to apply the PBMEF, such as creating an online database of PBMEF indicators so they can be more easily accessed, revised, and shared?
- How can sustainable data collection and reporting practices from the private sector to the NTP be improved, particularly around issues such as notification, screening, and TB preventive therapy?
- What methods can be used to track how countries use QTSA data or other survey findings after the assessments are completed?
- Can increases in incentives and motivation for analysis, interpretation, and visualization of TB data contribute to improvements in individual capacities and behavior change and an improved culture of skill transfer and knowledge sharing among co-workers?
- How can USAID and IPs support countries to implement the new normative guidance from the WHO on revised TB surveillance at strategic and operational levels?

APPENDICES

Appendix 1: TB DIAH Tools and Resources

Performance-Based Monitoring and Evaluation Framework (PBMEF)

IR 2: Improved design and implementation of M&E frameworks and information gathering processes.

The PBMEF is a key component of USAID' effort to ensure accountability for effective use of investments in TB programs at the global, regional, country, and project levels and accelerate progress to end the TB epidemic. The PBMEF was developed as a comprehensive tool by the TB DIAH project, in collaboration with USAID, to help USAID Missions, USAID IPs and advisors, national governments' health ministries, and National TB Programs (NTPs) track progress against TB in a country and improve the measurement of critical TB program results.

The PBMEF streamlines and prioritizes indicators for monitoring progress toward global TB milestones and targets in USAID's priority TB countries. It underpins USAID's Global TB Strategy 2023–2030 and is fully aligned with the World Health Organization (WHO) End TB Strategy 2015–2030, the Stop TB Partnership's Global Plan to End TB 2023–2030, and the commitments and targets set at the United Nations High-Level Meeting (UNHLM) in 2023 on ending TB.

In 2021, the PBMEF was introduced in the publication **Navigating Tuberculosis Indicators: A Guide for TB Programs**. Other resources were developed for the PBMEF rollout. These included the following:

- One-page PBMEF Frequently Asked Questions (FAQ) sheet (updated in 2024)
- Two-page PBMEF overview (in English, Russian, Portuguese, and French)
- Four-page PBMEF overview (in English, Russian, Portuguese and French)

Figure 4: PBMEF Resources

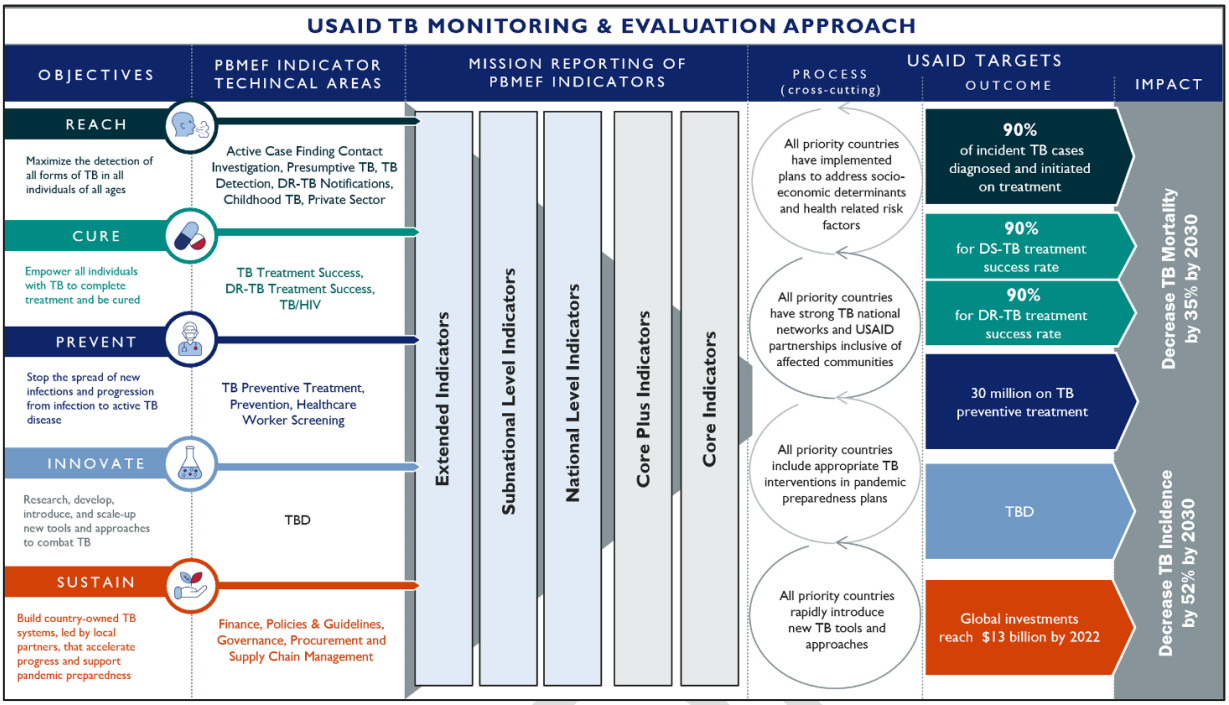


Figure 5: 2024 Updated PBMEF Framework

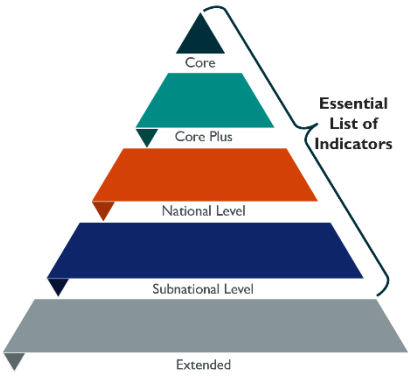


Figure 6: PBMEF Indicators Pyramid

In 2023, TB DIAH worked with USAID and its advisors and partners through the TB Data SIG to update the PBMEF, including the framework (featured below), indicators, and indicator reference sheets (IRS). These updates were based on the WHO's new guidelines on TB surveillance and updated terms and definitions for some TB indicators, the UNHLM on TB's new set of bold commitments and targets, and USAID's updated Global TB Strategy. The culmination of TB DIAH's PBMEF work is **Navigating the Performance-Based Monitoring and Evaluation Framework Indicators: A Guide for TB Programs (2024).** This comprehensive document explains the what the PBMEF indicators are and how to use them. It describes how to select, analyze, use, and report PBMEF indicators; contains full IRS for each of the 68 essential indicators and abbreviated IRS for the extended indicators; and depicts TB cascades and illustrative indicator maps.

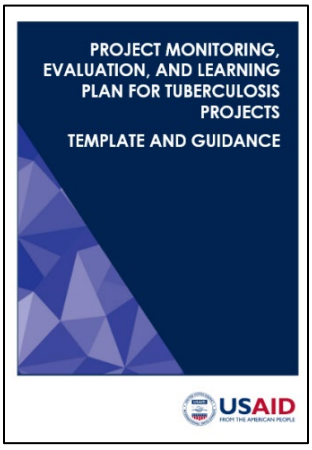


Figure 7: PBMEF Template and Guidance Document

To complement the PBMEF, TB DIAH developed the Monitoring, Evaluation, and Learning (MEL) Plan for TB Projects Template and Guidance. This user-friendly document assists USAID IPs receiving TB funding with developing a TB MEL plan in a standardized format and reporting on the PBMEF indicators. A one-page frequently asked questions (FAQs) sheet summarizes what the MEL Plan Template and Guidance contains.

Key Achievements

The PBMEF was the cornerstone of several other TB DIAH activities and deliverables.

- The PBMEF formed the basis for the ARC tool, which was implemented in all 24 USAID TB priority countries as well as three non-priority countries.
- Serves as the foundation of the TB M&E e-Learning course, "Using the PBMEF to Strengthen TB Programs."
- One of the objectives of the EEE and CA Regional Conferences on TB M&E in 2022 and 2023 and the 2024 Africa Regional Workshop on Strengthening TB M&E Systems was presenting the updated PBMEF and learning how the PBMEF and related tools, such as the MEL Plan for TB Projects Template and Guidance, can be used as a performance management resource. The PBMEF formed the basis for presentation, analysis and reflection and learning exchanges with the regional stakeholders and attendees left with a better understanding of applying the PBMEF for analysis, interpretation and evidence-based decision-making.

The PBMEF also supported TB M&E efforts beyond TB DIAH.

- In Uzbekistan, the Kyrgyz Republic, Haiti, and Cambodia, the NTPs incorporated PBMEF indicators into their national M&E plans or National Strategic Plans (NSP) and then used the data in their quarterly or annual reports.
- Uzbekistan incorporated PBMEF indicators in their Global Fund grant application.
- USAID/Washington is using the PBMEF indicators during their TB roadmap planning and reviews to assess progress and resource allocation in each USAID TB priority country as well as annual reporting for USAID's Performance Plan and Report (PPR).
- USAID's TB Local Organization Network (LON) projects in Nigeria decided to transition from Excel spreadsheets to District Health Information Software, version 2 (DHIS2) for data reporting based on the Automated Partners' Performance Reporting (APPR) TB data quality analyses using the PBMEF. This decision was informed by the inability of the TB LON IPs to capture key PBMEF indicators on the APPR, which highlighted the urgent need for improvement. The goal of this transition is to establish a TB LON IP-specific data reporting platform using DHIS2.
- In Nigeria, two TB LON IPs, KNCV and Institute of Human Virology of Nigeria (IHVN), used the PBMEF to identify relevant indicators to collect in measuring program performance.
- All the TB LONs in Nigeria use PBMEF indicators in bi-weekly performance reviews.
- IPs who receive USAID TB funding are mandated to incorporated the PBMEF indicators into their MEL plans and reports to all USAID Missions.

TB System for Entry, Reporting, Visualization, and Exploration (SERVE)

IR 1: Strengthened collection, analysis, and use of routine health and TB data.

USAID/Washington requested a comprehensive data solution designed to meet USAID's TB Division's evolving needs for gathering, reporting, and analyzing TB data. TB DIAH worked closely with USAID/ Washington to design TB SERVE as a prototype, built to address current and future data management and reporting needs, improve user experience and data storage, and reduce the complexity and costs of its current processes and systems.

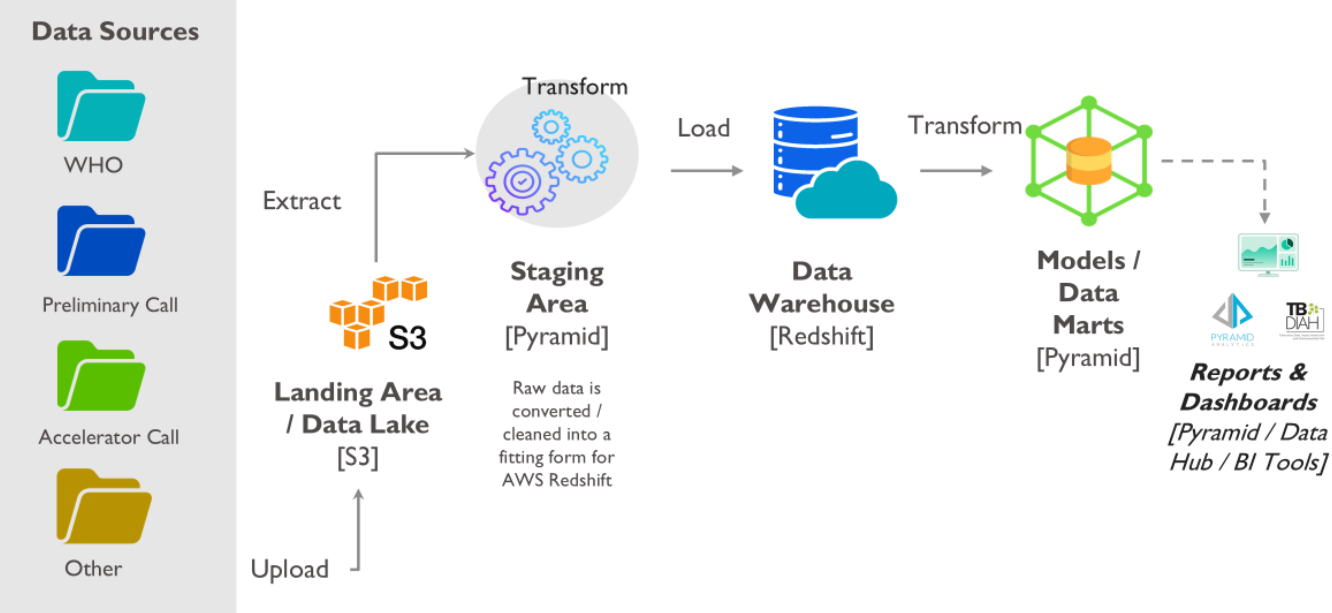


Figure 8: This process flow diagram depicts the flow of source data through the system and at what points the data is extracted, transformed, and loaded into the TB SERVE data warehouse. Once loaded, the data goes through another transform process to be incorporated into Pyramid Analytics and ready to be used.

TB SERVE uses Pyramid Analytics, Amazon Redshift, and Amazon S3 in a three-tiered architecture design to provide a comprehensive digital data warehouse solution, thus integrating data storage, management, transformation, and governance. The data warehouse is designed to be a database that contains historical, clean, and integrated data from multiple sources, including (but not limited to) USAID Missions, IPs, and the WHO. TB SERVE provides:

- Data collation: Data is gathered from multiple sources and stored in Amazon S3. Raw data can be in different formats, such as CSV or Excel files.
- Data processing: Raw data is cleaned, transformed, and prepared using Extract, Transform, and Load (ETL) processes.
- Data storage: Cleaned and structured data is stored in Amazon Redshift, ready for analysis.
- Analytics and reporting: When the prototype is fully developed, Pyramid Analytics will enable users to create interactive dashboards, reports, and visualizations for real-time data analysis and insights.

Users can also enhance their data analysis capabilities by connecting other business intelligence tools, such as Tableau, to the data warehouse (Amazon Redshift) and its specially curated data marts, facilitating more comprehensive data exploration and reporting.

Key Learnings

Developing and implementing an internal data warehouse and ETL process for USAID TB data needs from multiple sources requires collaboration from end users in each step of the process. For a successful product, the channels of communication need to be clear and frequent, with flexibility built in to adjust to more frequent meetings (i.e., daily sprints). The other key learning is to ensure documentation is completed at each step of the process to ensure decisions are recorded and the reasons for those decisions can be understood for future implementation.

Key Achievements

Key outputs included the prototype, which consists of the integration of Pyramid Analytics, Amazon Redshift, and Amazon S3 services, as well as a series of demonstrations meant to introduce the prototype, including its processes and capabilities, to decision makers at USAID Washington. The third key output is TB SERVE technical documentation, which serves as an implementation plan for scale up of TB SERVE for future use.

TBDIAH.org

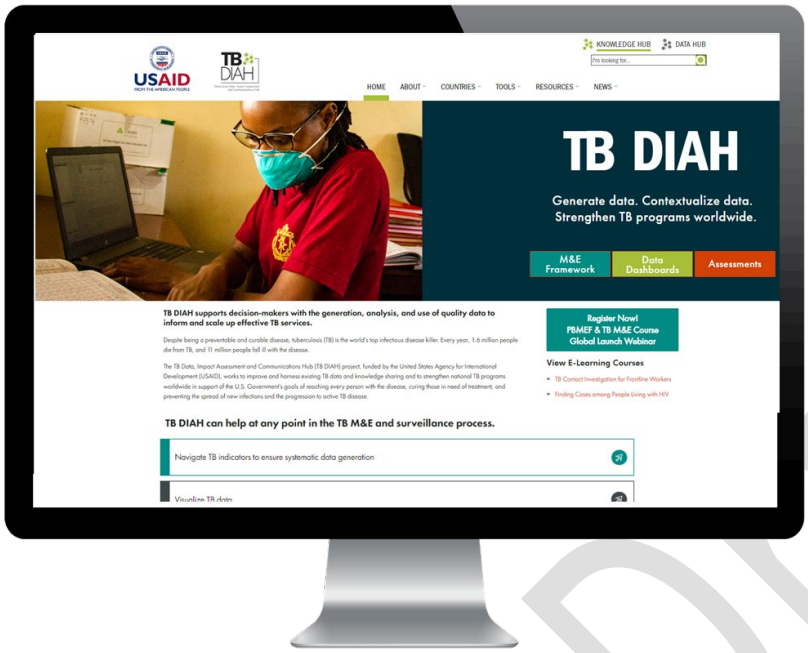


Figure 9: Screenshot of the landing page of the TB DIAH website

***IR 1**: Strengthened collection, analysis, and use of routine health and TB data.*
***IR 3**: Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps*

The TB DIAH website (https://www.tbdiah.org) is comprised of the Knowledge Hub and the TB Data Hub. Together, the two hubs result in a one-stop shop for TB data access, customized analyses, tools, and capacity building for data contextualization and use.

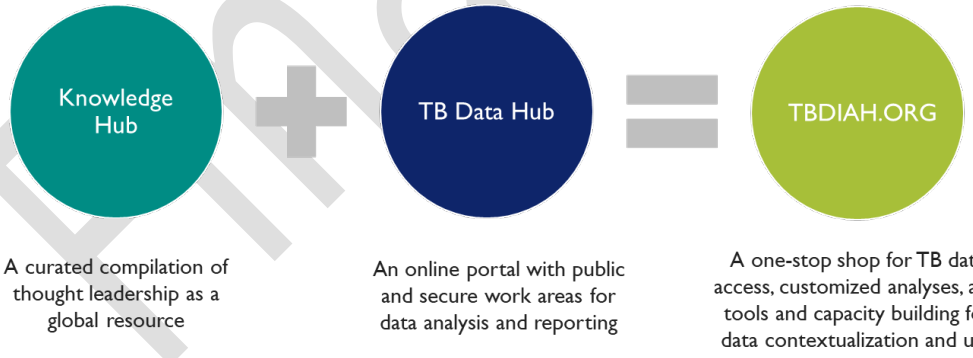


Figure 10: The TB DIAH website is comprised of the Knowledge and TB Data Hubs

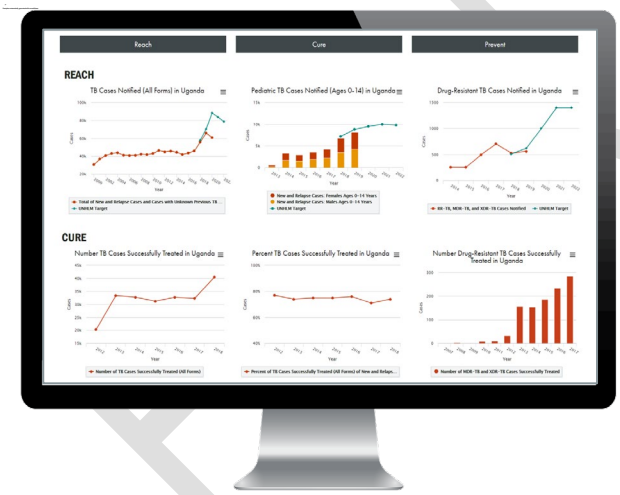
The Knowledge Hub is a collection of the latest surveys and analyses of routine and non-routine information, reporting, guidance, and tools to help TB experts make informed decisions in their

design and management of TB programs. Users can also find instruction on the use of TB DIAH products and best practices in TB M&E. Resources include:

- Guidance and tools from TB DIAH and other key technical organizations, including the WHO, USAID, Ministries of Health (MOHs), and NTPs.
- Infographics illustrating key data and technical concepts.
- Journal and news articles published by TB DIAH, as well as the latest peer-reviewed and grey literature.
- Training materials produced by USAID, TB DIAH MOHs, NTPs, and other key technical organizations, including the WHO.
- Reports and briefs based on findings from TB DIAH's assessments and other works, as well as from key industry organizations.

The TB Data Hub is an online portal designed to support USAID TB program managers, technical advisors, and country stakeholders with data analysis and reporting. It offers visualizations of publicly available WHO data as well as a secure, password-protected work area for USAID TB priority country stakeholders to enter, analyze, and review their own TB data.

One important feature on the TB Data Hub is the Data Explorer, which allows users to create data visualizations using TB data provided each year by NTPs to the WHO or Stop TB Partnership. The Data Explorer allows users to:



- Quickly build a table or chart for an indicator or set of indicators.
- Track one or more indicators over time or across geographies.
- Compare regions or countries performance with one or more indicators.
- Toggle between "Chart" and "Table" displays.
- Specify date ranges of interest.
- Download any chart or table they create.

Figure 11: The TB Data Hub's Data Explorer allows users to visualize and manipulate key TB data

Assessment of Data Collection, Reporting, and Analysis Capacity Tool

IR2: Improved design and implementation of M&E frameworks and information

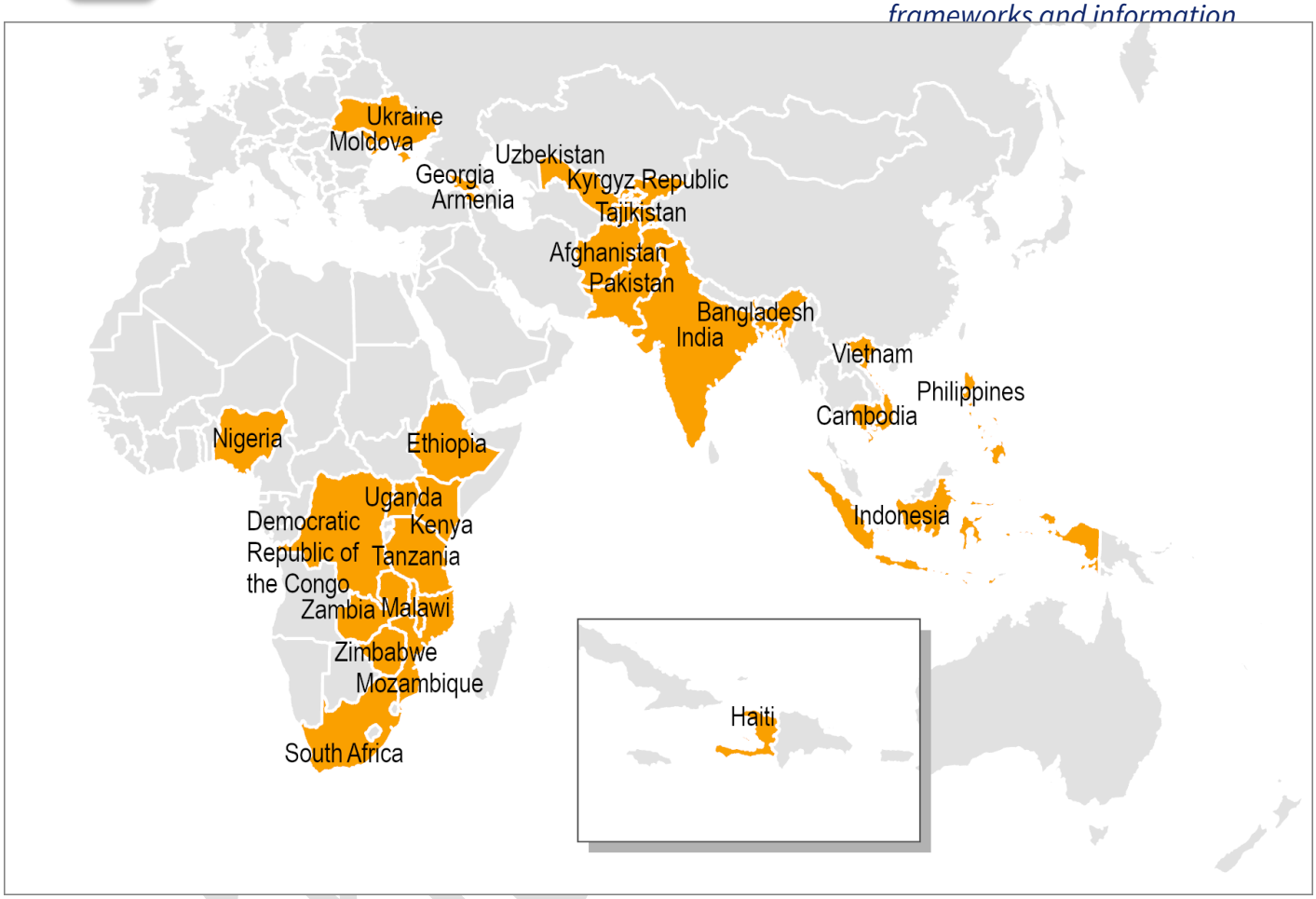


Figure 12: ARC reports were completed for 27 countries.

(ARC)

USAID requested an assessment tool to systematically track indicators in the PBMEF and identify strengths and gaps in the TB M&E and surveillance system. The ARC was designed for USAID Missions and NTPs to map the readiness and capacity of the current TB M&E and surveillance system to collect, report, analyze, and use various data elements of select PBMEF indicators to improve the TB situation in their country. The ARC provided a critical step toward strengthening a country's TB M&E and surveillance system to collect, analyze, and use PBMEF indicators and assess the capacity of the countries to collect and report on TB program sustainability indicators. The tool captured whether data related to the select indicator groups in the PBMEF (e.g., treatment, drug-resistant TB [DR-TB], CI, childhood TB, TB-HIV, etc.) are being collected by the NTP, other departments of the MOH, or non-NTP/private providers.

IR 1: Strengthened collection, analysis, and use of routine data.

Information regarding which data are reported, method of data reporting, and reporting coverage by administrative level were also collected.

Key Learnings

Most priority countries are collecting data for the Core and Core Plus PBMEF indicators. However, data collection from the private sector is not yet universal, and data for some indicators related to contact screening and TB preventative treatment as well as sustainability are not yet reported to the NTPs. In terms of data systems, a few countries have moved to using web-based/online systems, while most countries are using a hybrid system, which consists of both paper-based and electronic systems.

Key Achievements

Key ARC resources include the ARC tool and guidance document, the ARC video, a one-page overview, and a FAQ document, all of which are available in English, Portuguese, French, and Russian; the ARC orientation and training materials; and final ARC reports for USAID priority TB countries.

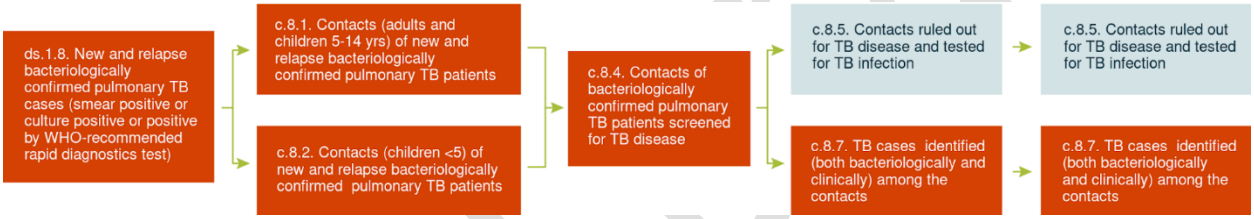


Figure 13: An indicator diagram from an ARC report showing an example of which data elements were and were not collected.

M&E and Surveillance System Assessment (MESSA)

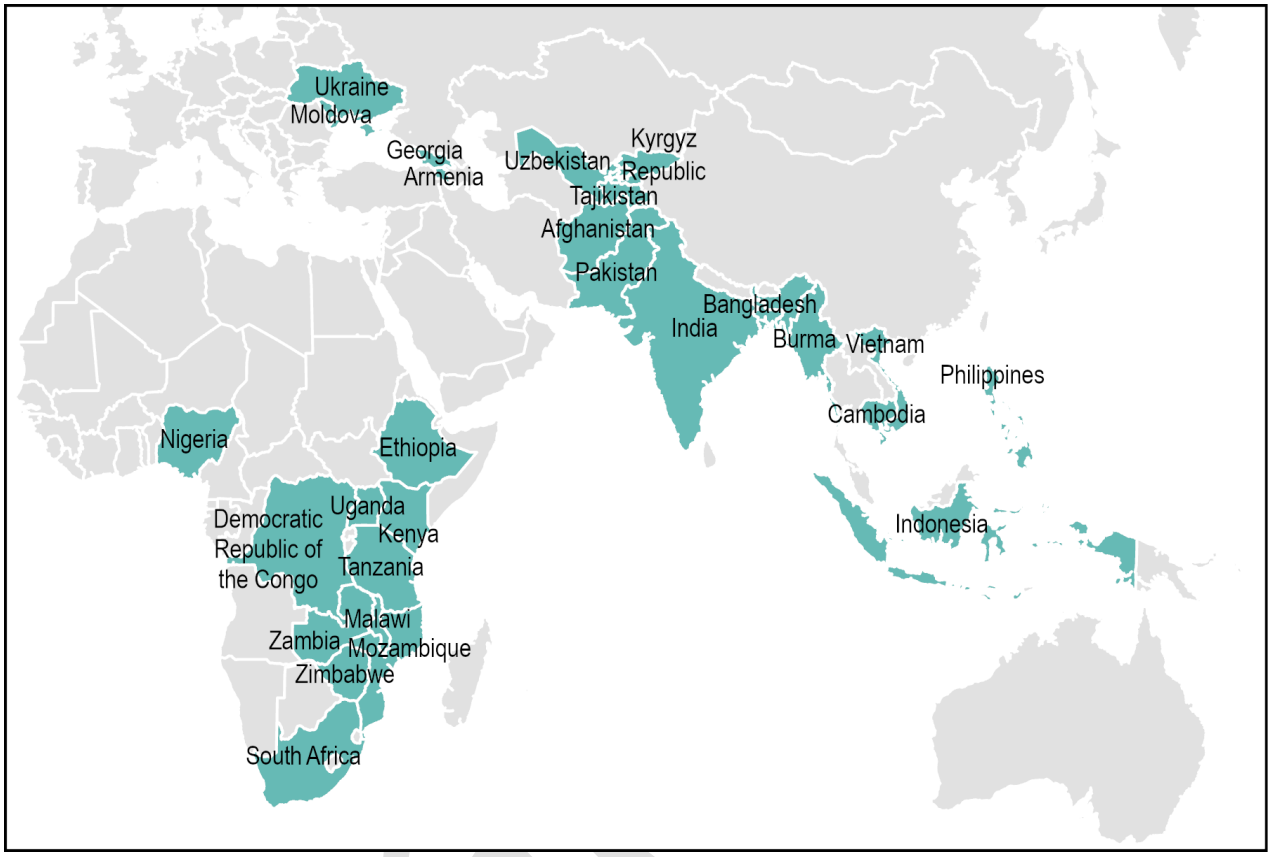


Figure 14: MESSAs were completed for 27 countries.

***IR 1**: Strengthened collection, analysis, and use of routine data.*

The MESSA provides a detailed picture of the TB M&E system landscape for USAID high-priority countries by identifying the baseline status of a country and informing M&E system strengthening approaches. The MESSA tool was developed and used to conduct a desk review of all online documents and guidelines for each of the USAID TB priority countries and three additional non-TB priority countries. The tool covers topics such as TB service delivery and TB management information system (MIS) overview, including the system map; TB M&E system governance; laboratory and logistics for TB; data quality, use, and communication; and TB program financing. Country profiles were developed from synthesized data and were used to support both the ARC and STEP assessments. In conjunction with the ARC, MESSA works to identify where countries need to strengthen the collection, reporting, and use of their TB data. It provides a jumping-off point to prioritize existing gaps in the M&E system landscape, as well as a plan for identified strategies and interventions to address them.

Key Learnings

While MESSA assessments were mostly conducted by using available online documents, engagement with the NTP from the beginning (e.g., data collection, analysis, report writing, and dissemination) may be considered for any future assessments. When TB DIAH was able to engage with a country's NTP for a MESSA assessment, the current documents for review were more accessible, inputs from key stakeholders increased, and the MESSA reports were more accessible to relevant stakeholders and the findings were more likely to be used for planning (e.g., Pakistan and the EEE countries).

Key Achievements

MESSA profiles of the 24 USAID high-priority countries and three additional countries in Eastern Europe provided insight into those countries' existing TB M&E systems and informed strategies for strengthening them.

Surveillance and TB M&E Strengthening Plan (STEP)

IR 1: Strengthened collection, analysis, and use of routine data.

USAID needed a tool that provided a comprehensive assessment of the technology and processes involved in developing and implementing an electronic TB Management Information System (e-TB MIS) in a country. After initial engagement with colleagues in the Kyrgyz Republic in 2021, TB DIAH worked with USAID to design and draft the STEP, a systematic process that provides a comprehensive landscape of the TB M&E and surveillance system in a country along with a costed action plan for improvement and blueprints for specific implementation of identified actions. The STEP builds on information gathered through the ARC and MESSA.

Implementing the STEP consists of the following steps:

- A desk review
- Information gap mapping and expert interviews
- Findings review and synthesis
- Validation and prioritization workshop
- Action plan and budget

Key Learnings

A comprehensive landscape analysis of the eTB-MIS takes time and extensive effort; however, it is an important step in understanding often overlooked aspects of the system. While many surveillance system assessments produce quantitative results, STEP's qualitative approach provided a detailed description of how the surveillance system is laid out and functions in a country, as well as understanding the ecosystem with which it thrives. These qualitative results are imperative to understanding this ecosystem as well as the surveillance system itself. Finally, while implementing the STEP, it is beneficial to first reach out to the implementing country's NTP to share and explain the STEP landscape analysis findings and recommendations. This can help with NTP buy-in and ownership of results.

Key Achievements

The Guidance for the STEP Process is a draft document for future implementers of the STEP. The 69-page guidance document details how to implement the STEP process and provides resources including:

- Four STEP domain questionnaires: TB M&E System and Surveillance Enabling Environment; Electronic TB Surveillance System Structure; e-TB MIS Management and Performance; and e-TB MIS Data Analysis, Use, and Dissemination.
- A sample gap-map table for analysis.
- A sample STEP workshop agenda.
- Three accompanying blueprints, designed to facilitate the development and implementation of the costed STEP: Enhancement of TB Surveillance System Structure & Enabling Environment; Transitioning from a Paper-based to an Electronic TB Surveillance System and

Enhancing the e-TB MIS; and Interoperability Implementation Strategy for a National e-TB MIS; as well as corresponding templates for each blueprint.

These tools and resources supported the development of the Surveillance and TB M&E Strengthening Plan: Kyrgyz Republic Report, which focused specifically on the STEP implementation and recommendations from the Kyrgyz Republic workshop held in 2022.

The Quality of TB Services Assessment (QTSA)

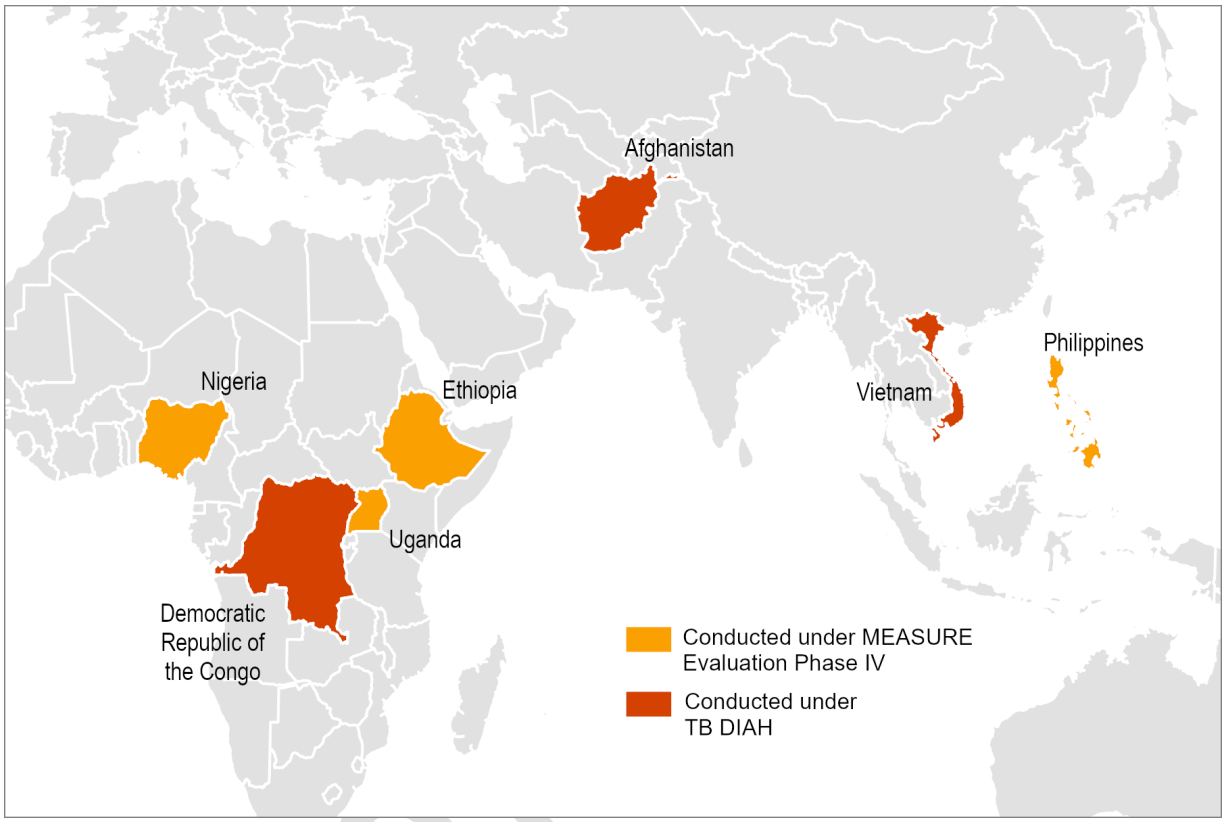


Figure 15: A total of seven countries completed QTSA activities under the MEASURE Evaluation (Ethiopia, Philippines, Nigeria, and Uganda) and TB DIAH project (Afghanistan, DRC, and Vietnam.

The QTSA is a facility-based survey method with tools specifically designed to assess the quality of TB diagnosis, treatment, and care services. Results from the QTSA help decision makers and program managers develop and implement action plans to improve the quality of TB services.

***IR 1**: Strengthened collection, analysis, and use of routine data.*

The QTSA provides NTP managers and donors with data on three domains of quality of care: the structure and resources available for the delivery of TB services, the service delivery process, and the outcomes of service delivery. Data from multiple perspectives are collected using four core tools: a Facility Audit, Provider Interview, Patient Interview, and Register Review Tool. The QTSA was started under the MEASURE Evaluation project and transferred to TB DIAH.

TB DIAH completed development of a suite of global QTSA tools and resources; conducted QTSAs in Afghanistan, the DRC, and Vietnam; and produced several QTSA resources based on research conducted under MEASURE Evaluation Phase 4.

Key Achievements

Global Tools and Resources

- Global QTSA Toolkit: this comprehensive toolkit includes standardized Global QTSA Tools, the Global Implementation Guide, and Supplemental COVID-19 Modules. A revised version of the Global QTSA Tools was released in 2024 to reflect the most up-to-date normative TB guidelines from WHO.
- QTSA Data Explorer on the TB Data Hub, which draws upon a database of selected QTSA data elements to provide an interactive visualization tool for QTSA results.
- Routine Data QTSA Scorecard, developed for use in routine data monitoring processes. The scorecard is agile and provides service delivery information in a succinct and cost-effective way.

Country-Specific Tools and Resources

- The DRC QTSA was a nationally representative study conducted at 227 public sector TB diagnosis, treatment, and prevention facilities across 51 health zones located in 6 provinces in the DRC between June and August 2022. In addition to the four core tools, a fifth Community Actor Interview tool was developed and used to gather data on community health actors' perspectives of the quality of TB-related services offered at the facility, as well as the quality of community care available in the catchment area. TB DIAH produced a DRC QTSA technical report, tools, and infographics in French and English.

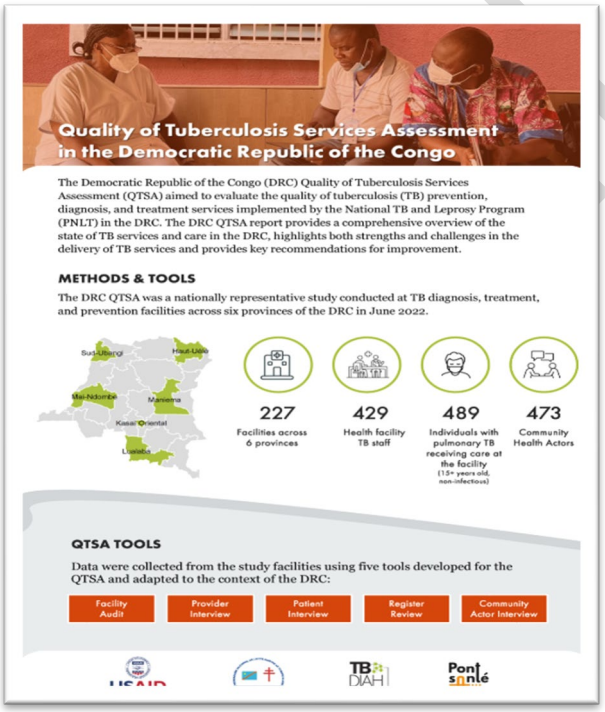


Figure 16: DRC QTSA Infographic

- In Vietnam, the QTSA study was tailored to the Vietnamese context and the data needs of the NTP, in addition to the core QTSA tools, including supplemental modules on latent TB infection (LTBI) and the roll-out of the national health insurance reimbursement scheme to cover TB services. Data were collected from 180 health facilities located in 16 provinces or municipalities in Vietnam between February and April 2023 and generated nationally representative results. TB DIAH produced a Vietnam QTSA technical report and tools in Vietnamese and English.

Figure 17: Sample covers from QTSA reports from the DRC and Vietnam

- In Afghanistan, two USAID-funded TB projects were involved in the implementation of the QTSA and participated in the data review to facilitate the programmatic uptake of results into bilateral project work plans.
- Infographics for Person Centered Care: Finding Missing TB Cases were developed for Afghanistan, Ethiopia, the Philippines, and Uganda, as well as a Contact Investigation: Identifying TB Contacts infographic with CI data from Afghanistan, the DRC, Ethiopia, the Philippines, Uganda, and Vietnam.

Key Learnings

The QTSA is a cross-sectional health facility assessment that can be designed to provide nationally representative data to inform National TB Programs (NTP)s, USAID Missions, and other stakeholders of the quality of TB care in a country and help identify the strategic investments and actions that are needed to improve TB services.

What makes the QTSA distinctive is that, in addition to a detailed facility assessment that includes a comprehensive set of variables related to TB service availability and delivery, the QTSA also includes interviews of TB patients and providers and the review of TB registers to assess TB treatment and other related outcomes. The result is a holistic understanding of TB service quality from the perspective of all stakeholders, including patients, and clearer insight into potentially impactful strategies for improvement.

Countries that have conducted a QTSA have used the findings to guide programs and policy change. The NTP in the Philippines, for example, used the QTSA results to advocate for a more patient-centered approach to DOT and in Ethiopia, the NTP used the findings and recommendations to inform the development of its revised National Strategic Plan.

The QTSA is a USAID investment that has advanced the measurement of the quality of TB services. With its strong emphasis on person-centered care, data from the QTSA can be used to triangulate and complement data that will become available with the roll-out of the PBMEF and the "End TB Now Act."

Data-to-Action Continuum (D2AC)

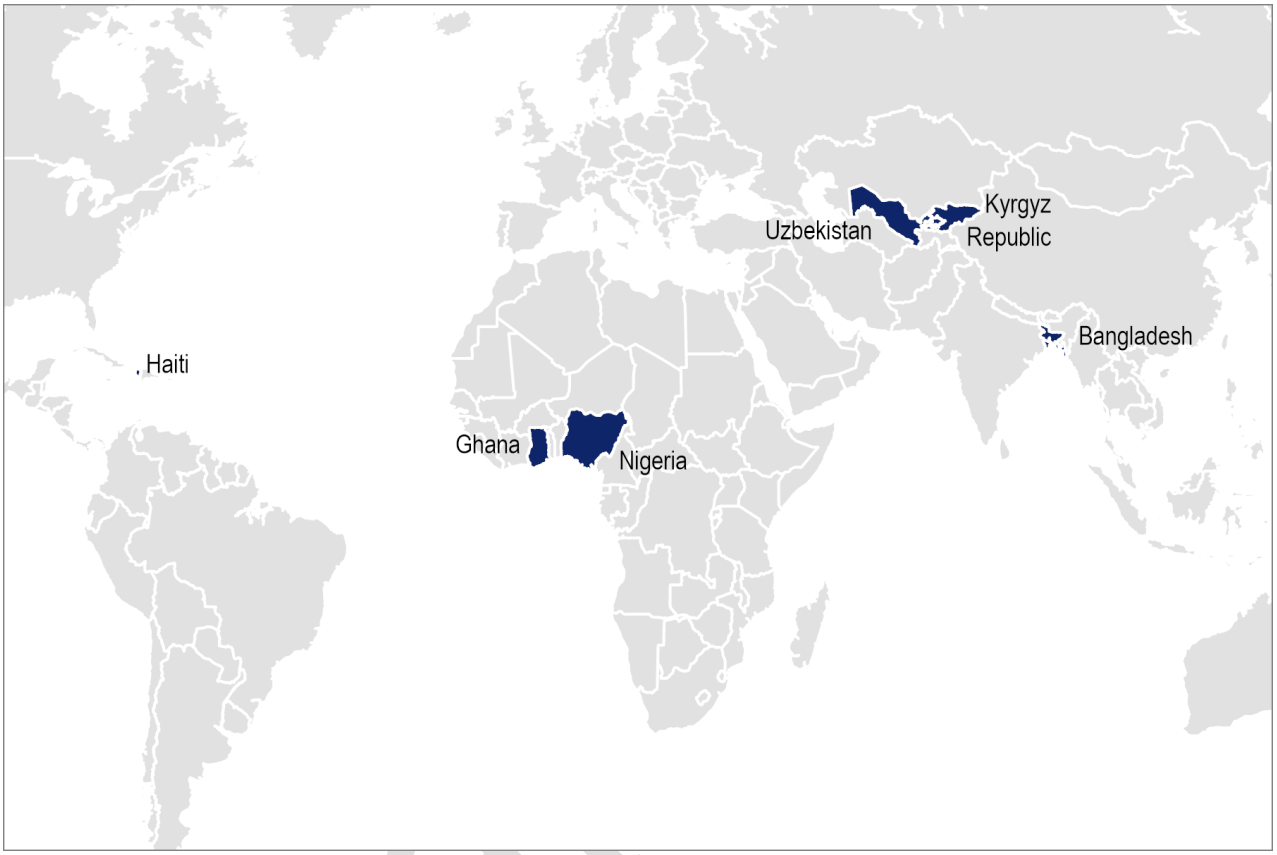


Figure 18: The D2AC was completed for six countries.

IR 1: *Strengthened collection, analysis, and use of routine data*

USAID's Global Accelerator's ambitious goals to end TB focus on performance-based measures for combating TB. It will require enhanced information systems for prevention, early and comprehensive case detection, diagnosis, and effective treatment and monitoring, as well as the use of accurate data on TB service delivery. However, each USAID priority country and NTP is unique in both their health information systems' maturity, as well as the challenges and barriers they face in evidence-based decision making in TB programming. Selecting the right interventions and targeting decision makers at various levels can also be a challenge. USAID identified the need for a systematic approach for identifying the right intervention at the right time to improve an NTP's capabilities to translate data to action at the national, subnational, facility, and community levels.

TB DIAH began extensive research and development of the D2AC to meet that need in Year 2 of the project. The D2AC is informed by a review of peer-reviewed and gray literature and builds on previous experience with maturity models. It is implemented as a facilitator-guided workshop with stakeholders from different aspects of the NTP and levels of the health system. Participants discuss

and derive elements of the NTP's capacity and suggest targeted interventions with the goal of improving the capability to translate data into action. The D2AC was field tested in Ghana, with feedback incorporated and subsequently implemented in five countries (see Fig. X).

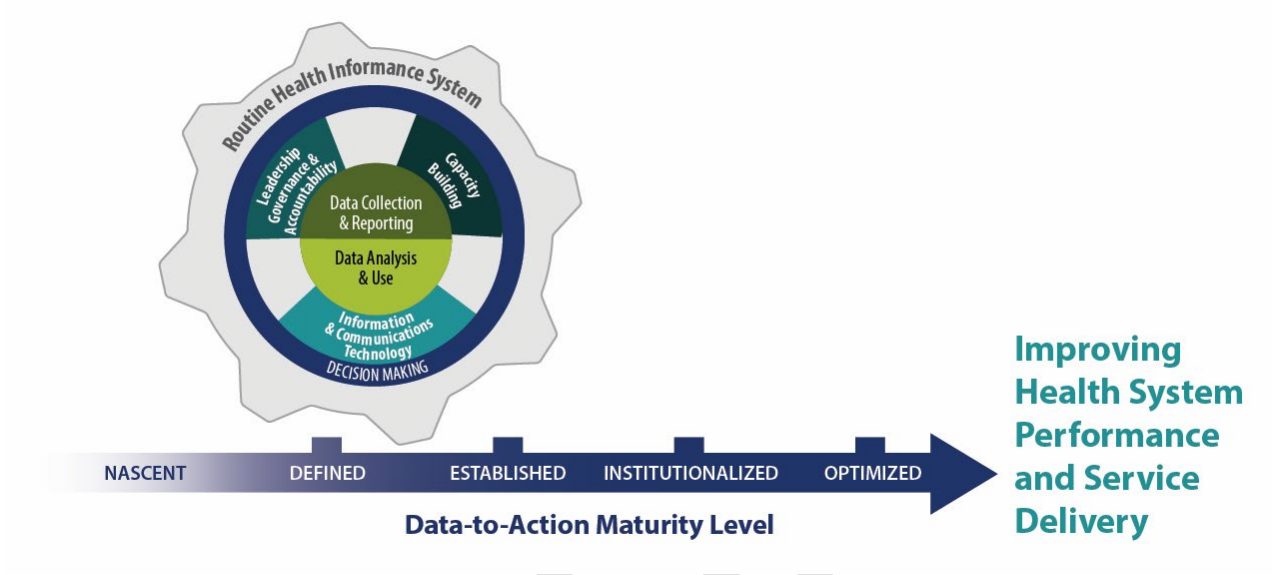


Figure 19: The D2AC maturity model assesses a country's health information system capacity and challenges related to TB data collection, reporting, analysis, and use.

Key Learnings

Developing a robust, comprehensive tool that can be implemented in varied countries' contexts requires active partnerships and collaboration from multiple countries, as well as documented learnings and incorporation of feedback throughout development. The tool is digital, downloadable, accessible, and doesn't require external technical assistance (TA) to implement, but D2AC country implementation encourages an established flow of communication from logistics to process to follow-up with both USAID Mission staff as well as NTP staff.

Key Achievements

The D2AC is a global good that can assess a country's NTP's data use capabilities. D2AC tools and resources include:

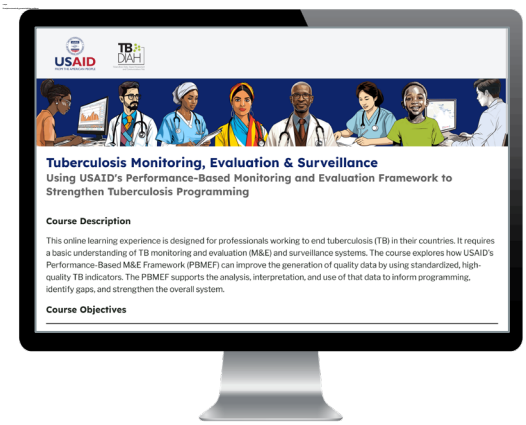
- A TB D2AC Toolkit is available in English (MS Excel and online), French (MS Excel and online), and Russian (MS Excel version only)
- Six published country reports on implementations of the TB D2AC, including customized action plans
- Two peer-reviewed journal articles in the Journal of Global Health and Journal of Global Health Report
- Animated video in English and promotional two-pager available in five languages
- Two published D2AC user guides: one on the toolkit and assessment, and one on the online toolkit

Appendix 2: TB DIAH Technical Support

e-Learning Courses

TB DIAH developed multiple online courses to support USAID and its stakeholders in expanding their capacity in key TB data areas. The courses are free and accessible to all TB learners.

TB M&E e-Learning Course



The TB M&E e-Learning course provides a comprehensive understanding of the PBMEF and its practical application. It serves as a companion to the PBMEF Guide, offering an overview of key TB M&E concepts. It includes scenarios and interactive activities that focus on cascade analysis using PBMEF indicators, as well as strategies for presenting TB data to help stakeholders take informed action. It is designed for TB program staff, USAID IPs, and technical advisors involved in reporting, analyzing, and presenting TB data.

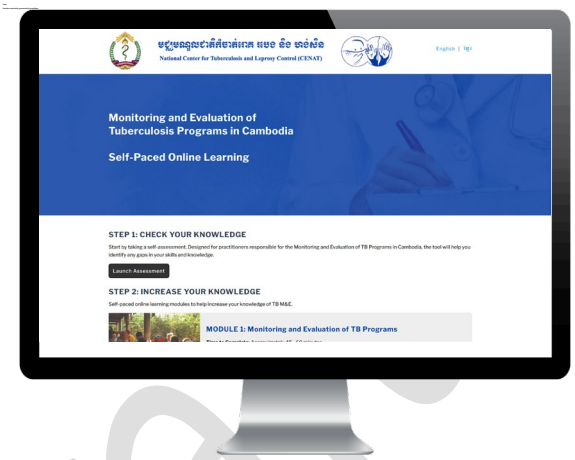
e-Learning for TB Contact Investigation (TBCI)

USAID and TB DIAH developed a series of online courses to train frontline workers and managers to promote active TB case finding through CI and screening of persons living with HIV (PLHIV). These courses are available in multiple languages. These courses can be accessed via a laptop, tablet, or mobile phone and may also be downloaded on mobile devices for completion offline.

- TBCI for Frontline Workers (English, French, Portuguese, Russian)
- Finding TB Cases among PLHIV (English, French, Portuguese, Russian)
- TBCI for Program Managers (English)

TB M&E e-Learning Course for Cambodia's National Center for TB and Leprosy Control (CENAT)

TB DIAH developed an M&E training curriculum to meet the identified needs of CENAT staff. The training explains the fundamentals of TB M&E and surveillance, tying the topics directly to the priorities set in Cambodia's TB NSP. It explains how to analyze, interpret, and synthesize TB data to develop M&E reports with relevant visuals, how to elaborate on the basics of the TB M&E plan, and how to manage a well-functioning M&E system in the context of TB M&E in Cambodia, as well as conduct data quality checks on the data collected from the health center using the Data Quality Review (DQR) toolkit. TB DIAH also produced an online learning version of this curriculum, linked to from both the TB DIAH and the CENAT website.



Trainings and Workshops

TB M&E and Surveillance Trainings

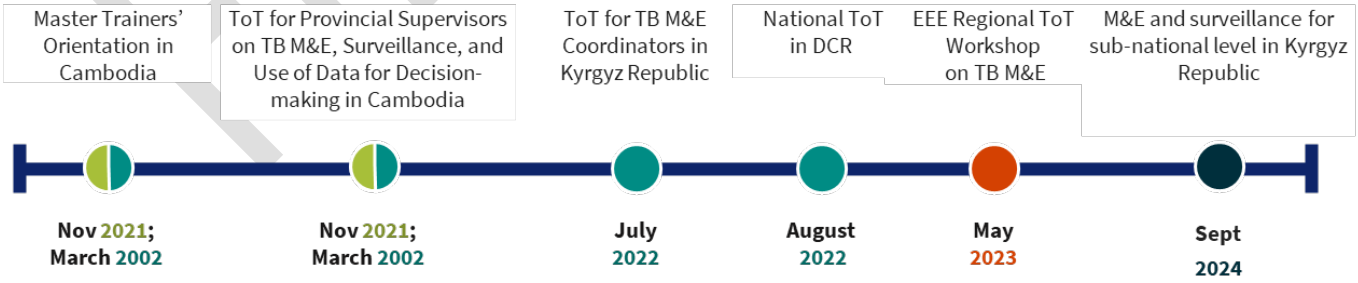
TB DIAH technical experts worked with local partners to implement 11 trainings in TB M&E and surveillance for TB professionals and national and provincial NTP staff.

Africa

EEE

TB M&E Trainings of Trainers (ToTs)

In addition to the TB M&E and surveillance trainings TB DIAH conducted, the project also created ToT materials and organized and led a number of ToTs to support the sustainability of the project's training efforts.



Capacity Strengthening Trainings

TB DIAH conducted trainings to strengthen the capacity of TB M&E professionals in the DRC and Kyrgyz Republic in a variety of topics, including data collection, reporting, and use. In May 2023 in the DRC, this included three days of data management, collection, and reporting trainings for *Programme*

National de Lutte contre la Tuberculose (PNLT) staff. And in June 2024, TB DIAH organized and led a data analysis and interpretation workshop for regional TB coordinators in the Kyrgyz Republic.

In Nigeria, TBDIAH strengthened TB experts' skills and knowledge of how to best summarize data, select the right visual, and interpret data in order to determine policy and programmatic relevance. The training focused on state and local government actors in TB programming.

Also in Nigeria, TB DIAH conducted orientations to the new TB Situation Room for NTBLCP staff at the national level and in select priority states.

Nigeria Data Exchange Trainings

TB DIAH worked with USAID/Nigeria to develop a TB-specific APPR to support data management among USAID and its TB partners, showcase TB data on the Mission's data dashboard, and serve as a data repository for USAID-funded TB programs in the country. TB DIAH also developed an integrated customized DHIS2 platform for the two TB Local Organizations Network (TB LON) partners to facilitate TB data collection from across 18 states. (See Appendix 3: Country Activities for more details.)

TB DIAH organized and led a series of trainings in February and March 2023 for national and state-level staff and IPs to support the integration and use of the APPR into the Mission's data management process. Topics included an overview of the APPR; an introduction to electronic data management; data entry, validation, and analysis; and data quality, among others.

Cascade Trainings on Quantitative and Qualitative Data Analyses in the DRC

TB DIAH supported the PNLT to conduct cascade trainings for stakeholders in M&E at provincial levels with an emphasis on quantitative and qualitative data analyses for the nine *Direction Provinciale de la Santé* (DPS) [Provincial Health Departments] supported by USAID/DRC.

Operational Research (OR)Training

In 2021, TB DIAH worked with the USAID/DRC Mission and the DRC's PNLT to conduct a gap analysis of the TB system. This analysis revealed a gap in information on the drivers of TB in the DRC. To address this gap and help answer major programmatic questions, TB DIAH recommended that the PNLT conduct OR to provide more technical information than the available routinely collected data. The PNLT requested support with the necessary technical capacity, guidance, and funding required for the needed OR studies, and TB DIAH conducted a training on TB OR for DRC PNLT and partners in September 2023.

DQR Trainings

TB DIAH conducted trainings in Cambodia and the Kyrgyz Republic to reinforce local capacity to use tailored data dashboards in their quarterly performance review meetings.

QTSA

Implementation of the QTSA required ToTs and data collectors on the use of the tool's resources.

Assessment Support

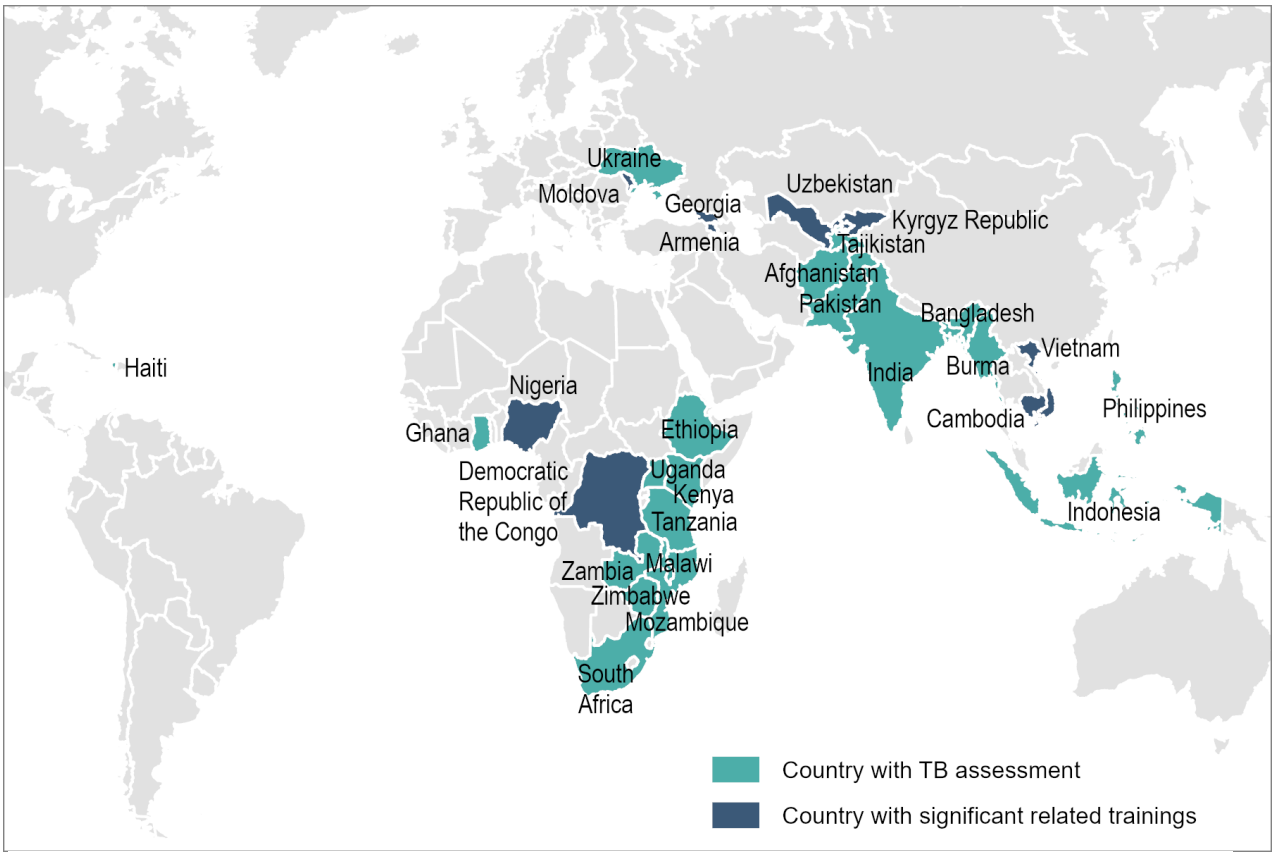


Figure 20: TB DIAH completed assessments in for 29 countries

TB DIAH was tasked with ensuring optimal demand for and analysis of TB data for decision making, supporting data use for performance management, and informing TB programs and policies. To achieve these objectives, TB DIAH developed several tools and resources to assess the current capacity, quality, and readiness of countries' TB M&E and surveillance systems to identify areas for improvement, and supported the implementation of assessments for nearly 30 countries. The assessments included the ARC, MESSA, D2AC, QTSA, STEP, NTP website assessments, and prevention indicator assessments. Not only did the assessments help NTPs with identifying where and how their TB data and M&E systems could be improved, but the technical support TB DIAH provided built upon the strengths of local staff and systems to strengthen their capacity to implement assessments and use data for evidence-based decision making.

IR 1: *Strengthened collection, analysis, and use of routine data*

IR 2: *Improved design and implementation of M&E frameworks and information gathering processes, including tools, methodologies, and technical guidance to meet users' needs*

IR 3: *Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps*

Key Learnings

Maximizing stakeholder involvement and country leadership by providing appropriate resources and TA was essential for ensuring country ownership of the assessments and acceptance of the assessments as an important part of improving an NTP's TB M&E system. TB DIAH provided detailed instructions and user-friendly templates for the assessment tools, translation of materials into local languages where appropriate, adaptation of some of the tools to the local context, hiring local consultants, conducting stakeholder buy-in meetings, and tailoring the TA to the specific stakeholders and setting.

Key Achievements

There were 143 instances of assessment support provided over the course of the project, as shown in the table on the next page.

Country Achievement Highlights

In the Kyrgyz Republic, the ARC findings were presented to the NTP, which made the decision to include all the PBMEF Core indicators into their revised TB M&E plan. Eight of the Core indicators were also included in their NSP.

Despite significant complications on the ground, TB DIAH supported the completion of an ARC assessment, a D2AC workshop and a draft M&E Plan for Haiti between 2022 and 2024.

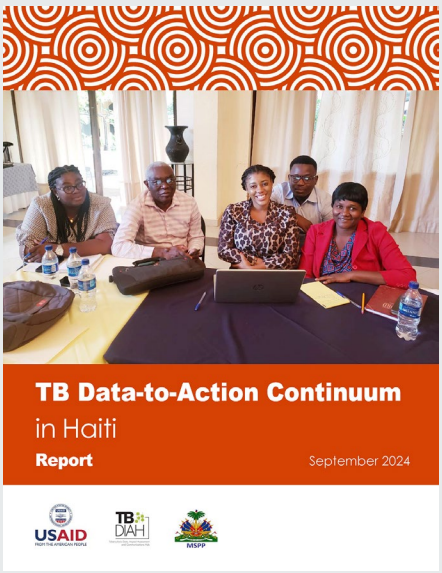


Table 1: TB DIAH Assessment Support by Topic and Country

	ARC	MESSA	D2AC	QTSA	STEP	Prevention Indicator Assessment	Assessment of the TB HMIS	Data Quality Assessment	DHIS2 Capacity Assessment	RECAP Assessment	TB M&E Capacity Assessment	NTP Website Transparency Assessment	TBSR Needs Assessment	NTP M&E and Surveillance Capacity Assessment
Afghanistan	•	•		•		•								
Armenia	•	•					•							
Bangladesh	•	•	•			•								
Burma		•				•								
Cambodia	•	•				•					•			
DRC	•	•		•		•		•	•					
Ethiopia	•	•				•								
Georgia	•	•					•							
Ghana			•											
Haiti	•		•											
India	•	•				•								
Indonesia	•	•				•								
Kenya	•	•				•								
Kyrgyz Republic	•	•	•		•	•				•	•	•		•
Malawi	•	•				•								
Moldova	•	•												
Mozambique	•	•				•								
Nigeria	•	•	•			•	•	•				•	•	
Pakistan	•	•				•								
Philippines	•	•				•								
South Africa	•	•				•								
Tajikistan	•	•				•								
Tanzania	•	•				•								
Uganda	•	•				•								
Ukraine	•	•				•								
Uzbekistan	•	•	•			•	•							
Vietnam	•	•		•		•								
Zambia	•	•				•								
Zimbabwe	•	•				•								

TB Data Special Interest Group (SIG)

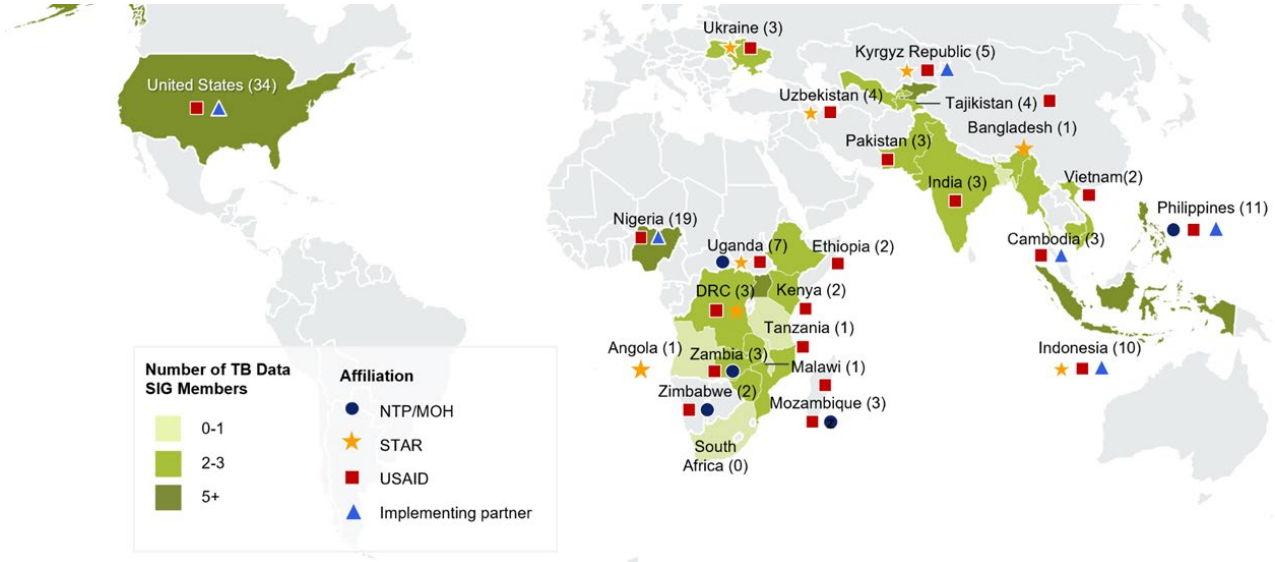


Figure 21: TB Data Special Interest Group Member Countries and Affiliations

***IR 3**: Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps*

The TB Data SIG was formed to serve as an overall advisory board or steering committee for the TB DIAH project, as well as a community of practice and resource group of technical experts to provide guidance and establish a governance structure for PBMEF implementation across USAID-supported countries.

The SIG is comprised of over 170 members representing USAID Washington and USAID Mission staff and select IPs from across the 24 USAID TB priority countries, with additional participation from several non-TB priority countries.

In monthly meetings, the SIG heard from USAID/Washington about the latest developments and global priorities and from the TB DIAH team on the resources and tools in progress. SIG members provided guidance and feedback on TB DIAH product development and shared their experiences using USAID data collection processes and products, including best practices and lessons learned.

TB Data SIG members met in person at the 2023 Union Lung Conference in Paris, France. Photo credit: TB DIAH

The Center of Excellence (COE) in TB M&E and Surveillance

IR 1: Strengthened collection, analysis, and use of routine health and TB data.

The COE in TB M&E and Surveillance was created to serve as a hub for TB DIAH support in the EEE region and ensure synergy, sustainability, and effective use of resources. The COE was expanded to include representatives from Central Asian (CA) countries to strengthen their TB M&E systems and facilitate learning exchange with the EEE countries. The COE contributed to TB M&E, OR, dissemination, expertise capacity building, and knowledge sharing across the EEE and CA regions and served as a regional model for best practices in TB M&E and surveillance. After a detailed process of identifying a COE host country that used clearly defined criteria and scoring, Georgia was selected, and the COE was formally launched at a founding event in May 2022. Using a virtual model, the COE, which is hosted by Georgia's National Center for Disease Control and Public Health (NCDC) and the National Center for Tuberculosis and Lung Disease (NCTLD), was designed to improve Georgia's TB data collection, reporting, and sharing for its own effective decision making. The COE's audiences are the NCDC and NCTLD, who received TB DIAH support, as well as the ten EEE and CA countries which continue to benefit from the best practices, lessons learned, and TA of the COE country.

Key Learning

Establishing a high-quality, committed, and sustainable COE requires intensive, consistent, and long-term engagement with the host country NTP. It requires the on-the-ground presence of a project staff member and regular meetings and visits to provide the type of assistance and relationship building needed to develop and maintain the COE. It also requires the support of an established body, such as the WHO, to lend credence to the COE and support the model after the project ends.

Key Outputs

TB DIAH strengthened the capacity of the COE stakeholders and supported several COE-hosted activities. These included the following:

- Two-day Regional Consultative Meeting in Tbilisi in July 2022 with more than 40 participants from Armenia, Azerbaijan, Georgia, and Moldova laid a solid foundation for collaboration and effective country engagement.
- COE conducted national review meetings in each of the intervention countries in October and November 2022.
- The three-day Regional Training Workshop on TB M&E and Surveillance Capacity Strengthening for EEE and Central Asian NTPs was held in Tbilisi in November 2022. Over 90 participants came from five EEE and five CA countries to address the overarching need to strengthen the capacity of NTP staff to improve TB data collection, reporting, analysis, and use.

Leveraging AI for TB

One of the main features of the COE website is MELVIN, which stands for Monitoring, Evaluation, Learning, Vision, and Information. MELVIN is a conversational artificial intelligence (AI) chatbot aimed at expanding M&E knowledge and enhancing learning experiences in TB. MELVIN offers support in multiple languages, making learning accessible to a broader audience and breaking language barriers. It represents TB DIAH's vision to harness the power of emerging technology to navigate professionals in relevant resources and information.

- In May 2023, the COE hosted a Regional ToT in TB M&E and Surveillance to provide a foundation for critically reviewing, understanding, and using routine TB surveillance data through the practical examples of analysis, interpretation, and visualization of the data at subnational and national levels. The five-day in-person training was held in Tbilisi with 18 NTP representatives and affiliated M&E staff from Armenia, Georgia, Moldova, and Ukraine.
- The COE provided TA to the Kyrgyz Republic to guide the establishment of the NTP's new strategic department.
- TB DIAH launched the COE website (https://coe.tbdiah.org/) as a repository for COE information and resources.
- In October 2023, the COE hosted an EEE and CA Regional Conference on TB Data Reporting, Analysis, and Use in Tbilisi with 70 participants from seven countries to improve data use, promote experience sharing among countries in data use, share success stories and lessons learned, address cross-border data issues, share updates to the PBMEF, and provide USAID, WHO, and Global Fund updates.
- TB DIAH supported the establishment of a COE-led Regional Technical Working Group (TWG) in TB M&E and Surveillance. It acts as a consulting team, offering hands-on guidance on implementing the COE model and its various activities, and provides a platform for leveraging existing TB expertise, encouraging regional collaboration, and promoting best practices. The TWG is an important mechanism to ensure sustainability of COE activities in the region.

"We are proud that our country has been selected as a COE country and we, along with the NCTLD, look forward to working with the TB DIAH project to improve our TB data."

- Dr. Amiran Gamkrelidze, former Director General of the NCDC

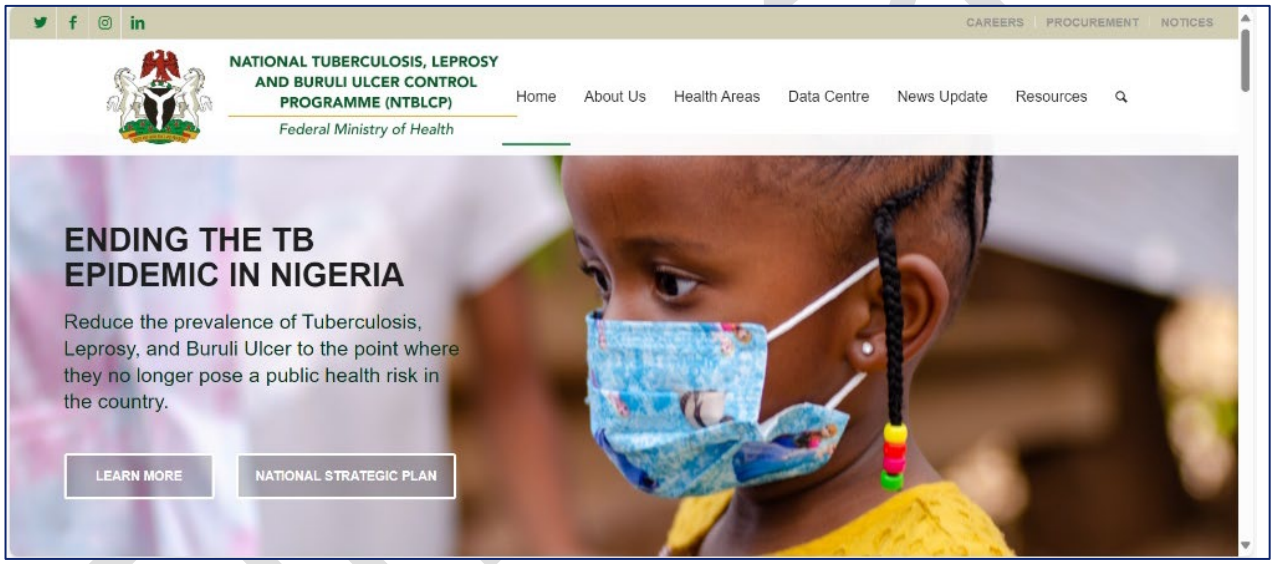
National TB Program (NTP) Websites

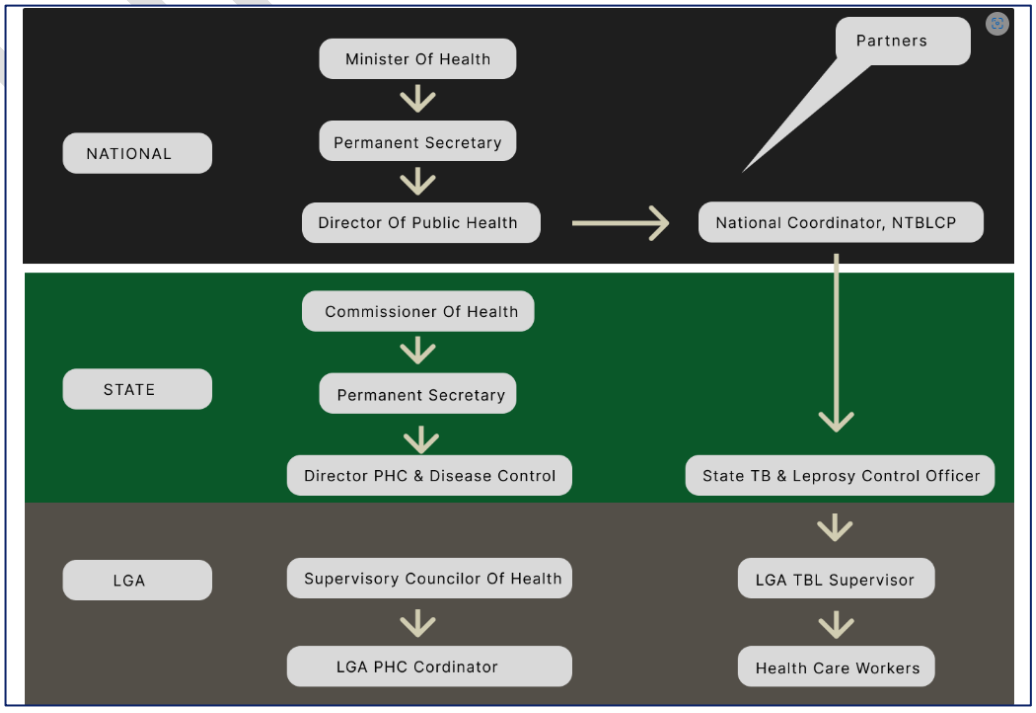
IR 3: Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps

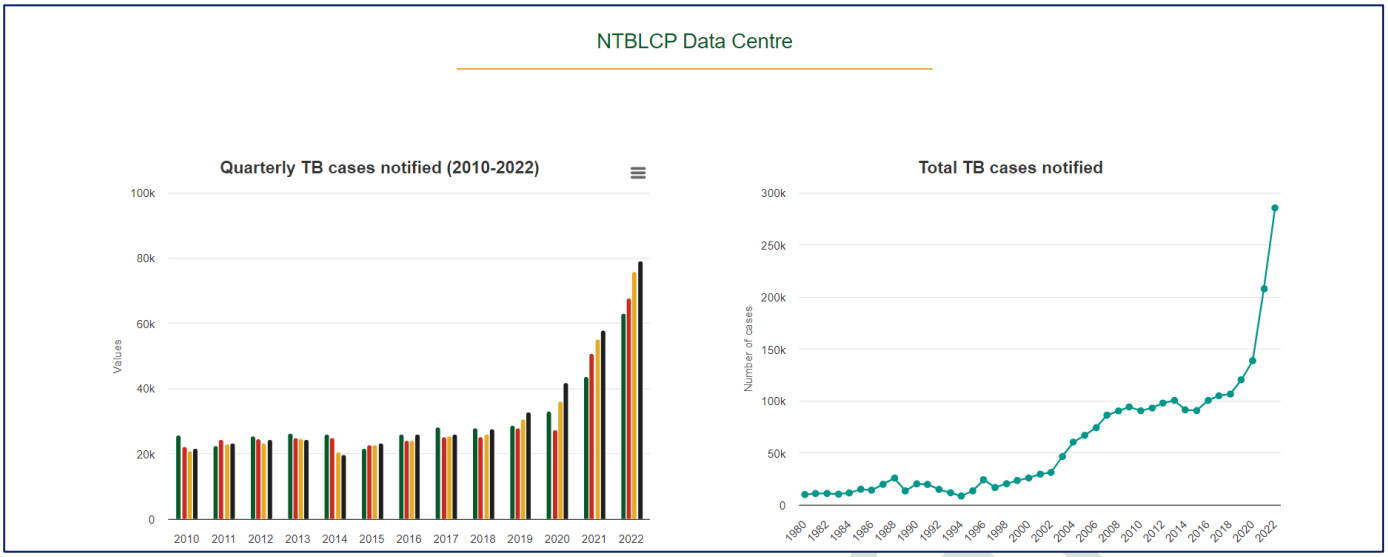
The NTP Website Activity was created to offer support to NTPs in improving their program transparency according to the standards established by the Stop TB Partnership's 2021 TB Program Governance Assessment. TB DIAH worked with the NTPs and local partners of the Kyrgyz Republic and Nigeria to evaluate their existing sites and detail needed changes.

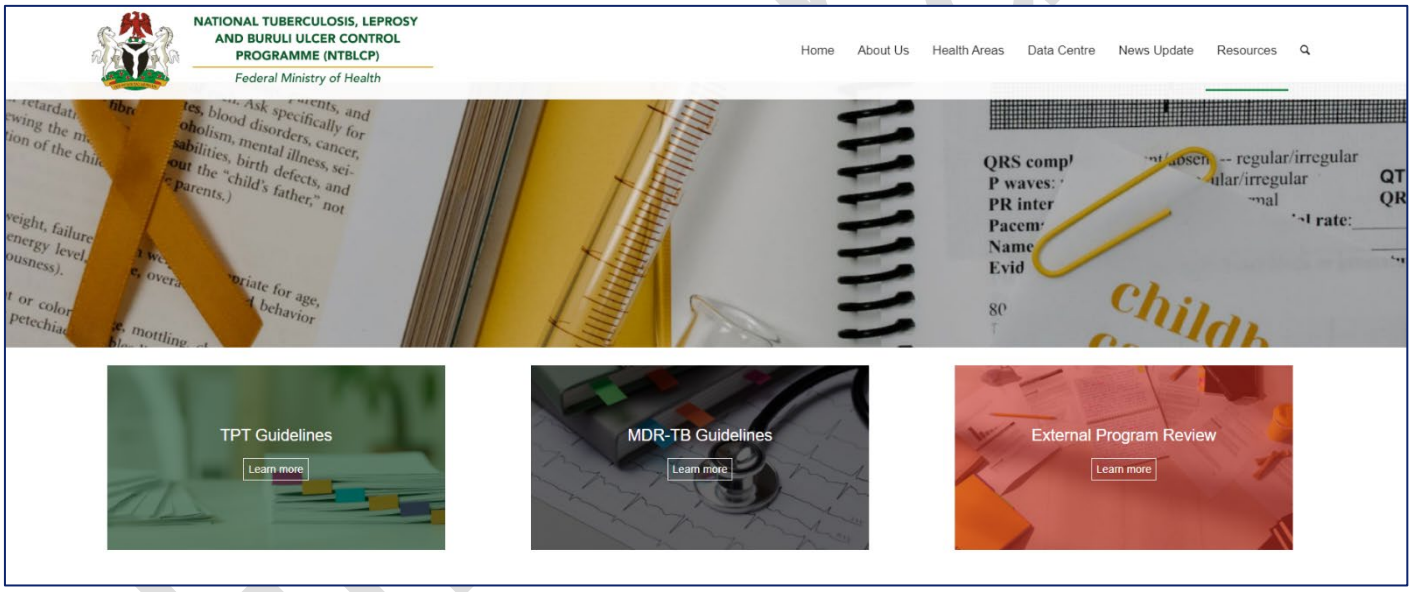
In the Kyrgyz Republic, TB DIAH evaluated the NTP's recently relaunched website against the transparency criteria and conducted a landscape assessment to develop a report of recommendations for changes and additions.

Nigeria's National TB and Leprosy Control Program (NTBLCP) required a new website to be built. TB DIAH completed a landscape assessment and developed and launched the new website in collaboration with the NTP, USAID, and other local stakeholders.









Figures 22-25: The new NTP website for Nigeria features key transparency elements including links to the current National Strategic Plan, an agency organogram, select key data, MDR and TPT Guidelines, and External Program Reviews.

"We have a simple and amazing new website built by the TB DIAH project. Patients can find the nearest services to them based on their geolocation. It's really wonderful."

~ Dr. Chijioke-Akaniro Obioma, Monitoring and Evaluation Manager, Nigeria NTBLCP

Appendix 3: Country Activities

Afghanistan

Dates of TB DIAH Activities: April 2020 to May 2022

Partners and Stakeholders: *USAID Mission, Welfare Organization for Rehabilitation Livelihood & Development (WORLD), Afghanistan Ministry of Public Health (MoPH), Afghanistan NTP, the Global Fund, Sustaining Technical and Analytical Resources (STAR) Advisors*

Key Activities

TB DIAH initiated activities in Afghanistan after MEASURE Evaluation transferred the QTSA activity to the project in April 2020, following approval of a field-funded work plan by USAID/Washington. Tool adaptation and orientation and a virtual ToT occurred the same year, but the COVID-19 pandemic delayed data collection until early 2021. Despite the delay, TB DIAH completed the Afghanistan QTSA and produced a final report in 2022.

Afghanistan was included in two global assessment requests from USAID—the ARC and the individual country Prevention Indicator Profile.

Key Learning

COVID-19 modules demonstrated the impact of the pandemic on TB services. The Afghanistan QTSA, which was conducted at the height of the COVID-19 pandemic, included modules that assess the impact of COVID-19 on TB services, providing data-derived evidence of how COVID-19 has set back progress in TB services.

The TB DIAH team was not able to work with the local partners, the NTP, or the Mission in Afghanistan after mid-August 2021. The TB DIAH HQ staff finished data analysis and drafted the final report. Reviewers included USAID/Washington as well as staff from Assistance for Families and Indigent Afghans to Thrive (AFIAT) and Urban Health Initiative (UHI), the two USAID-funded TB projects in Afghanistan. These perspectives were particularly helpful since AFIAT and UHI had been involved in QTSA implementation and participated in the data review meeting. TB DIAH used the feedback from these stakeholders to finalize the Afghanistan QTSA report.

The Afghanistan QTSA technical report, tools, and dataset were finalized and deliverables completed in Year 4 Quarter 2. The report and tools have been shared with the USAID TB bilateral organizations working in Afghanistan, AFIAT and UHI. In addition to the technical report, a summary matrix of QTSA findings along with proposed recommendations was also developed and shared with AFIAT and UHI via USAID/Washington.

Key Achievements

TB DIAH generated several key reports and tools through its work in Afghanistan, including the Afghanistan QTSA Tools and Report, an Afghanistan ARC Report, the Afghanistan TB Prevention Indicator Profile, and the Afghanistan PBMEF Core Indicator Assessment Results. These products are not available to the public.

Impact

A Global Fund/United Nations Development Programme (UNDP) Grant Revision Workshop was conducted at the end of May 2022 in Pakistan to review and determine the next round of investments in Afghanistan through the combined grant to support HIV/AIDS, TB, malaria, and health systems. TB DIAH shared the final QTSA technical report with meeting participants via USAID/Washington. In addition, at the request of the meeting organizers, the NTP presented the QTSA results to inform the process, demonstrating country ownership of the assessment results and use of information.

Cambodia

Dates of TB DIAH Activities: December 2020 to December 2023

Partners and Stakeholders: *MOH, CENAT, Cambodia's Committee for TB Research (CCTBR), Interagency Coordination Committee (ICC), USAID'S Community Mobilization Initiatives to End Tuberculosis (COMMIT) Project, USAID Mission, STAR Advisor*

This activity, implemented in collaboration with the USAID Mission in Cambodia and relevant IPs, worked to improve the performance of the TB M&E system in Cambodia in four ways:

1. Strengthen the capacity of national- to district-level CENAT staff to conduct the routine data quality and use for regular TB M&E.
2. At the invitation of the USAID Mission, support Cambodia's development of a national TB M&E plan as required by the Global Fund.
3. Help CENAT strengthen and streamline its TB data management efforts, converting it to an electronic system and improving human resource capacity to use it.
4. Expand CENAT's OR capacity by strengthening the CCTBR, a unit of CENAT, to independently implement its priority TB OR agenda.

Key Activities

Objective 1: Support TB M&E Capacity Strengthening for CENAT Staff

TB DIAH began its work in Cambodia in 2021 when the project was asked to conduct capacity strengthening activities in TB M&E for CENAT staff at the national, provincial, and operational district (OD) level. The project's first step was to invite representative CENAT staff to complete the Capacity Assessment Tool, a virtual survey tool developed by TB DIAH. Of the 164 staff invited to participate, 80 responded to the evaluation, including 47 from TB ODs, 20 TB provincial medical supervisors, 9 local TB lab supervisors, and 4 national-level managers and statistical officers.

Based on these assessment findings, TB DIAH developed an M&E training curriculum to meet the identified needs of CENAT staff. The training included fundamentals of TB M&E as well as DQR skills building. TB DIAH also produced an online learning version of this curriculum, hosted on both the TB DIAH and the CENAT website. Next, TB DIAH held two ToT sessions for the selected facilitators.

TB DIAH developed data dashboards to visualize disaggregated health facility data. This dashboard supports TB performance monitoring at the OD level. Together, the DQR and dashboard ensure better data, align with the NSP targets, and disseminate technically sound information to stakeholders for resource mobilization and rational allocation of funds. Electronic versions of these resources (all available in Khmer) were developed to ensure the sustainability of this work, ensuring accessibility and CENAT ownership of them moving forward. These resources were then integrated into existing quarterly review meetings held by CENAT to ensure their systematic application and use. The quarterly program review meeting (QPRM) package includes the DQR, the health facility dashboard, the M&E plan process indicators monitoring checklist, and a job aid to explain the use of these resources. These tools and resources are used in the QPRM to review data quality across health facilities within an OD, highlight key TB program performance indicators, identify potential problem areas, and track progress in the implementation of the NSP processes. The ODs will continue to host QPRMs, using these tools and resources to make their review processes more systematic and consistent.

Objective 2: Develop a TB M&E Plan to Support Cambodia's NSP

As this capacity strengthening work was being completed, TB DIAH was also working to assist CENAT with developing a TB M&E plan to support Cambodia's NSP to End TB 2021-2030. This was a high priority for the USAID mission. As part of this effort, TB DIAH worked with Cambodia's ICC, established to facilitate information exchange and discussion among the NTP and its partners. The ICC provided technical support during the review and finalization of Cambodia's TB M&E plan. TB DIAH shared the draft and, in collaboration with CENAT, organized a workshop to finalize the TB M&E plan. The new plan was finalized in January 2023, and TB DIAH subsequently supported its national dissemination.

Objective 3: Streamline Cambodia's TB Data Management Information System (TB MIS)

The TB MIS is Cambodia's official information system for recording and reporting TB cases. To facilitate Cambodia's transition to a fully e-TB MIS and eliminate a parallel paper-based reporting system, TB DIAH supported the development of a second curriculum, adapted from the curriculum described under Objective 1, to strengthen the capacity of the OD-level TB M&E supervisors that use the TB MIS. TB DIAH also developed TB M&E protocols to strengthen data quality, developed protocols for data review meetings to streamline the process for data management and sharing for proper allocation of resources, and increased utility and accessibility of data for policy changes.

In addition, TB DIAH provided logistical support to CENAT and its USAID consultant in organizing three workshops to define the TB MIS roadmap to achieve a sustainable and functional TB MIS implemented at all levels of the health system. After the three workshops, the roadmap specified the significant steps, intervention domains, inputs, and milestones to make the TB MIS the national system for

recording and reporting TB data and complete the transition from a paper-based system to an e-TB MIS.

Objective 4: Strengthen Cambodia's OR Capacity

In 2020, CENAT established its CCTBR to create a platform for knowledge sharing and collaboration among TB control and research stakeholders at the national level to improve the OR capacity in the country.

In 2022, CENAT asked TB DIAH to conduct a situational analysis of TB research in Cambodia to support the CCTBR in identifying the barriers, supports, and resources available for TB research in the country. An initial desk review identified several gaps, including the fact that there were fewer studies on TB (16%) than HIV (43%) or malaria (41%) from 2000–2015. TB research was also found to be the most homogeneous in terms of methodology, comprised largely of observational epidemiologic studies (44%) and literature reviews (12%).

Based on these findings, TB DIAH developed research guidelines and a protocol, developed a set of five training modules on conducting OR, and mentored two OR activities by CENAT researchers in line with the capacity-strengthening plan. As a result, the CENAT researchers produced two manuscripts for future publication in peer-reviewed journals.

Key Learnings

Cambodia's mixed paper and electronic system for recording and reporting TB surveillance data limited sharing of the data both locally and nationally. Recognizing this, TB DIAH worked with CENAT to increase the sharing of quality local data by developing the health facility-based dashboard. To ensure that data quality measures are applied when sharing data at the OD, provincial, and national level, TB DIAH developed the DQR Toolkit specifically for the ODs. The project trained TB M&E supervisors working at national and subnational levels by assessing their capacity using the online tool as well as their knowledge after the training. The OD-level data review meeting guidelines and toolkit helped ensure that the performance indicators reported from the health facility are of high quality and shared locally, and issues that arise are resolved locally with quarterly follow-up for improved performance.

Key Achievements

To strengthen the TB M&E capacity for CENAT staff and the TB M&E staff at national and subnational level, TB DIAH developed and implemented a Capacity Assessment Tool and created both an in-person and online TB M&E training curriculum guided by the findings of that assessment. TB DIAH also supported the development of a TB M&E curriculum for provincial-level TB program supervisors in partnership with CENAT and local IPs, coordinated a ToT to facilitate and roll out the curriculum at the national level, and developed a suite of resources and systems strengthening supports (including data dashboards and data review meeting guidelines) to strengthen Cambodia's TB M&E capacity from the national to the health facility level.

In support of Cambodia's NSP, TB DIAH facilitated the development of a national TB M&E plan, including the generation of an initial draft. They co-hosted a finalization workshop with CENAT and other key stakeholders, and spearheaded national dissemination of the completed document.

To streamline Cambodia's TB MIS, TB DIAH adapted its national-level TB M&E capacity strengthening curriculum for use by OD-level TB M&E supervisors that use the TB MIS. They also developed TB M&E protocols to strengthen data quality, including establishing guidelines for DQR meetings, and provided logistical support to workshops led by CENAT, the MOH, and USAID that established the roadmap to achieve a fully e-TB MIS.

Finally, to strengthen Cambodia's OR capacity, TB DIAH completed a situational analysis to identify areas of strength and for growth in TB research in Cambodia and conducted the research necessary to develop OR guidelines and a capacity strengthening plan for CENAT staff, resulting in two draft manuscripts developed by CENAT staff.

Democratic Republic of Congo

Dates of TB DIAH Activities: *May 2021 to March 2024*

Partners and Stakeholders: *PNLT, POSAF, USAID/DRC Mission, University of Kinshasa School of Public Health; STAR and Long-Term Exceptional Assistance Project (LEAP) advisors; USAID IPs in TB (LON organizations, FHI360.)*

In 2021, TB DIAH undertook a scoping visit with the USAID/DRC Mission and the DRC's PNLT (the NTP of the DRC) to conduct a gap analysis of the country's TB system. This analysis found that data quality, timeliness, inconsistency, and inaccuracy were among the major challenges facing the PNLT. This analysis also found that there were technical questions regarding the drivers of TB in the DRC that could not be answered using the routinely collected data. These issues were found to negatively impact efficient resource use and program planning, resulting in insufficient or inappropriate service offerings and a lack of clarity on the impact of programming.

To better understand the issues in the TB system and their drivers, and as part of the project's continuous engagement strategy with country stakeholders, TB DIAH completed an in-depth situational analysis. This analysis included a second round of interviews with an expanded pool of respondents, including key members of PNLT and major stakeholders of the DRC's TB system.

As a result of these assessments, TB DIAH and its partners identified three objectives for the activity's work with the DRC: 1) develop curricula and execute trainings to strengthen TB M&E skill strengthening for PNLT staff at the national and provincial levels; 2) complete an assessment of the quality of TB programming provided by the PNLT; and 3) support the development of national guidelines for OR and provide technical, logistical, and financial support to subsequent studies.

Key Activities

To address its first objective of supporting TB M&E skill strengthening in the DRC, TB DIAH worked closely with the PNLT, USAID, and local partners to develop a national TB M&E training curriculum tailored to the findings of the situational analysis. In August 2022, TB DIAH organized and conducted a

national ToT. Next, TB DIAH customized the national training curriculum for use at the provincial level, and starting in October 2022, TB DIAH and the PNLT, in collaboration with provincial PNLT TB teams, began leading a series of downstream trainings in TB M&E for provincial, zone, and health facility staff. By the end of 2023, at least 20 staff in each of the nine USAID-supported provinces had completed the training.

Concurrently, TB DIAH completed a QTSA to evaluate the quality of TB prevention, diagnosis, and treatment services implemented by the PNLT. Beginning in 2021, over 200 facilities were selected from nine USAID-supported provinces to participate in the QTSA. From these, over 400 health facility TB staff, and almost 500 individuals with TB receiving care at these facilities were surveyed. Community health actors were surveyed to provide insights on the structure, process, and outcomes of TB service delivery. Data were collected from the study facilities using five tools developed for the QTSA: Facility Audit, Provider Interview, Patient Interview, Community Actor Interview, and Register Review. Additionally, the PNLT requested a DQR to assess and identify areas for improvement in the country's TB data. The findings informed the TA provided by the project throughout the period of this activity.

Finally, in 2023, TB DIAH tackled its third objective, to address the identified issue of inadequate or insufficient data to inform its TB programming, by working with the PNLT and TB DIAH to develop national guidelines for conducting OR in the DRC. TB DIAH coordinated a meeting with the PNLT, USAID, and local partners to develop a guide for conducting TB OR in the DRC and then organized and facilitated a workshop attended by approximately 20 PNLT staff and other local partners to review and validate the guide and develop an OR plan for the PNLT.

With support from TB DIAH, the trainees used these guidelines to launch three OR projects in two provinces prioritized for their high mortality rates among individuals with TB. These studies focused on topics identified as part of the DRC's priority research agenda during the guideline development process, including:

- A small descriptive analysis of "factors related to the mortality of TB patients on treatment" in one province.
- A larger-scale analytic study, conducted in a different province, also focused on examining the factors contributing to TB mortality.
- A third study focused on the prevalence and risk factors related to pulmonary TB among artisanal miners, conducted in 15 mining sites across a single province.

Key Learnings

- The initial investment of time and resources in the gap and situational analyses conducted at the start of the activity and through the QTSA process were essential to its ultimate success. The resultant trainings and guidelines address the major gaps and shared priorities of stakeholders across all levels of the TB system, helping ensure their broad acceptance and future sustainability.
- Bringing training participants together from different provinces, different levels of the PNLT, and different elements of the health system generated opportunities for attendee learning and knowledge sharing.

- Capacity building following a systematic approach, including the collaborative development of guidelines, technical capacity building, as well as practical implementation of the learned skill, helped ingrain the learnings into the PNLT system and contribute to the future sustainability of the new practices.
- Most of the capacity strengthening activities for OR were led by experts from the School of Public Health at the University of Kinshasha. This intersectoral collaboration was fundamental to the success of the entire process.

Key Achievements

Key achievements included a national TB M&E training curriculum and tailored provincial curricula used to conduct ToTs for staff from the national, provincial, zone, and health facility levels; a DRC QTSA report; a Data Quality Review report; staff trained on the newly-developed national OR guidelines; and three completed OR studies to inform future TB programming.

"This guide on TB operational research is a valuable document for managers and service providers in the DRC who will be able to use it to identify the various problems related to the functioning and quality of service and to respond with the remedies that result from the operational research. This evidence-based approach can help readjust approaches to TB control in the DRC. Increasing the critical mass of providers using OR in their practices is an important asset for the NTCP to eliminate TB by 2030."

~ Professor Batumbo Doudou
Professor of Public Health, School of Public Health, University of Kinshasha

"This training really appealed to me. We were well supported with primary skills, with data management skills in the fight against tuberculosis; with everything that TB DIAH had left to enable us. We even went to provinces to train. So this training, apart from the slides that we adapted, was an opportunity for us to also recreate what we were taught.

But we also quickly realized that the needs were there. Most of the people trained in the past have left. Those who joined the program had never benefited from this training. As a result, we felt challenged that we really need to support these young people. The training needs were there, and TB DIAH support came on the right time."

~ Dr. Gertrude Lay
TB M&E Unit Head, PNLT

"Before this study, when talking about TB deaths, the statement was as simple as 'At least 13 TB patients die every day.' That's all. Now, we can pinpoint the causes accurately because we have the data to do so. We now know that, among the tuberculosis patients who die in the DRC, there are as many who die from HIV co-infection, as many who die from diabetes in addition to tuberculosis, others from pneumonitis in addition to tuberculosis, and still others from clinical deterioration, etc. Moreover, this data allows us to have the different percentages related to these causes.

In addition, thanks to the protocol we now have, we will be able to conduct similar studies in other provinces, especially those where the mortality rate of people suffering from tuberculosis is particularly high. With the support of USAID, which supports operational research in the DRC, we are confident that, in two or three years, we will be able to conduct this study, if not all of it, in a minimum of 75% of the country's provinces. It should also be highlighted that, now that the study is being conducted, the DRC through the PNLT, can now publish on the subject and clarify international opinion on this."

~ Dr. Mbuyi Stéphane
Operational Research Officer, Monitoring and Evaluation Division, PNLT

Eastern Europe and Eurasia (EEE)

Dates of TB DIAH Activities: *July 2021 to November 2024*

Partners and Stakeholders: *NCDC in Georgia, NCTLD in Georgia, and WHO Europe, Global Fund; Stop TB Partnership; National Center for Pulmonology of the MoH of Republic of Armenia; National Center of Phthisiology of the MoH of Kyrgyz Republic; Kyrgyz Republic NTP; Kazakhstan NTP; Institute of Phthisiopneumology «Chiril Draganiuc» in Moldova; Moldova MoH; Center for Health Policies and Studies (PAS Center) in Moldova; Tajikistan MoH; Armenia MoH; Ukraine MoH; Uzbekistan MoH; Administration of the Regional Medical Divisions (TABİB) in Azerbaijan; Tajikistan NTP; Turkmenistan NTP; and the USAID Missions in Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan*

TB DIAH's EEE portfolio focused on IR 1: Strengthened collection, analysis, and use of routine health TB data, and IR 2: Improved design and implementation of M&E frameworks and information-gathering processes. It aimed to achieve these results by focusing on three objectives:

- Support the effective implementation of a regional COE to strengthen the M&E capacity of NTPs and other TB partner staff in data management, collection, quality, analysis, and visualization, and promote ownership and use of the TB surveillance system.
- Analyze the current TB M&E and surveillance systems in the five EEE region countries (Armenia, Azerbaijan, Georgia, Moldova, and Ukraine) in collaboration with NTPs and other key stakeholders to identify bottlenecks, categorize areas requiring attention, and develop a roadmap/action plan for improvements.
- Improve the use of TB data for decision making through robust data analytics around program performance, resource allocation, procurement, and supply management, and for advocacy at all levels of the health system.

TB DIAH achieved these objectives through three workstreams:

- Workstream 1: Establish and support a regional COE in TB M&E.
- Workstream 2: Assess the TB M&E and surveillance systems in the region and help strengthen the systems.
- Workstream 3: Improve TB data use.

Key Activities

TB DIAH's approach in the EEE region centered on a COE model as a means of providing TA. The COE was founded in Tbilisi, Georgia in May 2022 after an extensive selection process. The NCDC and NCTLD led the COE's efforts to improve and harness existing TB data, expand knowledge sharing, and promote best practices in TB M&E and surveillance in the EEE region.

To catalyze country engagement in COE activities and discuss country-specific M&E and surveillance systems, TB DIAH conducted a series of consultative meetings, kicked off with a Regional Consultative Meeting in Georgia in July 2022. National-level consultative meetings were held in Armenia, Azerbaijan, Georgia, and Moldova.

The COE hosted two regional workshops on TB M&E and Surveillance Capacity Strengthening (November 2022 and October 2023) with the five EEE countries, five additional CA countries, WHO/Europe, and other partners (Global Fund and Stop TB Partnership). The workshops laid a solid foundation for introducing the PBMEF and improving TB data collection, analysis, and use. They strengthened the grounds for intercountry collaboration through the COE and were an important step toward strengthening the M&E and surveillance capacity in the region.

Through the COE, TB DIAH developed a regional TB M&E training curriculum in English and Russian and conducted a one-week Regional ToT in TB M&E with the five EEE countries. TB DIAH supported Armenia and Georgia's national-level step-down trainings.

A COE website was launched as a repository for COE information and resources. One of the main features of the COE website is MELVIN. MELVIN is an AI chatbot aimed at expanding M&E knowledge and enhancing learning experiences in TB. It represents TB DIAH's vision to harness the power of emerging technology to help professionals navigate to relevant resources and information.

TB DIAH provided dedicated support to Georgia and Armenia to assess their TB MIS. With the findings and recommendations, they can improve their systems and data collection processes.

A regional TWG in TB M&E was established. Detailed terms of reference were developed as well as a script (in English and Russian) for how to conduct the first TWG, which will be held with WHO's engagement.

TB DIAH supported Georgia in developing its first national TB M&E plan.

Assessments were conducted in the region with TB DIAH tools. The ARC tool was implemented in the five EEE countries as was the MESSA. TB DIAH also wrote a brief synthesizing the regional TB M&E systems assessments.

TB DIAH also supported the dissemination of COE findings through success stories, a COE poster presentation and NCDC and NCTLD participation at Union Lung Health conferences, and country-level events, such as World TB Day.

Key Learnings

- The COE was an effective strategy to set the stage for countries to come together and support each other to address common health issues through a spirit of collaboration, sharing, and partnership.
- The COE model empowered countries to solve their problems by themselves, provided the opportunity for local capacity strengthening and national ownership, and established a solid foundation for sustainability.
- Capitalizing on technology and using digital platforms made operationalizing the COE and organizing multicounty events virtually with minimal logistic and financial support feasible.
- The geopolitical environment in a region can disrupt even the most perfect work plans. The war in Ukraine, ongoing ethnic and territorial conflict between Armenia and Azerbaijan, and divisive political situation in Georgia created challenges for TB DIAH and required flexibility, creativity, a sound understanding of the setting, and ongoing communication with USAID.

Key Achievements

- The fully functional COE, handed over to WHO/Europe.
- The COE website, including MELVIN, the AI chatbot that offers personalized learning
- Regional training curriculum (in English and Russian) for TB M&E and national TB M&E curricula for Armenia and Georgia.
- An ARC and MESSA report for the five EEE countries and a brief synthesizing the findings.
- Terms of reference for the regional TWG and script (in Russian and English) for the introductory TWG meeting.
- The national TB M&E plan for Georgia.
- Slide decks (in English and Russian) and reports from three regional meetings: the Consultative Meeting in 2022, the Eastern Europe and Central Asia Regional Training in TB M&E and Surveillance Capacity Strengthening for NTPs in 2022, and the Eastern Europe and Central Asia Regional Conference on TB Data Reporting, Analysis, and Use in 2023.

Figure 26: Participants working together at a Center of Excellence regional training for Eastern Europe and Eurasia. Photo credit: TB DIAH

Kyrgyz Republic TB and Global Health Security (GHS) Activities

Dates of TB DIAH Activities: February 2021 to September 2024

TB Partners and Stakeholders: *MOH, National Center of Phthisiology (NCPh), Department of Disease Prevention and State Sanitary and Epidemiological Surveillance (DDPSSES), UNDP/Global Fund, Republican Center for Control of Bloodborne Viral Hepatitis and Human Immunodeficiency Virus), USAID TB projects, USAID/KR*

GHS Partners and Stakeholders: *FHI360, CDC, WHO, FAO, Internews, Center of Disease Prevention and State Sanitary and Epidemiological Surveillance, DDPSSES, USAID/KR*

In 2021, USAID invited TB DIAH to work with the Kyrgyz Republic's NTP to help reduce significant barriers to the collection and use of patient- and provider-level TB data as the NTP was in the final stages of transitioning from a paper-based system to electronic surveillance of TB and patient management systems. These barriers led to delays in recognizing TB outbreaks, as well as impeded contact tracing efforts and the proper allocation of resources to regions in need.

This activity, implemented in collaboration with the USAID Mission in the Kyrgyz Republic and relevant IPs, aimed to develop the TB surveillance system, improve data use, build capacity to report on the country's TB roadmap indicators, and strengthen M&E skills of the Kyrgyz Republic's NTP and USAID IPs. Moreover, it sought to increase the accessibility and availability of the Kyrgyz Republic's online TB data resources.

In 2023, the Kyrgyz Republic was named one of USAID's GHS intensive support countries. As a GHS intensive support country, and with the collective effort of the government of the Kyrgyz Republic and the GHS partners (e.g., TB DIAH, WHO, FAO, EPiC/ FHI 360, and CDC), the country is expected to achieve demonstrated capacity (i.e., Joint External Evaluation level 4 or above) in five priority technical areas by the end of 2025. TB DIAH was asked to assess the Kyrgyz Republic's integrated

digital surveillance information system (known as IEPID IS) in order to document how the system is working, identify gaps that will assist planning for improvements to the system within a One Health framework, and to strengthen the capacity of DDPSSES/MOH staff nationwide to analyze, use, and disseminate surveillance and M&E data.

Key Objectives

TB Program (2021–2024)

- Improve the capacity of the NTP and stakeholders to develop TB surveillance systems and data.
- Improve the capacities of USAID implementing and national partners to collect quality data, report on the 10 Core indicators in the PBMEF under the TB Roadmap and associated targets, and assist with the rollout of other PBMEF indicators. Also, assist the NTP DDPSSES to use and report other PBMEF indicators.
- Increase the accessibility and availability of the Kyrgyz Republic's online TB data resources to enable people to use TB data for decision making.
- Facilitate the NTP policy and/or practice based on the results of the bacteriological coverage study. TB DIAH, in collaboration with the NCPh, conducted this study to identify factors associated with a higher proportion of clinically diagnosed TB cases and to assess the ability of the Kyrgyz Republic's NTP to accurately diagnose pulmonary TB in accordance with the four-part national diagnostic algorithm.

GHS: 2023–2024

- GHS1: Support the DDPSSES/MOH to strengthen the Kyrgyz Republic's national surveillance system within the One Health framework.
- GHS 2: Strengthening the capacity of DDPSSES/MOH staff at national and subnational levels to analyze, use, and disseminate surveillance and M&E data.

Key Learnings

The main lessons learned from TB DIAH TB activities in the Kyrgyz Republic include:

- Move at the pace of the NTP. A strong NTP point-of-contact smooths coordination between the different partners and helps them address their own expectations, properly apply their expertise and resources, and avoid duplicative efforts. It also facilitates planning and communication for obtaining official approvals.
- The country health agencies (including the MOH and NTP) were not aware of the PBMEF and indicators. They mistakenly believed that it was a TB DIAH project framework, rather than a USAID framework. It was crucial to provide detailed explanations to the country's stakeholders in order to ensure the adoption of the PBMEF indicators.
- Different IPs were responsible for the NSP, which impacted TB DIAH's ability to develop the TB M&E plan. Being flexible, proactive, and prepared to make any necessary changes and updates to the project activities was important.
- The TB M&E TWG provided an important forum to discuss key topics and promoted collaboration and joint decision making.

The main lessons learned from TB DIAH GHS activities in the Kyrgyz Republic were:

- Regular GHS partner meetings coordinated by the Mission's GHS coordinator were a model for effective communication and collaboration between partners.
- The DDPSSES is eager to collaborate with other partners to continue to conduct routine epidemiological data review meetings but does not have the budget to support these meetings.
- The IEPID IS is comprehensive and allows for real-time tracking of notifiable infectious and parasitic diseases. The biggest barriers to use are insufficient training, power outages, and internet disruptions. Additionally, few users know how to use the advanced features, and it is important that DDPSSES epidemiologists are mentored in comparative and trend analyses and calculating disease prevalence and incidence.
- Embedding the curriculum into established training curricula guarantees sustainability. Training content on IEPID has been incorporated into the annual epidemiologists' training curriculum. This mandatory five-day course, which grants credit hours, will now include a dedicated day for improving IEPID knowledge.

Key TB Achievements

National TB M&E Plan and Guidelines

In 2022, TB DIAH developed a national TB M&E plan, working with the NTP to set targets at the national and subnational level to achieve its goals and end TB in the Kyrgyz Republic. Over the next two years TB DIAH also supported the development of National TB M&E Guidelines in collaboration with key national stakeholders. These guidelines provide a detailed operations map for the NTP and were approved in June 2024 following Ministry of Health (MOH) review and approval.

To support use of these resources, TB DIAH led capacity strengthening of TB M&E staff at the oblast and rayon level by conducting skills assessments and various trainings, including ToTs and training for the State Epidemiological Services Department. Additionally, TB DIAH developed a data quality assurance tool (data quality supervisory checklist) to support the use of TB data and conducted training on this topic. A customized annual reporting template for TB performance review meetings was also developed and is in use.

ARC Assessment and STEP Process Development

To improve the capacity of USAID implementing and national partners to collect quality data, report on the 10 Core indicators in the PBMEF under the TB Roadmap and associated targets, and assist with the rollout of other PBMEF indicators**,** TB DIAH conducted an ARC assessment and developed a report that was shared with the NTP and Mission. As a result of the ARC, TB DIAH developed the STEP process, conducted a STEP assessment, developed a report, and formulated a costed plan. TB DIAH was also asked to support the SES department to increase staff knowledge on key aspects of TB surveillance and enhance their knowledge on M&E for TB programs.

National and Subnational TB Data Dashboards

To increase the accessibility and availability of the Kyrgyz Republic's online TB data resources to enable their use for decision making**,** TB DIAH developed national and subnational dashboards featuring key TB performance indicators. Moreover, TB DIAH conducted training for TB M&E staff to familiarize them with the national and subnational dashboards. TB DIAH also prepared a report with recommendations to align the transparency benchmarks outlined in the Stop TB report with the Kyrgyz Republic NTP website.

Key GHS Achievements

Surveillance and M&E Capacity Assessment Tool, Presentation, and Report

The Surveillance and M&E Capacity Assessment Tool was developed in close collaboration with the DDPSSES. The assessment questions cover a range of topics, including general knowledge of disease surveillance, disease notification and reporting, and how to use the IEPID IS and a self-assessment of respondent competency to perform various M&E-related tasks. The Surveillance and M&E Capacity Assessment report, which details the methodology, results, and recommendations from the assessment, provides valuable insights into the current knowledge and practices of epidemiologists and assistant epidemiologists in the Kyrgyz Republic.

IEPID IS Assessment Tool, Presentation, and Report

The IEPID IS Assessment tool was developed in close collaboration with the DDPSSES. It includes closed- and open-ended questions and observation-based questions related to general knowledge of the IEPID IS; IEPID IS accessibility, functionality, and challenges; and system use observation. Versions were adapted for specific system users, such as physicians, registrars, and epidemiologists. The IEPID IS Assessment report details the methodology, results, and recommendations from the assessment. The assessment validates that the IEPID IS is a valuable tool for infectious and parasitic disease surveillance in the Kyrgyz Republic, but increased training and guidance is needed.

"Our partners have shown great interest in these assessment results, and the evaluation results will support future funding requests. I hope that with reliable data backing our requests, donors will continue to support the department. "

~ Dinakul Otorbaeva, Head of the Department of Prevention of Infectious, Parasitic Diseases and Surveillance of the DDPSSES

Epidemiological Data Review Meeting Guidelines

TB DIAH has developed Standard Operating Procedures (SOPs) for the DDPSSES to conduct epidemiological data review meetings and establish the practice of conducting routine data review meetings.

Seminar Curriculum on "Improving the quality of epidemiological data in the IEPID IS with regular monitoring and evaluation"

TB DIAH developed a three-day seminar curriculum titled "Improving the quality of epidemiological data in IEPID with regular monitoring and evaluation" in collaboration with the DDPSSES after jointly reviewing the findings from both the Surveillance and M&E Capacity Assessment and the IEPID IS Assessment. Based on the identified gap areas, it focused on ensuring data quality and analyzing, interpreting, and visualizing the data and results in the IEPID IS.

Nigeria

Dates of TB DIAH Activities: December 2020 to September 2024

Partners and Stakeholders: NTBLCP, State Tuberculosis and Leprosy Control Programme (STBLCP), World Health Organization Country Office in Nigeria, IHVN, KNCV, STOP TB Partnership, Breakthrough Action Nigeria, Data.FI, and USAID Mission Health Office

USAID Nigeria's Health Office and Nigeria's NTBLCP asked TB DIAH to provide technical support to improve the capacity of the NTBLCP's national and facility-level staff and of USAID TB IPs to analyze, report, and use TB data in a coordinated manner across the healthcare system. The project was also asked to help the NTBLCP streamline data management processes, establish an interactive dashboard, and enhance TB surveillance systems and data-driven programs in Nigeria.

TB DIAH's work to achieve these objectives fell into four areas: 1) strengthening the national and subnational levels of Nigeria's TB M&E system; 2) improving reporting of and access to robust and timely TB data for decision making at all levels; 3) improving the use of TB data for decision making through robust data analytics; and 4) strengthening the M&E capacity and promoting ownership and use of the TB surveillance system among state-level M&E staff, Local Government Area (LGA) staff involved in TB intervention, and facility staff in data management, quality, and visualization.

Key Activities

Objective 1: Strengthening the National and Subnational Levels of Nigeria's TB M&E System

TB DIAH began its work in Nigeria in 2020, supporting the NTBLCP to conduct the National Electronic Tuberculosis Information Management System (NETIMS) assessment. The NETIMS assessment report identified opportunities for streamlining and strengthening Nigeria's TB M&E electronic management and recommended action points to improve the functionality of NETIMS.

Based on these findings, NTBLCP and stakeholders created a roadmap and investment plan to establish an electronic data management and surveillance system that generates quality and timely reports and facilitates the transition from a paper-based system to a fully e-TB MIS. Changes in priorities limited the use of the findings and suggested recommendations. Both the technical reports of NETIMS and the D2AC are available for use and learning by anyone who wishes to run the same evaluations.

Also in 2021, TB DIAH began collaboration with the NTBLCP to relaunch its website, which had been non-functional for several years. The new website (https://www.ntblcp.org.ng), launched in 2023, meets the Stop TB Partnership's five major transparency indicator metrics and houses key program and policy documents, historical data, program activities, and other important program information. It has increased the program's visibility and makes its plans, activities, and relevant documents accessible to stakeholders.

Objective 2: Improve Reporting of and Access to Robust and Timely TB Data for Decision Making at All Levels

Beginning in 2022, TB DIAH worked with the NTBLCP and its subnational counterparts to launch or revamp TBSRs:one at the national (NTBLCP) level and four at the state level. TBSRs assist decision makers and implementers by providing easy-to-understand visualization of and access to TB data from various sources (such as electronic medical records [EMRs], program data, diagnostics and laboratory data, and drugs and supplies) in one place, as well as allowing for the review, analysis, and interpretation in as close to real time as possible. The TBSRs are now used for virtual and physical data reviews and program planning meetings and allow for the real-time monitoring of participant enrollment in an ongoing national TB drug resistance survey. During National Testing Week activities, states used them to monitor and review local data and provide real-time feedback and adaptations. The NTBLCP has used enhanced interactive and visual data to identify gaps in TB case notification and diagnostics, enabling responsive strategies and interventions and increased collaboration and partnerships among stakeholders.

TB DIAH also pioneered the development of the TB-specific APPR, an innovative, technology-enhanced approach to improving data management among USAID and its TB partners. When TB DIAH was first engaged by the Mission, USAID was already using an APPR to collect data on other health topics, such as HIV and orphans and vulnerable children. TB DIAH worked with the Mission and USAID

Nigeria GeneXpert

The TB DIAH team, in collaboration with USAID/Nigeria, created "The GeneXpert Failed Modules Resolution Tracker." This tool was created to regularly track attempts made to fix malfunctioning GeneXpert modules, with the goal of improving system efficiency and accountability at TB LON-supported facilities as well as ensuring standardized reporting at the program level. The tool helps improve system efficiency, minimize downtime, and enhance accountability in managing and resolving module failures. By documenting maintenance actions and module replacements on a monthly basis, the tool provides valuable insights for system optimization and resource allocation.

Nigeria LONs KNCV and IHVN now use the GeneXpert Failed Module Resolution Tracker to identify and resolve issues with GeneXpert modules across 18 states in Nigeria. The organizations enter data in a web-based data collection tool which is then transcribed into Excel. The resulting dashboards are presented in biweekly performance review meetings. The tool was officially rolled out and used to generate the May 2023 report.

In addition to standardizing the reporting of efforts toward resolution of malfunctioning GeneXpert modules, the routine use of the tracker has significantly improved the availability and quality of data related to efforts to fix faulty modules. By systematically capturing data in near real time and incorporating validation rules, the tracker has increased the availability of data for computing key performance indicators about the resolution of malfunctioning GeneXpert modules, as well as the completeness, accuracy, and timeliness of these data. This has resulted in better-informed decision making and faster response times to fix faulty modules, ensuring that TB diagnostic services for case finding are less frequently interrupted. As a result, the GeneXpert tracker has improved module management while also strengthening TB M&E and surveillance, resulting in a more responsive and successful TB program.

to customize the TB APPR platform to showcase TB data on the Mission's dashboard and to serve as a data repository for USAID-funded TB programs in the country.

Additionally, TB DIAH worked with the IPs to develop a customized DHIS2[2] platform for the two TB LON partners and integrated the platforms into USAID's TB APPR to facilitate TB data collection from the Mission's TB LON partners across 18 states, ensuring alignment with the USAID Global Accelerator and the PBMEF. This process involved creating and adding a TB-specific module to existing USAID's APPR to collate and report TB data from the TB LON USAID IPs, marking a significant milestone in developing and customizing DHIS2 platforms for TB reporting in Nigeria.

On a monthly and quarterly basis, the TB DIAH team conducted data review and analysis to ensure quality and provide feedback to the LON partners. The analysis entailed initial data cleaning to identify gaps (including missing data elements), errors (misclassification), and outliers, which were rectified before further analysis was carried out. Once the data was judged to be of good quality, the analysis generated custom charts and displays on the APPR dashboard and Comprehensive Access Review Dashboard (CARD) platform. In-depth analysis was conducted monthly and quarterly to demonstrate project performance, efficiency of interventions using consensus benchmarks, and deep dive analysis to highlight areas needing improvement. TB DIAH also created dynamic interactive dashboards for the TB APPR data to facilitate data visualization as it gets

[2] DHIS2: DHIS2 is a web-based health management information system (HMIS) used to store, manage and monitor patient health data, support disease surveillance, map disease outbreaks, and enable digital access to health data for health facilities and government organizations. DHIS2 supports both aggregate and patient-level data.

exchanged, cleansed, and transformed on the platform.

In addition, TB DIAH's team organized bootcamp meetings to provide TA for the smooth operation of the regular biweekly performance review meetings, with support and guidance from USAID/Nigeria, to improve tracking of progress toward annual targets for priority indicators. These sessions supported accountability and alignment of efforts, and drove a proactive approach to the TB monitoring, evaluating, and steering progress. During the bootcamp sessions, TB DIAH collaborated with USAID/Nigeria and other partners to develop a benchmarking system for TB care cascades to optimize appraisal of program or intervention efficiency. Furthermore, quarterly TB data review meetings with USAID/Nigeria and its partners analyzed APPR data to assess program performance and identify areas of strength or needing additional focus and support.

Objective 3: Improve the Use of TB Data for Decision Making through Robust Data Analytics around Program Performance, Resource Allocation, Procurement, and Supply Management and for Advocacy at State, LGA, Facility, and Community Levels

TB DIAH conducted a training needs assessment to identify gaps in the skills and knowledge of potential trainees on the TB surveillance, monitoring, and evaluation system. The assessment was conducted by TB DIAH in collaboration with the NTBLCP between March and April 2022. After conducting a training needs assessment of and a desk review of existing M&E curricula available and other relevant documents, TB DIAH worked with the NTBLCP to develop a training curriculum and facilitator's guide on TB M&E and surveillance. Together, TB DIAH and the NTBLCP used this curriculum to conduct an intensive five-day residential training workshop for tuberculosis and leprosy (TBL) program managers and M&E officers from Nigeria's 36 states plus the Federal Capital Territory. The training focused on building the participant's capacity to develop their data into the data frame format to enable routine analysis, investigation, and visualization. Furthermore, LGTBLS from Akwa Ibom, Kano, and Osun states received training to strengthen their knowledge and skills in data collection, management, and use, as well as the overall surveillance system in these states.

TB DIAH also supported the NTBLCP to customize its training curriculum and training manual to include TB surveillance, monitoring, and evaluation. The National Tuberculosis and Leprosy Training Center is the human resource development arm of the NTBLCP, charged with training staff for the NTBLCP with a vision of transforming into an international public health institute. Periodically, the training center organizes in-service courses for LGTBLS, state TBL program managers, and other program staff. The TB DIAH-supported curriculum customization enabled facilitators to consistently deliver high-quality training in TB SME to LGA and state-level staff, strengthening their capacity to conduct data collection, data processing, and ability to use data, and in turn, strengthened the NTBLCP's M&E and surveillance system, including its ability to track and evaluate TB initiatives.

Finally, TB DIAH and the NTBLCP developed an integrated supportive supervisory (SSV) tool to reflect advancements in Nigeria's TB program, which rendered some sections of the existing SSV checklist obsolete and non-responsive to the program needs. The SSV is used by the NTBLCP and its subnational counterparts, as well as the developmental partners and IPs, to monitor and identify gaps in TB program implementation and suggest corrective actions. In addition to updating the SSV to reflect recent NTBLCP advancements, TB DIAH ensured that the new SSV supported the TB program's

and IPs' capacity to identify implementation gaps, as well as the implementation of the action plan, which outlines the interventions that would address the weaknesses identified during each visit.

Objective 4: Strengthen the M&E Capacity of State Level M&E Staff, LGA Staff Involved in TB Interventions, and Facility Staff Working in Key Areas of TB M&E Such as Data Management, Data Quality and Data Visualization, and Promote Ownership and Use of the TB Surveillance System

TB DIAH conducted quarterly coaching and mentoring (C&M) visits to six of TB DIAH's priority states to assist in strengthening their M&E and surveillance systems. The project developed a tool to assess the states' capacity in six domains, and action plans were developed based on the results. A targeted C&M exercise was conducted to strengthen data-driven decision making and improve data quality. The project team also supported the state TB program team in developing an Excel-based interactive dashboard to show the performance of LGAs across key TB program areas. This activity enhanced data quality, data use, data-driven programming, objective assessment, and served as an advocacy tool for resource optimization and mobilization.

TB DIAH technical staff provided a variety of other technical support and assistance to the NTBLCP throughout the project's life span, both routinely as well as on request. For example, TB DIAH set a precedent for future National TB Testing Weeks. During the National TB Testing Week in 2023, the team created user-friendly tools and dashboards, as well as facilitation of data review meetings during the week, to enhance the NTBLCP's data collection, reporting, and analysis processes.

Additional Efforts

In addition to its work strengthening TB SME within Nigeria, TB DIAH contributed to the global understanding of TB SME best practices through presentations at several high-profile international events. These included:

1. February 2023: Presentation of the APPR to USAID's TB Data SIG, providing an avenue to share experiences on the implementation of the TB APPR and shared lessons learned.
2. June 2023: African Digital Health Summit. The 3rd African Digital Health Summit, held in Lagos, Nigeria, brought together stakeholders from 15 African countries and partners from around the world to discuss advancements in digital health. TB DIAH presented its challenges and successes with the digitization of TB data through a presentation on the APPR, as well as "Digitization and Data Use: Using a TB Situation Room in Nigeria for Real-Time Decision Making."
3. November 2023: International Union Against Tuberculosis and Lung Diseases World Conference on Lung Health. The Union Conference, held in Paris, France, is the premier annual global meeting of TB program implementers, policy makers, donors, and other key stakeholders. TB DIAH gave an oral presentation on data exchange and interoperability, which ensures the sharing of data and information across several platforms via health information exchange protocols. The presentation included "Interoperability and Data Exchange: Experience with TB Data Quality in Nigeria," as well as a poster on the APPR.
4. April 2024: Africa Regional Workshop on Strengthening TB M&E Systems. USAID hosted this workshop for attendees from 11 USAID TB priority countries to support the rollout of the PBMEF

and improve country-level TB M&E. TB DIAH's Nigeria staff shared their experience in M&E and systems strengthening, the implementation of the TBSR in Nigeria, the development of a curriculum for the capacity building of the LGTBLS in selected states, and the lesson learned during C&M.

Key Learnings

- Improving data quality and program performance is an intentional and iterative process.
- Creating active platforms for data and program performance reviews efficiently improves data quality and overall data management, including motivating stakeholders to improve.
- The various data visualization platforms allow for peer review and knowledge sharing.

Republic of Uzbekistan

Dates of TB DIAH Activity: November 2023 to September 2024

Partners and Stakeholders: MOH of the Republic of Uzbekistan, Republican Specialized Scientific-Practical Medical Center of Phthisiology and Pulmonology (RSSPMCPP), USAID Mission in Uzbekistan, USAID-funded LEAP advisor, USAID-funded TB Free Uzbekistan Project, USAID-funded Tuberculosis Implementation Framework Agreement, USAID Mission to the Republic of Uzbekistan

The PBMEF was designed to support USAID's Global Accelerator to End TB's goal of increasing the use of routine and non-routine data to address need and to help with the standardization, analysis, and use of information across USAID TB priority countries. In Uzbekistan, the USAID Mission requested TA from TB DIAH to strengthen the RSSPMCPP's capacity to gather and report TB data, using Core PBMEF and WHO indicator data as the foundation for reporting.

TB DIAH collaborated with USAID/Uzbekistan, the RSSPMCPP, and IPs to provide TA to the RSSPMCPP to 1) assess the country's TB data gathering, reporting, and analysis capacity; 2) identify the strengths and gaps in the overall monitoring and surveillance system environment across all levels of the health system; and 3) develop a national TB M&E plan that incorporates Core indicators from the PBMEF and WHO.

Key Activities

Objective 1: Identify the Gaps and Strengths in Uzbekistan's Overall TB M&E Environment in Order to Inform the Development of an M&E Plan for the Country That Includes TB Case and Treatment Outcome Definitions and Aligns Recording and Reporting Forms of the National TB M&E Plan with the PBMEF

Following a thorough desk review and comprehensive field visits, TB DIAH produced the Stakeholder Analysis of TB M&E and Surveillance System in Uzbekistan (March 2024) and the Uzbekistan TB M&E and Surveillance Systems Landscape Analysis (April 2024).

A stakeholder workshop in April 2024 yielded the draft NTP M&E Plan—Republic of Uzbekistan (July 2024), which included a compendium of updated TB case and treatment outcome definitions, recording and reporting forms, and reflected contributions and input from the NTP and other IP experts. The document was translated into Russian before submission to the MOH for approval in 2024.

Objective 2: Improved Capacity of RSSPMCPP to Generate and Report on the NTP, WHO, and PBMEF TB Indicators and Thus Increase the Accountability of Uzbekistan on Progress to End TB

TB DIAH organized a second stakeholder workshop in May 2024 to identify the gaps in Uzbekistan's data use for TB information. The findings and results from this workshop were documented in the TB M&E and Surveillance System Assessment and M&E Prioritization and Action Planning Workshop Report—Uzbekistan (September 2024); the TB D2AC in Uzbekistan (D2AC report) (September 2024), which includes an action plan outlining priorities areas for TB M&E system strengthening; and the updated ARC: Uzbekistan which includes a mapping of the existing gaps on data generation and reporting compared to the standardized PBMEF indicators and of the NTP's TB data use capabilities and TB data needs.

This workshop also informed a concept note, Strengthening the Implementation of the Electronic TB Surveillance System—Uzbekistan (September 2024). The document builds on the landscape analysis, stakeholder analysis, and the D2AC workshop as well as the work carried out by TB DIAH globally to provide guidance on developing TB M&E system strengthening plans. To achieve the goal of nationally implementing interoperable digital health systems for TB in the Republic of Uzbekistan, the concept note proposed activities that address: 1) governance and policy, i.e., the introduction of an integration standards or guidance framework that allows for the communication between systems, the gradual roll-out of case-based and aggregated electronic TB data systems, support for future enhancements of the relevant systems to meet the evolving data needs of the NTP; 2) interoperability, i.e., the harmonization of the multiple electronic information systems; and 3) the transition from paper-based to a fully e-TB MIS.

TB DIAH also developed a TB M&E Landscape Analysis Protocol (July 2024) for Uzbekistan to provide guidance on conducting a TB M&E and surveillance system assessment to a TB M&E and surveillance system strengthening plan.

Key Learnings

The key learning of the Uzbekistan activity was the importance of relationships. The project hired strong consultants based at the RSSPMCPP and had close engagement with a large group of stakeholders and the USAID Mission. This enabled the project to deliver high-quality sequential deliverables and have a strong partnership with the RSSPMCPP and the USAID Mission. The mission strategy of hiring local consultants embedded in NTP was key to the successful completion of all deliverables—they are technically competent and had a deep understanding of the system, and the NTP had trust and confidence in them, which helped make our work acceptable. Engaging with other major IPs and their active contribution to the work helped to achieve broader acceptability of the deliverables (e.g., there was an overlap of 15 participants across our two workshops in April and May).

This resulted in key deliverables amounting to a comprehensive study of the status and ways to improve the TB HIS, TB data quality, and use in Uzbekistan, especially through the practice of translating the deliverables to increase adoption by in-country counterparts.

Key Achievements

Key outputs to support the RSSPMCPP to assess the gaps and strengths in the TB M&E and surveillance system included a concept note focused on strengthening the implementation of the electronic TB surveillance system, a mapping of the existing gaps in data generation and reporting compared to the standardized PBMEF indicators and of the NTP's TB data use capabilities and TB data needs, an action plan outlining priorities areas for TB M&E system strengthening, and a TB M&E and surveillance system assessment protocol. These products were used to develop a good understanding of the TB M&E and surveillance system in the country, identify existing gaps in the system, and implement recommendations and solutions.

Key outputs to support the delivery of a national TB M&E plan included a compendium of updated TB case and treatment outcome definitions, recording and reporting forms, and a draft national TB M&E plan in English and Russian. These outputs enabled the MOH and NTP to track progress toward TB elimination, identify areas needing improvement, and allocate resources efficiently. Additionally, the country was able to measure the burden of TB, ensuring that interventions are data-driven and fostering accountability within programs.

Appendix 4: TB DIAH's Results and Key Learnings

Table 2. Summary of TB DIAH project results

TB DIAH Project Indicators	Results totals through End of Project/Y5	Life of the Project Targets
Output Indicators		
A1. Number of TB Data Hub resources (e.g., reporting tools, templates, and dashboards, etc.) developed/ updated by TB DIAH	29	40
A2. Number of assessments completed by or with support from TB DIAH	243	91
A3. Number of field-funded TB M&E and surveillance strengthening activities (12+ months in length) completed	5	5
A4. Number of Centers of Excellence (COEs) established	1	1
A5. Number of countries that requested support from TB DIAH for PBMEF reporting	10	13
A6. Number of informational products developed or updated by TB DIAH	113	125
A7. Number of tools and guidance documents developed or updated by TB DIAH	96	>74
A8. Number of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support	31	16
A9. Number of dissemination events led or supported by TB DIAH which promote or distribute TB DIAH products and/or services	93	>24
A10. Number of individuals reached through TB DIAH electronic media dissemination of TB information products	3,744 email subscribers 986 social media followers (637 LinkedIn + 349 Twitter)	2000 email subscribers 1000 social media followers
A11. Number of TB Data SIG meetings convened by TB DIAH	29	34
A12. Number of trainings conducted by, or with support of, TB DIAH	62	>40
Outcome Indicators		
B1. Number of countries that utilized a TB Data Hub resource to produce a TB information product or resource (e.g., reports, visualizations, etc.)	24	10

B2. Number of instances of use of post-assessment recommendations by a TB stakeholder following completion of an assessment completed by, or with support from, TB DIAH	145	4
B3. Proportion of field-funded TB M&E and surveillance strengthening activities that result in a demonstrated change in a specific M&E and surveillance practice	80% (4/5)	75% (3/4)
B4. Number of instances of M&E technical support or capacity strengthening provided by a COE to TB stakeholders	7	>2
B5. Number of countries that entered high-quality data on all 10 core PBMEF indicators	10	12
B6. Proportion of informational products developed or updated by TB DIAH used by a TB stakeholder	7.1% (8/113)	10%
B7. Proportion of tools and guidance documents developed or updated by TB DIAH used by a TB stakeholder	9.4% (9/96)	20%
B8. Proportion of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support used by a TB stakeholder	16.1% (5/31)	80%
Impact Indicators		
C1. Number of countries that use TB M&E and surveillance data for TB program and/or policy decision making	2	3
C2. Number of countries that demonstrate a change in the performance of a TB M&E and surveillance system	1	3

Strengths and Limitations of TB DIAH's Project Result Tracking

There are several key considerations when reviewing the strengths and limitations of the results recorded by TB DIAH.

In Year 5, the TB DIAH project MEL Plan was revised and approved by USAID/Washington in February 2024. The changes included the revision or division of existing indicators, addition of output indicators, and revision of indicator targets based on lessons learned in the first four years of the project and to align with changes in project priorities.

Additionally, the Year 5 work plan was approved June 30, 2023 and the core work plan extension was approved August 25, 2024. The extended final year covered more time than a standard project year which likely contributed to higher annual result totals in the project's final year.

In order for a result to be considered "met", the MEL Plan requires documentation of supporting evidence. It's challenging to document or confirm the accuracy. We do anticipate that additional results were met, but the available documentation didn't allow the result to be included in the final project reporting.

As with all projects, it is anticipated that TB DIAH resources will live on beyond the project's end date and there will be instances of use and dissemination outside of we've been able to document to date.

Output Indicators

Over the course of the project, TB DIAH conducted or supported 93 dissemination events, with the majority being in the final year of the project. This is expected, because as assessments and other activities were completed, the project hosted dissemination events to share results or promote tools and other products with stakeholders.

In the initial years of the project, strengthening staff capacity in TB M&E and surveillance at all levels of the health system was identified by system users (not the donor) as important factor in success. A trainings indicator was added to capture the project's investment in trainings, which reached 62 by the end of Year 5, passing the target of >40.

Outcome Indicators

One of the contributions of the TB Data Hub was its tool for generating tables to support the TB Roadmap planning. The project supported collection of TB Roadmap data for three years. In year 4 the TB Data Hub team supported data collection in alternate tools). By Year 5, all 24 USAID TB priority countries used a TB Data Hub tool for at least one year of data entry, surpassing the goal of supporting 10 countries in using the TB Data Hub to generate an information product. All users were USAID.

TB DIAH conducted or supported 243 assessments, surpassing the life-of-project target of 91. Over the 145 instances of recommendations from these assessments being used by TB stakeholders were documented, of which 52 occurred in the final year of the project. The life-of-project target set in the TB DIAH MEL plan was 4. This indicator was revised to capture "post-assessment recommendations," as opposed to "actions plans," which was language that had not been used by project activities to-date and thus was resulting in an undercount of met results. This indicator change enabled the project to capture the contributions of the large number of assessments conducted by the project, many of which had anticipated use cases. The project anticipates that assessments developed or revised by TB DIAH will have additional instances of use following the close of the project.

Originally, the TB DIAH MEL Plan indicator A6 included all products produced by the project, and B6 captured all use cases for these products. The project produced a large number of products, which resulted in an inflated indicator and a depressed proportion of use. In the Year 5 revision of the MEL Plan, the original indicators A6 and B6 were split into three to better reflect the types of products produced by the project: information products, tools and guidance documents, and training materials or curricula. The different types of products have different anticipated levels of use, and ability to document cases of use. For example, tools are anticipated to be more likely used (and tend to be more readily documented when used by a stakeholder) versus an informational product (such as a brief or webpage). However, the 28 instances of the PBMEF being referenced as a guidance document, only counted as 1 reference, rather than 28, in indicator B7, because the indicator addresses proportion of total guidance documents produced and does not capture multiple uses of the same tool.

We anticipated that our e-learning courses would have a very high proportion of use, but the development of the courses took a longer time than anticipated in their original work plans. The large number of project products also limited the project's ability to follow up on one, as follow-up on results instances and collection and verification of documentation is resource intensive. Additionally,

the project anticipates that all information products, but particularly tools, guidance documents, and curricula will have utility beyond the close of the TB DIAH project as they have been made available online and promoted to relevant stakeholders,

Impact Indicators

Impact indicators are the most challenging indicators to document in final reporting as they rarely come to fruition during the life of the project.

Impact indicators seek to measure the downstream effects of the TB M&E and surveillance system strengthening activities of the project. TB DIAH's impact indicators were designed to capture when countries demonstrated use of TB M&E and surveillance data for TB program and/or policy decision making and countries that demonstrate a change in the performance of a TB M&E and surveillance system. As these are the cumulative effects of improvements to the TB M&E and surveillance systems, time is a limiting factor in the ability to follow up and document system performance and data-driven decision making. It is anticipated that there will be countries using TB M&E and surveillance data to inform program and policy decision making beyond the life of the TB DIAH project. The targets for both impact indicators were adjusted as part of the Year 5 MEL plan revision based on greater understanding of the challenges in documenting these higher-level results.

In Nigeria, TB DIAH's largest field-funded activity, we were able to document both an example of data used for decision-making, as well as two instances of improvements to the performance of the M&E system; however, due to the definition of the impact indicator, the two instances in Nigeria count towards one country in which we documented an improvement to system performance

High-level Results by IR

Over the course of the project, TB DIAH contributed to the improvement of TB M&E and surveillance systems in TB priority countries. Under IR 1, the project strengthened the collection, analysis, and use of routine health and TB data. Countries improved data collection and data quality checks, including TB reporting form revisions in the Kyrgyz Republic and the development of TB IP weekly reporting templates in Nigeria. Nigeria's NTBLCP used TB DIAH's NETIMS assessment results to support a transition to a fully EMR system, and TB IPs shifted from Excel-based TB IP reporting to DHIS2. The DRC also enhanced data management by accessing DHIS2 data on servers instead of local hard drives.

To support a culture of data analysis and use, countries established practices such as data review meetings and annual surveillance reports in the DRC and Kyrgyz Republic. Training initiatives included TB DIAH's TBCI e-Learning course, widely disseminated and available in four languages; the Kyrgyz Republic expanding TB M&E and surveillance system trainings for TB subnational staff; and Cambodia adopting a TB M&E e-Learning course.

Under IR 2, TB DIAH improved the design and implementation of M&E frameworks and information gathering processes TB DIAH supported USAID to draft, develop, promote, and provide training on the PBMEF, which prioritizes standard indicators for monitoring progress toward USAID's global TB goals. TB DIAH supported Cambodia, the Kyrgyz Republic, and Uzbekistan to incorporate PBMEF indicators in their new or updated national TB M&E plans, while Moldova used the PBMEF for their national M&E plan due to TB DIAH's EEE events, independent of USAID reporting requirements. Additionally, TB

DIAH launched the EEE COE, which provides regional TB M&E TA through the website, consultative meetings and trainings.

For IR 3, TB DIAH activities strengthened reporting and communication. TB DIAH conducted NTP website transparency assessments in Nigeria and Kyrgyz Republic, resulting in both NTPs making significant improvements to their websites and enhancing communication with stakeholders, including the public and policy makers. TB DIAH's Knowledge Hub has also been a useful resource for stakeholders working in digital TB surveillance.

1 IR 1
Strengthened collection, analysis, and use of routine health and TB data

Outcome Results

Use of Post-Assessment Recommendations

- ✓ Over the course of the project, TB DIAH documented 145 instances of assessment recommendations being used by TB stakeholders, of which 52 occurred in the final year of the project. The life-of-project target set in the TB DIAH MEL plan was 4. This indicator was revised in February 2024, to capture "post-assessment recommendations," as opposed to "action plans," which was language that had not been used by project activities to-date. This indicator was then able to capture the contributions of the large number of assessments conducted by the project.
- ✓ In 2021, TB DIAH evaluated Nigeria's NETIMS to assess its ability to produce quality data for decision making and guide the development of a TB M&E system strengthening roadmap. In response to identified challenges, TB DIAH collaborated with the NTBLCP and stakeholders to create and use a roadmap with an investment plan based on the assessment findings. The NTBLCP is using the assessment findings and recommendations to support the transition to a fully electronic reporting system and the development of a domestic EMR system.
- ✓ Beginning in 2022, TB DIAH conducted needs assessments in Nigeria to establish TBSRs for the NTBLCP and the STBLCPs for Anambra, Kano, Lagos, and Osun States. The NTBLCP and STBLCPs used the recommendations to design or upgrade spaces for the TBSRs, tailored to each location's needs and pre-existing resources. The NTBLCP implemented upgrades, ensuring the TBSR met the required standards (e.g., equipment, electrical, and technology essentials) to successfully launch and sustain operations. Similarly, STBLCPs adopted these recommendations to bring their TBSR sites up to readiness levels. The NTBLCP and all four STBLCPs have taken ownership of their respective TBSRs and committed to sustaining them beyond the TB DIAH project. By adopting the TBSR model, NTBLCP and STBLCPs are enhancing real-time data transmission and stakeholder interaction, leading to more informed decision making and effective strategies for TB control.
- ✓ In the Kyrgyz Republic, TB DIAH conducted an ARC in 2021, identifying gaps in the surveillance system's ability to report and use TB data. In response to the ARC findings, the NTP revised the TB recording and reporting forms and tools.

- ✓ For the Kyrgyz Republic GHS activity, TB DIAH conducted two assessments in 2024: one evaluating the IEPID information system and the other assessing the M&E capacity of DDPSSES staff. Based on the findings of both assessments, DDPSSES revised their mandatory annual five-day epidemiologist training course to include a dedicated day focused on enhancing knowledge of the IEPID system.
- ✓ In Afghanistan, TB DIAH conducted a QTSA. The NTP STAR advisor presented the QTSA Afghanistan findings and recommendations in a presentation in the UNDP/Global Fund Afghanistan Grant Revision workshop to inform the renewal of the UNDP/Global Fund combined grant to support HIV/AIDS, TB, and malaria and health systems in Afghanistan.
- ✓ TB DIAH funded, organized, and facilitated a D2AC assessment workshop in Dhaka, Bangladesh in December 2022. The workshop was hosted and attended by the NTP, who identified and invited participants. The findings of the D2AC workshop were shared with the NTP through the implementation plan developed during the workshop, which was available immediately and published the completed technical report.
- ✓ The Bangladesh NTP has since taken the findings of the D2AC into consideration and has taken steps to improve their TB data quality and use. Key recommendations from the D2AC included ensuring monitoring of data quality through quarterly data consistency checks between the e-TB Manager and the DHIS2 to reduce bias and duplication in reporting. The NTP has improved their practice of periodic analysis during the data review period, the results of which are then communicated to the central level NTP staff in charge of making programmatic decisions. The NTP also began customizing the e-TB Manager, the nationwide digital data collection and reporting tool, by incorporating dashboards for select indicators. By incorporating dashboards, the NTP is taking steps to support regular, timely, and accurate data review for quality and decision making. The NTP also implemented improvements to the DHIS2 to include training on system monitoring. By taking steps to improve data quality, analysis and communication, and staff capacity for monitoring, the NTP is also following on recommendations to build a culture of data use within the NTP.

Proportion of Field-Funded Activities that Result in a Change in Practice

- ✓ Over the course of the project, TB DIAH documented 13 instances of changes in TB M&E and surveillance practices in 4 countries, of which 10 instances occurred in the final year of the project. This is a total proportion of 80% of TB DIAH's five field funded activities that ran longer than 12 months, excluding Afghanistan, which was limited to the QTSA activity, and Uzbekistan, whose activity last 11 months. The life-of-project target set in the TB DIAH MEL plan was 75%, or 3 out of 4.
- ✓ From 2021 to 2024, TB DIAH implemented a series of technical activities in the DRC that led to improvements in PNLT practices around data analysis and use practices. Previously, the PNLT lacked a system for producing both an annual TB surveillance report and a quarterly TB epidemiological bulletin, limiting its ability to generate, share, and use TB data for decision making. With TB DIAH's support, the PNLT successfully implemented systems for preparing, printing, and disseminating both reports. Two editions of the annual report were supported in 2022 and 2023, along with three editions of the quarterly bulletin in 2023. The PNLT intends to continue publishing these reports.

- ✓ TB DIAH also facilitated the establishment of a national technical working group on TB M&E, led by the PNLT and inclusive of major technical partners and donors. Since its launch in March 2023, the task force has met quarterly, focusing on providing high-quality, real-time strategic information, sharing trends in TB data, and proposing solutions to M&E challenges.
- ✓ Additionally, TB DIAH assisted in transferring TB DHIS2 data from local storage on staff computers to a centralized server managed by PNLT leadership. The transfer has made several years of data easily available to PNLT staff, facilitating more continuous and timely data use.

Proportion of TB DIAH Informational Products Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH documented 8 instances of TB DIAH information products being used by a stakeholder, 5 of which occurred in the final year of the project. This is a total proportion of 7.1%. The life-of-project target set in the TB DIAH MEL plan was 10%.
- ✓ The TB Data Hub was shared by stakeholders as a data tool and resource. The summary dashboards home page, which displays data visualizations illustrating progress toward the Reach Cure Prevent goals, was shared by the Providing for Health partnership website. A Malawi-based hospital system also linked to the TB Data Hub for Malawi-specific data.
- ✓ In the Kyrgyz Republic, TB DIAH developed the 2022 Annual TB Surveillance Report in English and Russian with feedback and approval from the NTP. The NTP distributed the report to regional TB centers to use during data review meetings, encouraging the use of the product and supporting a data use culture within the TB surveillance system.

Proportion of TB DIAH Tools and Guidance Documents Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH documented 36 instances of TB DIAH tools and guidance documents being used by a stakeholder, 28 of which occurred in the final year of the project. However, use of the PBMEF comprises most of these instances, so the total proportion of tools and guidance documents used was 9.4%. The life-of-project target set in the TB DIAH MEL plan was 20%, which did not account for certain tools and guidance being used disproportionately more than other resources.
- ✓ The USAID-funded Cure TB project used TB DIAH's Global QTSA tools to conduct a baseline assessment on quality of TB care in the Kyrgyz Republic. The Cure TB project adapted the tools, including translation to Kyrgyz and Russian languages, to gather project baseline data in the Kyrgyz Republic.
- ✓ In Nigeria, TB stakeholders have used a variety of tools developed by TB DIAH to improve TB data quality. The LONs (KNCV and IHVN) use biweekly performance review templates developed by TB DIAH, using PBMEF indicators chosen by both partners, and analyze their performance using the dashboards created by TB DIAH. The LONs also use the GeneXpert Failed Module Resolution Tracker during these meetings to identify and resolve issues with GeneXpert modules across 18 states in Nigeria. The USAID IPs have adhered to the SOP for Data Exchange, ensuring partner DHIS2 platforms align with APPR and PBMEF requirements and readiness for data exchanges or pulls.
- ✓ In the Kyrgyz Republic, the DQR supervisory checklist was installed on the tablets of oblast TB M&E coordinators on the last day of the ToT conducted in July 2022 and will be required to use the checklist during their visits. The checklists are implemented nationwide.

Proportion of TB DIAH e-Learning Courses and Training Materials Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH documented 12 instances of TB DIAH's e-learning and training materials used by TB stakeholders independent of TB DIAH's direct support, of which 8 were documented in the final year of the project. However, these 12 instances represent 5 total courses for a total proportion of 16.1% of the 31 documented training materials and curricula developed by the project. The life-of-project target set in the TB DIAH MEL plan was 80%. Similar to the tools and guidance documents, this method of calculating the proportion of the resources used by stakeholders does not account for some resources being referenced more frequently than others.
- ✓ TB DIAH developed three self-directed e-Learning courses, hosted on the Knowledge Hub. Two of these courses—*TBCI for Frontline Workers* and *Finding TB Cases among PLHIV*—are available in English, French, Russian, and Portuguese. The most recent course, *TB Contact Investigation for Program Managers*, is available in English. These courses address capacity strengthening needs and have been promoted by various global stakeholders.
- ✓ The *TBCI for Frontline Workers* course was the first developed and is included in several important global resources:
    - It is featured in the STOP TB Partnership's online resources repository.
    - The Pan American Health Organization includes it in its *Hoja de ruta para poner fin a la tuberculosis en la población infantil y adolescente, Tercera edición*.
    - The World Health Organization (WHO) lists it in the *Roadmap Towards Ending TB in Children and Adolescents, Third Edition*, and in its French version it is included in the WHO's *Feuille de route pour mettre fin à la tuberculose de l'enfant et de l'adolescent, Troisième édition*.
    - It is referenced in the WHO's *WHO Consolidated Guidelines on Tuberculosis: Tuberculosis Preventive Treatment* in the section on CI, which lists the TB DIAH e-Learning portal.
- ✓ The NTP of Tajikistan promotes the Russian version in their e-Learning course library, while the NTP of Bangladesh links to the e-learning courses in their National TB Strategic Plan (2024–2030) under the strategic activity, "Build capacity and use digital tools for expansion of coverage." USAID's LEAP Global also links to the TB DIAH course catalogue on their professional development opportunities page.
- ✓ In Cambodia, TB DIAH developed an e-Learning course on M&E of TB Programs in Cambodia in collaboration with CENAT, in English and Khmer. CENAT hosts the course on its website; it is also directly available from TB DIAH's website. Additionally, KHANA adapted the TB M&E curriculum that TB DIAH developed for OD supervisors, tailoring the material on the Cambodia MIS to train supervisors from the 27 ODs in their target area.
- ✓ In the Kyrgyz Republic, the DSD&IC has taken TB DIAH training materials for subnational M&E trainings to improve TB M&E at multiple levels of the system throughout the entire country. In July and August 2024, the DSD&IC conducted multiple rounds of oblast and district-level trainings using materials developed by the TB DIAH project, specifically presentations on the national TB M&E guidelines, tools, and resources. The trainings were conducted across all 8

regions of the country, with 120 individuals trained, including 18 oblast TB coordinators and 102 district-level staff, such as TB physicians and M&E staff.

The use of TB DIAH materials in these trainings aligns with the project's objective to operationalize standardized M&E definitions, functions, processes, and tools at all levels of the health system and build the capacity of health professionals to monitor and evaluate TB programs effectively, ensuring compliance with national M&E guidelines and improving data-driven decision making.

Impact Results

Countries that Use TB M&E and Surveillance Data for Program/Policy Decision Making

Over the course of the project, TB DIAH was able to document two instances of countries using TB M&E and surveillance data for program or policy decision making, of which one was documented in the final year of the project. The life-of-project target set in the TB DIAH MEL plan was three.

In the first instance, in 2021, USAID's Cure TB project, with TA from TB DIAH, adapted the QTSA to gather project baseline data in the Kyrgyz Republic, which provided comprehensive nationally representative data on the quality of TB care. As the Cure TB project was involved in the National Program Tuberculosis VI development, they used some preliminary QTSA results to help set NTP priorities and inform relevant sections and the implementation plan of the national TB strategy.

In the second, Nigeria LON IPs, KNCV and IHVN, collaborated with TB DIAH to conduct detailed analyses of TB data on the APPR in July 2022, identifying progress on key performance indicators and gaps needing improvement. The primary gaps identified were related to minimal data quality issues associated with Excel-based tools and suboptimal performance in certain interventions, which varied across the review periods. A critical decision made by both IPs was to transition from the Excel-based reporting system to a completely electronic platform, DHIS2. This decision, made in July 2022, was informed by the inability of the TB LON IPs to capture key PBMEF indicators on the APPR, which highlighted the urgent need for improvement. The platform was established in 2022 and refined in 2024. This transition established a TB LON IPs-specific data reporting platform for the USAID project using DHIS2, improving data reporting and communication between IPs and digital systems.

Countries that Demonstrate a Change in Performance of a TB M&E and Surveillance System

TB DIAH's life-of-project total for countries demonstrating a change in performance of a TB M&E and surveillance system was one; the target was three. However, two instances were documented in Nigeria, TB DIAH's largest field-funded activity.

In spring 2021, TB DIAH Nigeria began participating in weekly data and performance review meetings with the NTBLCP, USAID/Nigeria, and IPs. To facilitate these discussions, TB DIAH developed a reporting template for each IP to record their data prior to the meetings. Following a deep-dive data analysis requested by USAID/Nigeria, TB DIAH expanded the reporting templates to include additional disaggregated data points. This enhancement improved the accuracy and completeness of the data collected, facilitating a better understanding of interventions, performance, and progress related to USAID's investment in Nigeria.

The use of GeneXpert Failed Modules Resolution Tracker has also improved TB M&E and surveillance system performance in Nigeria. The GeneXpert Failed Modules Resolution Tracker, launched by TB DIAH and USAID/Nigeria in May 2023, has improved the performance of the TB M&E and surveillance system in Nigeria. The tracker, now used by KNCV and IHVN across 18 states, standardizes the reporting of efforts to fix malfunctioning GeneXpert modules. The resulting dashboards are presented in the biweekly performance review meetings. By systematically capturing and validating data in near real time, the tracker has enhanced data quality (accuracy, completeness, and timeliness), provided insights for resource allocation, and minimized downtime in TB diagnostic services. This has strengthened decision making and responsiveness in TB program management, contributing to improved system performance.

IR 2
Improved design and implementation of M&E frameworks and information gathering processes, including tools, methodologies, and technical guidance to meet users' needs

Outcome Results

Countries that Used a TB Data Hub Resource to Produce an Information Product or Resource

- ✓ Over the course of the project, TB DIAH was able to document 24 countries using a TB Data Hub resource to produce and information product, of which one, Pakistan implementing the ARC tool sub-nationally, occurred in the final year of the project.
- ✓ In 2023, TB DIAH expanded the use of its Data Hub platform in Pakistan by creating accounts for all seven administrative units, marking the first subnational implementation of the ARC tool. An in-country USAID IP (Integrated Health Systems Strengthening and Service Delivery, IHSS-SD) and STAR Advisors used the tool to complete the ARC assessment and produce subnational-level result tables and data diagrams. The subnational ARC implementation provided a detailed picture of the capacity to generate, report, analyze, and use TB data, supporting the IP's efforts to identify strengths and gaps in the country's TB M&E and surveillance systems.
- ✓ Additionally, the TB Data Hub facilitated the generation of tables for USAID's TB Priority Country Roadmaps. TB DIAH supported Missions to enter data on the PBMEF and prevention indicators across USAID's 23 TB priority countries from 2019–2021, using specifically designed data collection tools. TB DIAH used the PBMEF data to create Core Indicator Assessment Profiles for each country, providing an overview of TB data completeness, alignment with United Nations General Assembly (UNGA) targets, and trends over time. TB DIAH also developed Prevention Indicator Profiles, summarizing three key prevention indicators as they relate to policy, programming, and data collection in each country.
- ✓ The TB Data Hub generated tables for USAID's TB Priority Country Roadmaps, presenting data on the 10 Core indicators by year, including projects and UNGA targets.

Use of Post-Assessment Recommendations

- ✓ Over the course of the project, TB DIAH documented 145 instances of assessment recommendations being used by TB stakeholders, of which 52 occurred in the final year of the project.
- ✓ Using data reported in the TB Data Hub from 2019 to 2021, TB DIAH generated Core Indicator Assessments to provide overviews of USAID priority countries on the PBMEF Core indicators, encompassing data completeness, alignment with UNGA targets, and performance changes. These summaries informed the development of TB Roadmaps for USAID's TB priority countries.
- ✓ In 2023 and 2024, TB DIAH also reviewed IP M&E plans and annual reports, creating reports that highlighted progress and the inclusion of PBMEF indicators in the M&E plans. These reports also supported USAID in developing TB Roadmaps and planning TB funding with the priority countries. In 2023 TB DIAH reviewed 22 such documents; in 2024 it reviewed 24.

Proportion of Field-Funded Activities That Result in a Change in Practice

- ✓ Over the course of the project, TB DIAH documented 13 instances of changes in TB M&E and surveillance practices in 4 countries, of which 10 instances occurred in the final year of the project. This is a total proportion of 80% of TB DIAH's 5 field funded activities.
- ✓ From 2020 to 2023, TB DIAH implemented technical activities in Cambodia to support CENAT's TB M&E policies and practices. The updated NSP (2021–2030), approved January 2021, outlined key initiatives for achieving the goal of ending TB in Cambodia by 2035. To measure progress against these goals, TB DIAH led the development of a National TB M&E Plan (2021–2030), which received MOH approval in January 2023, becoming a national document.
- ✓ TB DIAH also supported CENAT's CCTBR, established in 2020, to support the strategic goals of the NSP for TB research and innovation. The project conducted a situational analysis of TB research in Cambodia, identifying barriers and resources available for TB research. This analysis informed the development of the TB Research Guidelines and Protocol, created in collaboration with CENAT and CCTBR. The finalized guidelines, approved in January 2023, enhance the scientific and ethical standards for TB research, supporting the country's commitment to effective TB control. CENAT's teams conducted two operations research activities while participating in the OR training, resulting in a change in practice at CENAT.
- ✓ From 2021 to 2024, TB DIAH implemented a series of technical activities in the Kyrgyz Republic that resulted in improvements in the NTP's TB M&E and surveillance policies and practices. In collaboration with the NTP, TB DIAH developed a National TB M&E Plan (2022–2026), which was approved as government policy by the MOH in 2023. Following this approval, TB DIAH worked with the NTP, Cure TB, and STAR to create Practical Guidelines for M&E of the NTP. These guidelines underwent review by the TWG and received MOH approval in 2024. They were subsequently distributed to health workers across all levels of the health system, aimed at strengthening M&E processes, improving TB data quality, and enhancing the overall effectiveness of the TB program in achieving its goals and objectives.
- ✓ TB DIAH also provided TA to the newly established DSD&IC of the NCPh, created by MOH Order in October 2023. This support included capacity building for five junior staff and assistance for an international expert's visit to strengthen the department's M&E and research systems.

Additionally, TB DIAH facilitated ISO 9001 certification preparation through Quality Management System training and SOP development. These efforts supported the department to institutionalize capacity for managing TB research and M&E initiatives.

M&E Technical Support Provided by the COE

- ✓ Over the course of the project, TB DIAH documented 7 instances of the COE providing technical support for TB M&E, of which one occurred in the final year of the project. The life-of-project target set in the TB DIAH MEL plan was >2.
- ✓ Following its official launch in May 2022, TB DIAH, through the COE, organized a Regional Consultative Meeting in Tbilisi, Georgia, from July 28–29, 2022. This meeting facilitated collaboration between NTPs from Armenia, Azerbaijan, and Moldova, aimed at reviewing TB program progress and enhancing data collection processes.
- ✓ Subsequently, National Consultative Meetings were held in Armenia, Azerbaijan, Georgia, and Moldova between October and November 2022 to further engage NTPs and stakeholders in discussions on TB M&E. These meetings focused on reviewing TB program achievements, sharing COE best practices, and identifying areas for improvement in M&E frameworks. During these events, NTPs and TB stakeholders identified overarching challenges across different domains of TB M&E and surveillance systems and emphasized the need for capacity strengthening.
- ✓ To support capacity strengthening in TB M&E and surveillance, TB DIAH and COE staff developed a customized ToT curriculum for the region, based on the existing TB M&E curriculum by TB DIAH that is used in other parts of the world. TB DIAH and the COE led an EEE Regional ToT in 2023 for NTP representatives and affiliated professionals from Armenia, Georgia, Moldova, and Ukraine.
- ✓ The COE is also collaborating with the WHO's European office on an e-Learning course for the WHO's updated TB surveillance guidelines, with TB DIAH providing support to workflow management and content creation guidance.

Proportion of TB DIAH Informational Products Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH documented 8 instances of TB DIAH information products being used by a stakeholder, 5 of which occurred in the final year of the project. This is a total proportion of 7.1%. The life-of-project target set in the TB DIAH MEL plan was 10%.
- ✓ The USAID SMART4TB Consortium integrated a PBMEF visual in a presentation on February 7, 2023, which included a link to the PBMEF webpage on the TB DIAH Knowledge Hub. Additionally, on July 13, 2021, the Global Tuberculosis Institute announced the PBMEF's launch via social media, emphasizing its role as a key component in USAID's accountability efforts for TB investments globally. The post linked to TB DIAH's PBMEF webpage, highlighting its importance in accelerating progress toward ending the TB epidemic.

Proportion of TB DIAH Tools and Guidance Documents Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH was able to document 36 instances of TB DIAH tools and guidance documents being used by a stakeholder, of which 28 occurred in the final year of the project. The total proportion of tools and guidance documents with documented use was 9.4%. The life-of-project target set in the TB DIAH MEL plan was 20%, which did not account

for certain tools and guidance being used disproportionately more than other resources.

- ✓ PBMEF indicators have been successfully implemented in the policies and practices of TB stakeholders both within and outside of TB DIAH's focus countries and USAID's TB priority countries. Based on a 2024 review by TB DIAH, 21 out of 24 USAID TB priority countries included PBMEF Core indicators in their TB NSPs, with Ethiopia, Kenya, and Nigeria including all 10 Core indicators. Uzbekistan's M&E Plan, when approved, will add all 10 Core, 11 Core Plus, and several project-level indicators from the PBMEF as an annex to the NSP.
- ✓ In Uzbekistan, the NTP included five out of 10 PBMEF indicators into its most recent Global Fund proposal, reflecting ongoing integration efforts.
- ✓ Similarly, in Cambodia, TB DIAH developed the National TB M&E Plan (2021–2025) in alignment with the new TB NSP. The plan includes 19 PBMEF indicators, including eight Core indicators, and was officially approved and adopted by CENAT in January 2023.
- ✓ In Kyrgyz Republic, TB DIAH also supported the NTP to update the National TB M&E Plan, incorporating 21 PBMEF indicators, including 9 Core indicators. In July 2023, the MOH approved the updated indicators, and the NTP approved the M&E activities. TB DIAH's support in developing TB M&E systems in several countries has resulted in the institutionalization of PBMEF indicators within official policies, demonstrating the countries' commitment to aligning their TB M&E and surveillance efforts with international standards.
- ✓ Throughout the project, TB DIAH also supported KNCV and IHVN in Nigeria, two key LONs, to regularly review and improve TB program performance using TB DIAH tools, including the PBMEF. The LONs applied the PBMEF to identify and track key indicators, incorporating data collected through the biweekly reporting templates developed by the project. Using the TB DIAH dashboard, they compared PBMEF indicator data against established targets in their routine biweekly reviews. This structured approach ensured consistent monitoring, enabling stakeholders to make informed decisions and adjust strategies to optimize program outcomes.
- ✓ Outside of USAID's TB priority countries, the Moldova NTP used the PBMEF guide as a reference to develop the Moldova National TB M&E Manual, "Operational Manual for monitoring and evaluation of the National Tuberculosis Response Program for the years 2022 – 2025" in 2023. The definitions of the PBMEF Core indicators informed the development of the indicators used by the NTP included in the manual. Additionally, the indicators are informed by the WHO definitions and will be updated with the new WHO indicator definitions published at the end of 2023 and finalized in January 2024.

Proportion of TB DIAH e-Learning Courses and Training Materials Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH was able to document 12 instances of TB DIAH's e-learning and training materials used by TB stakeholders independent of TB DIAH's direct support, of which 8 were documented in the final year of the project. However, these 12 instances represent 5 total courses for a total proportion of 16.1%.
- ✓ In the Kyrgyz Republic, DSD&IC staff conducted oblast- and district-level trainings using materials developed by the TB DIAH project, demonstrating the country's uptake and ownership of standardized M&E guidelines, tools, and resources. Trainings, conducted across

all 8 regions of the country, reached 120 individuals, including 18 oblast TB coordinators and 102 district-level staff. These efforts built the capacity of health professionals to monitor and evaluate TB programs effectively, ensuring compliance with national M&E guidelines and improving data-driven decision making at multiple levels of the system.

- ✓ In Cambodia, CENAT has also adopted a TB M&E course to strengthen staff capacity. TB DIAH, in collaboration with CENAT, developed a Khmer-language curriculum aligned with the country's TB NSP and tailored to specific needs identified through a capacity assessment. The course is now hosted as an e-Course on CENAT's website.

IR 3
Strengthened reporting and communication, as well as methods, tools, and approaches improved and applied to address communication gaps

Outcome Results

Use of Post-Assessment Recommendations

- ✓ Over the course of the project, TB DIAH was able to document 12 instances of TB DIAH's e-learning and training materials used by TB stakeholders independent of TB DIAH's direct support, of which 8 were documented in the final year of the project. However, these 12 instances represent 5 total courses for a total proportion of 16.1%.
- ✓ TB DIAH conducted NTP Website Transparency Assessments for the Kyrgyz Republic and Nigeria, identifying improvements for better communication with stakeholders, including the public and policy makers. As a result, the Kyrgyz Republic implemented several enhancements, including publishing documents and data, to align with the transparency standards set by the 2021 USAID and Stop TB Partnership's Governance of TB Programs report. Nigeria also adopted recommendations from the assessment and updated their website, improving the visibility and accessibility of the NTBLCP's plans, activities, and documents. Improvements to the NTP websites have improved the ability of the programs to effectively share information and resources with TB stakeholders, including the public.

Proportion of TB DIAH Informational Products Used by a TB Stakeholder

- ✓ Over the course of the project, TB DIAH was able to document 8 instances of TB DIAH information products being used by a stakeholder, of which 5 occurred in the final year of the project. This is a total proportion of 7.1%. The life-of-project target set in the TB DIAH MEL plan was 10%.
- ✓ TB DIAH's Knowledge Hub has been a useful resource for stakeholders working in digital TB surveillance. The STOP TB Partnership and Global Fund online Digital TB Surveillance System Assessment Report (tbassessment.stoptb.org) cites the TB DIAH Knowledge Hub home webpage as an informational resource in their landscaping of digital TB surveillance systems support; TB DIAH is also listed in the report's Resource Library section. The archive of the

project's webinars, hosted on the Knowledge Hub, is also shared by USAID's LEAP Global professional development opportunities page.

- ✓ The PBMEF webpage on the Knowledge Hub (tbdiah.org) has been promoted and shared by global TB stakeholders. With the launch of the PBMEF in 2021, the Global Tuberculosis Institute announced the launch on their social media alongside the PBMEF visual summary, linking to the webpage on TB DIAH's Knowledge Hub. USAID's SMART4TB Consortium included a PBMEF visual in a webinar on their work in 2023, also linking to the webpage.

Appendix 5: Year 5 Results Tables

Table 3. Results by Output Indicator through Year 5[3]

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
A1. Number of TB Data Hub resources (e.g., reporting tools, templates, and dashboards, etc.) developed/ updated by TB DIAH	2	4	9	13	**1**	1. QTSA Explorer in TB Data Hub *Note: Use of the TB Data Hub tools to submit TB Roadmap core indicator and prevention indicator data was phased out in 2023.*	**29**	40
A2. Number of assessments completed by or with support from TB DIAH	0	47	36	91	**69**	ARC Country Reports 1. Armenia Final ARC Report 2. Georgia Final ARC Report 3. Haiti Final ARC Report (English and French) 4. Moldova Final ARC Report 5. Pakistan Final ARC Report D2AC Assessments 6. Haiti D2AC Assessment (English and French) 7. Uzbekistan D2AC Assessment MESSA Country Profiles 8. Armenia MESSA Profile	**243**	91

[3] The TB DIAH Year 5 Workplan was approved June 30, 2023, and the Addendum to the TB DIAH Year 5 Core Workplan approved August 23, 2024. The Year 5 results totals reflect the extended timeframe.

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						9. Georgia MESSA Profile 10. Moldova MESSA Profile 11. Pakistan MESSA Profile Nigeria TB Situation Room (TBSR) Needs Assessment 12. TBSR Needs Assessment for Lagos State, Nigeria TB Roadmap M&E and Annual Reports Review 2023 (2022 provisional data) 13. Afghanistan TB Roadmap Review 2023 14. Bangladesh TB Roadmap Review 2023 15. Burma TB Roadmap Review 2023 16. Cambodia TB Roadmap Review 2023 17. DRC TB Roadmap Review 2023 18. Ethiopia TB Roadmap Review 2023 19. India TB Roadmap Review 2023 20. Indonesia TB Roadmap Review 2023 21. Kenya TB Roadmap Review 2023 22. Kyrgyz Republic TB Roadmap Review 2023 23. Malawi TB Roadmap Review 2023 24. Mozambique TB Roadmap Review 2023 25. Nigeria TB Roadmap Review 2023 26. Philippines TB Roadmap Review 2023 27. South Africa TB Roadmap Review 2023 28. Tajikistan TB Roadmap Review 2023 29. Tanzania TB Roadmap Review 2023 30. Uganda TB Roadmap Review 2023 31. Uzbekistan TB Roadmap Review 2023		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						32. Vietnam TB Roadmap Review 2023 33. Zambia TB Roadmap Review 2023 34. Zimbabwe TB Roadmap Review 2023 TB Roadmap M&E and Annual Reports Review 2024 (2022 data) 35. Afghanistan TB Roadmap Review 2024 36. Bangladesh TB Roadmap Review 2024 37. Burma TB Roadmap Review 2024 38. Cambodia TB Roadmap Review 2024 39. DRC TB Roadmap Review 2024 40. Ethiopia TB Roadmap Review 2024 41. India TB Roadmap Review 2024 42. Indonesia TB Roadmap Review 2024 43. Kenya TB Roadmap Review 2024 44. Kyrgyz Republic TB Roadmap Review 2024 45. Malawi TB Roadmap Review 2024 46. Mozambique TB Roadmap Review 2024 47. Nigeria TB Roadmap Review 2024 48. Pakistan TB Roadmap Review 2024 49. Philippines TB Roadmap Review 2024 50. South Africa TB Roadmap Review 2024 51. Tajikistan TB Roadmap Review 2024 52. Tanzania TB Roadmap Review 2024 53. Uganda TB Roadmap Review 2024 54. Ukraine TB Roadmap Review 2024 55. Uzbekistan TB Roadmap Review 2024 56. Vietnam TB Roadmap Review 2024 57. Zambia TB Roadmap Review 2024		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						58. Zimbabwe TB Roadmap Review 2024 QTSA reports 59. Vietnam QTSA Additional Assessments 60. Data quality review (DQR) report for Kasaï-Oriental Province, DRC 61. DRC DQR Report (English and French) 62. Kyrgyz Republic National TB Program Website Transparency Assessment 63. Nigeria NTBLCP Website Landscape Assessment 64. Uzbekistan TB M&E and Surveillance System Landscape Assessment 65. Armenia Health Management Information System (HMIS) Assessment 66. Georgia HMIS Assessment 67. Research and Evaluation Capacity (RECAP) Assessment[4] of Kyrgyz Republic Department of Strategic Cooperation and International Cooperation (DSD&IC) 68. Kyrgyz Republic IEPID Assessment 69. Kyrgyz Republic M&E and Surveillance Capacity Assessment of the DDPSSES		

[4] Data for Impact (D4I) Project, 2022. (https://www.data4impactproject.org/resources/recap/)

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
A3. Number of field-funded TB M&E and surveillance strengthening activities (12+ months in length) completed	0	0	0	0	**5**	1. Afghanistan QTSA Activity 2. Cambodia TA Activity 3. DRC TA Activity 4. Kyrgyz Republic TA activity 5. Nigeria TA Activity *Note: The field-funded activity for Uzbekistan was 11 months in length.*	**5**	5
A4. Number of Centers of Excellence (COEs) established	0	0	0	1	**0**	1. Center of Excellence for the Eastern Europe and Eurasia (EE) Region	**0**	1
A5. Number of countries that requested support from TB DIAH for PBMEF reporting	0	1	4	7	**0**	*Note: Use of the TB Data Hub to submit TB Roadmap core indicator data was phased out in 2023.*	**10**[5]	13
A6. Number of informational products developed or updated by TB DIAH[6]	15	11	38	28	**21**	Briefs, factsheets, one- and two-pagers 1. "E-learning courses to promote active TB case finding" Fact sheet and flyers for the 54th Union Conference (2023) 2. "Successes and Challenges with Monitoring and Evaluating Tuberculosis (TB) Programs in Select	**113**	125

[5] Afghanistan and Uzbekistan were supported to enter their 2020 and 2021 data both Year 3 and Year 4 for an overall total of 10 countries.
[6] In the Year 5 MEL Plan revisions, indicator A6 was split from containing all TB DIAH products into 3 separate indicators: A6: information products; A7: tools/guidance products; and A8: e-learning courses, training materials, and curricula.

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						African Countries" Africa Regional Workshop program brief E-Newsletters 3. TB DIAH Digest e-newsletter April 2023 4. TB DIAH Monthly Bulletin e-newsletter Feb 2024 Infographics 5. DRC QTSA infographic (English) 6. DRC QTSA infographic (French) 7. "Contact Investigation: Identifying TB Contacts. QTSA Country Surveys (2019-2023)" infographic (2024) Success Stories 8. COE success story "Eastern Europe Regional Training of Trainers in TB Monitoring and Evaluation and Surveillance Capacity Strengthening" 9. COE success story "Supercharge TB Monitoring and Evaluation Knowledge with the Power of AI" 10. "Advancing Operational Research to Stop TB in the Democratic Republic of the Congo" success story 11. "Tuberculosis Monitoring and Evaluation Trainings in Democratic Republic of Congo" success story 12. “Supporting National Tuberculosis Programs with TB DIAH’s Assessment of Data Collection,		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Reporting, and Analysis Capacity (ARC) Tool" Data Hub ARC success story Reports 13. "Factors Associated with Adherence to National Diagnostic Standards for Pulmonary Tuberculosis (PTB) in the Kyrgyz Republic" cross-sectional study 14. "Factors associated with the mortality of TB patients in treatment in diagnostic and treatment center in Haut-Katanga Province, DRC" operational research study report 15. "Report concerning the pilot study on factors associated with mortality of patients suffering from TB and under treatment in 11 diagnostic and treatment centers in the province of Lualaba from January - December 2021" operational research study report 16. 2022 Annual TB Surveillance Report, Kyrgyz Republic (Russian) 17. "Assessment of the electronic TB-MIS application in selected provinces in Cambodia" TB operational research manuscript written by CENAT with TB DIAH support (Eam et al., 2023) 18. "Factors associated with non-completion of tuberculosis prevention treatment: A mixed-method operational study of programmatic implementation in Battambang province, Cambodia" TB operational research manuscript		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						written by CENAT with TB DIAH support (Hak et al., 2023) Webpages 19. COE website publicly available Additional Information Products 20. TB DIAH Nigeria Closeout Brochure 21. Updated PBMEF FAQ		
A7. Number of tools and guidance documents developed or updated by TB DIAH	2	1	25	27	**41**	Country TB M&E, research, and training plans and guidance 1. Cambodia Guidelines for Conducting a Quarterly Performance Review Meeting 2. Cambodia National TB Research Guidelines and Protocols (English) 3. Cambodia National TB Research Guidelines and Protocols (Khmer) 4. DRC National Guidelines on Operational Research 5. Concept Note for Regional Training of Trainers in TB M&E for EEE Region 6. Costed STEP and Blueprint for Kyrgyz Republic 7. Kyrgyz Republic TB M&E Guidelines 8. Nigeria state-level dashboard user requirements guidance document 9. Tuberculosis Situation Room Management and Implementation Guidance	**96**	>74

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						10. EE Region Center of Excellence (COE) TB M&E Technical Working Group (TWG) Terms of Reference (TOR) (English) 11. EE Region Center of Excellence (COE) TB M&E Technical Working Group (TWG) Terms of Reference (TOR) (Russian) 12. Funding Opportunities for DSD&IC/NTP, Kyrgyz Republic 13. "Concept Note: Strengthening the Implementation of the Electronic Tuberculosis Surveillance System, Uzbekistan" (October 2024) 14. Uzbekistan National M&E Plan (English) 15. Uzbekistan National M&E Plan (Russian) Global Assessment Tools and Guidance 16. D2AC Toolkit (French) 17. TB Data-to-Action Continuum (D2AC) Toolkit (English) 18. Vietnam QTSA tools (English and Vietnamese) PBMEF Tools and Guidance 19. MEL Plan Template for USAID TB IPs Protocols 20. Uzbekistan TB M&E Landscape Analysis Protocol Standard Operating Procedures (SOPs) 21. Kyrgyz Republic Data Review Meeting SOP (Russian)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						22. Standard operating procedure (SOP) for Nigeria TBSRs 23. Standard operating procedures (SOPs) for downloading or pulling monthly data from existing systems into the Nigeria state-level dashboards 24. Communications SOPs for DSD&IC in Kyrgyz Republic 25. Kyrgyz Republic SOP for online verification of TB data (Russian) 26. SOP for National Epidemiological Data Review Meetings for Kyrgyz Republic DDPSSES TB Data Dashboards 27. Cambodia Operational District Level Health Facility Dashboard (English) 28. Cambodia Operational District Level Health Facility Dashboard (Khmer) 29. Customized state-level interactive dashboard for Kano State, Nigeria 30. Customized state-level interactive dashboard for Lagos State, Nigeria 31. Customized state-level interactive dashboard for Osun State, Nigeria Tools and Toolkits 32. Cambodia Data Quality Review (DQR) checklist for OD District Supervisors (English) 33. Cambodia Data Quality Review (DQR) checklist for OD District Supervisors (Khmer)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						34. Cambodia M&E Plan Indicator Checklist (English) 35. Cambodia M&E Plan Indicator Checklist (Khmer) 36. Decision support tool to import TB data into dashboards 37. Integrated Supportive Supervision Checklist for Nigeria NTBLCP 38. Nigeria Excel-based coaching and mentoring tool 39. Nigeria GeneXpert Failed Modules Resolution Tracker 40. Kyrgyz Republic IEPID Assessment Tool (Russian) 41. MELVIN AI chatbot on EE COE website		
A8. Number of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support	0	0	0	12	**19**	Country training materials and curricula 1. TB M&E Curriculum for Armenia 2. Generic TB M&E Curriculum for EE Region (English) 3. Cambodia TB M&E and DQR training curriculum for OD supervisors 4. Cambodia TB Research Capacity Building curriculum (5 modules) (English) 5. Cambodia TB Research Capacity Training (5 modules) (Khmer) 6. Generic TB M&E Curriculum for EE Region (Russian) 7. TB M&E Curriculum for Georgia 8. A training curriculum on TB M&E for oblast/rayon level trainings in Kyrgyz Republic	**31**	>16

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						9. Kyrgyz Republic DDPSESS seminar curriculum (Russian) 10. TOT curriculum on TB M&E and surveillance for the subnational level of Kyrgyz Republic SES (English) 11. TOT curriculum on TB M&E and surveillance for the subnational level of Kyrgyz Republic SES (Russian) 12. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar curriculum (English) 13. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar curriculum (Russian) TB DIAH e-learning courses 14. Finding TB Cases among People Living with HIV e-learning course (English) 15. Finding TB Cases among People Living with HIV e-learning course (French) 16. Finding TB Cases among People Living with HIV e-learning course (Portuguese) 17. Finding TB Cases among People Living with HIV e-learning course (Russian) 18. TBCI Frontline Worker e-learning course (Russian) 19. TBCI for Program Managers e-learning course (English)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
A9. Number of dissemination events led or supported by TB DIAH which promote or distribute TB DIAH products and/or services	2	1	11	32	**47**	Assessment results presentations 1. DRC QTSA dissemination activity (February 16, 2024) 2. DRC QTSA results presentation at the World Tuberculosis Day in Kinshasa (March 22, 2024) 3. Results from Surveillance and M&E Capacity and IEPID assessments presented to USAID/Kyrgyz Republic and GHS partners (July 31, 2024) Data review meetings 4. DRC national review meeting (October 1-8, 2023) 5. DRC national review meeting (September 21-25, 2023) 6. DRC provincial review meeting (Haut Katanga, October 19-21, 2023) 7. DRC provincial review meeting (Haut Lomami, October 25-30, 2023) 8. DRC provincial review meeting (Kasai Central, November 13-15, 2023) 9. DRC provincial review meeting (Kasai Oriental, October 23-25, 2023) 10. DRC provincial review meeting (Lomami, October 16-19, 2023) 11. DRC provincial review meeting (Lualaba, October 23-28, 2023) 12. DRC provincial review meeting (Sankuru, October 22-26, 2023) 13. DRC provincial review meeting (Sud Kivu, October 18-23, 2023)	**93**	>24

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						14. DRC provincial review meeting (Tanganyika, October 20-25, 2023) 15. Kyrgyz Republic GHS Epidemiological Data Review Meeting 1 (June 14, 2024) 16. Kyrgyz Republic Tuberculosis Data Review Meetings Workshop Report (July 20-23, 2023) 17. Operational District Quarterly Performance Review Meeting, Takeo Province, Cambodia (October 30-31, 2023) 18. Operational District Quarterly Performance Review Meeting, Tbong Khmum Province, Cambodia (October 23-24, 2023) 19. TB DIAH presentation at Nigeria 2024 Q1 South West Zonal Review Meeting (April 28 - May 2, 2024) 20. Kyrgyz Republic GHS Epidemiological Data Review Meeting 2 (July 23, 2024) Nigeria State Tuberculosis and Leprosy Control Program (STBLCP) coaching and mentoring visits 21. Osun State (June 12-17, 2023) 22. Akwa Ibom State (June 19-23, 2023) 23. Anambra State (June 21-23, 2023) 24. Lagos State (August 7-11, 2023) 25. Ogun State (December 14-15, 2023) 26. Anambra State (February 12-15, 2024) 27. Kano State (February 11-16, 2024) 28. Lagos State (April 2-6, 2024)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						29. Anambra State (April 21-24, 2024) Union conference presentations 30. “Implementing the Data-to-Action Continuum Toolkit in Ghana, Nigeria, the Kyrgyz Republic, and Bangladesh” Oral presentation at the 54th Union Conference (2023) 31. “Improving TB Data Quality with Interoperability and Data Exchange in Nigeria” Oral presentation at the 54th Union Conference (2023) 32. “The Automated Partners Progress Report (APPR): Strengthening Data-driven Approach to TB Case Notification in Nigeria" e-poster presentation at the 54th Union Conference (2023) Webinars 33. "Strengthening National TB M&E and Surveillance Systems: Tools for Understanding What to Aim For, Where to Start, and How to Get There" webinar (June 29, 2023) 34. "Data-to-Action Continuum (D2AC) Global Launch" webinar (Oct 19, 2023) 35. "Exploring the real-life uses of AI in designing and developing TB M&E training" webinar (November 2, 2023) 36. "The Digital Transformation of TB Surveillance Systems: Practical Lessons and Country Perspectives" webinar (December 14, 2023)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						37. "M&E Tools and Guidance Updates from USAID and WHO" webinar (February 20, 2024) 38. "Introducing the new USAID MEL Plan Template for USAID TB Program Activities" webinar (May 2, 2024) 39. "New Tools, Platforms and Resources for TB Data Capture, Visualization and Use" webinar (August 1, 2024) 40. "Global Preview: TB PBMEF and TB M&E e-Learning Course" webinar (October 30, 2024) Workshops 41. Uzbekistan TB M&E and Surveillance System Assessment and M&E Prioritization and Action Planning Workshop (May 14-16, 2024) Other events and presentations 42. "TB DIAH Research Capacity Building Activities in Cambodia: 2022-2023" presentation to CENAT (November 2023) 43. Results of the bacteriological study was presented to the Kyrgyz Republic NTP and TB partners (March 20, 2024) 44. "Improving TB Data Quality with Interoperability and Data Exchange in Nigeria" presentation at the 3rd African Digital Health Summit in Lagos, Nigeria (June 2024) 45. “Digitization and Data Use: Using a TB Situation Room in Nigeria for Real-Time Decision Making"		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						presentation at the 3rd African Digital Health Summit in Lagos, Nigeria (June 2024) 46. TB DIAH Kyrgyz Republic Project Key Achievements presentation (September 18, 2024) 47. TB DIAH Nigeria Project Closeout Meeting (September 24, 2024)		
A10. Number of individuals reached through TB DIAH electronic media dissemination of TB information products	3,000 email subscribers 106 social media followers	5,600 email subscribers 440 social media followers	5,570 email subscribers 571 social media followers	2,766 email subscribers 728 social media followers (409 LinkedIn + 319 Twitter)	3,744 email subscribers 986 social media followers (637 LinkedIn + 349 Twitter)	Email subscribers: 3,744 LinkedIn followers: 637 Twitter followers: 349 Knowledge Hub visitors (pageviews/visitors): (42,450/14,543) TB Data Hub visitors (pageviews/visitors): (28,441/5,100)	**3,744 email subscribers** **986 social media followers (637 LinkedIn + 349 Twitter)**	2000 email subscribers 1000 social media followers
A11. Number of TB Data SIG meetings convened by TB DIAH	0	0	4	13	**12**	1. TB Data SIG Meeting (April 11, 2023) 2. TB Data SIG Meeting (June 13, 2023) 3. TB Data SIG Meeting (August 8, 2023) 4. TB Data SIG Meeting (September 12, 2023) 5. TB Data SIG Meeting (October 10, 2023) 6. TB Data SIG Meeting (January 9, 2024) 7. TB Data SIG Meeting (February 13, 2024) 8. TB Data SIG Meeting (April 9, 2024) 9. TB Data SIG Meeting (May 14, 2024) 10. TB Data SIG Meeting (June 18, 2024) 11. TB Data SIG Meeting (September 12, 2024) 12. TB Data SIG Meeting (October 8, 2024)	**29**	34

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
A12. Number of trainings conducted by, or with support of, TB DIAH	0	0	4	15	**43**	1. National TB M&E training in Armenia (August 1-4, 2023) 2. Eastern Europe and Central Asia Regional Training in TB Monitoring and Evaluation and Surveillance Capacity Strengthening for National TB Programs (October 4-6, 2023) 3. EEE Regional TOT Training on TB M&E and surveillance (May 1-5, 2023) 4. Cambodia research capacity building workshop training "Basic Epidemiology and Research Ethics" (January 30-31, 2023) 5. Cambodia research capacity building workshop training "Research Protocol and Quantitative Research Methods" (March 6-7, 2023) 6. Cambodia research capacity building workshop training "Qualitative Research Methods and Data Analysis" training (March 9-10, 2023) 7. Cambodia research capacity building workshop training "Quantitative and Qualitative Data Analysis" (August 7-9 & 15-16, 2023) 8. Cambodia research capacity building workshop training "English Writing of Research Reports and Manuscripts" (September 28-29, 2023) 9. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (March 28–30, 2023) 10. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (April 18–20, 2023)	**62**	>40

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						11. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (May 10–12, 2023) 12. Cascade training on quantitative and qualitative data analyses for Tanganyika Province DRC health department (June 6-10, 2023) 13. Cascade training on quantitative and qualitative data analyses for Sankuru province health department, DRC (June 15-19, 2023) 14. Cascade training on quantitative and qualitative data analyses for Lualaba province health department, DRC (August 1-5, 2023) 15. Cascade training on quantitative and qualitative data analyses for Haut-Lomami province health department, DRC (August 12-16, 2023) 16. Cascade training on quantitative and qualitative data analyses for Lomami province health department, DRC (Oct 23-27, 2023) 17. Cascade training on quantitative and qualitative data analyses for Sud Kivu province health department, DRC (Oct 31-Nov 4, 2023) 18. Cascade training on quantitative and qualitative data analyses for Kasai-Oriental province health department, DRC (Nov 1-5, 2023) 19. Cascade training on quantitative and qualitative data analyses for Kasai-Central province health department, DRC (Nov 8-12, 2023) 20. National training on TB operational research for DRC PNLT and partners (September 2023)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						21. Training for national TB program staff (DSNIS, DANTIC) (May 25-26, 2023) 22. Training on data management for PNLT (May 23-24, 2023) 23. Africa Region TB M&E and PBMEF training with USAID TB advisors, NTP staff, USAID-funded TB IPs, and other regional staff (April 16-19, 2024) 24. National TB M&E training in Georgia (July 17-19, 2023) 25. Kyrgyz Republic TB M&E Guidelines rollout seminar (June 19-21, 2024) 26. Kyrgyz Republic TB Subnational Dashboards training webinars (August 25, 2024) 27. Quality Management System (QMS) training 1 for Kyrgyz Republic DSD&IC (March 18-19, 2024) 28. Quality Management System (QMS) training 2 for Kyrgyz Republic DSD&IC (May 13-16, 2024) 29. TB Data Review Meetings Workshop (July 20-12, 2023) 30. Three-day seminar on TB surveillance for Kyrgyz Republic DDPSESS (May 23–25, 2023) 31. Capacity building training on Excel and PowerBI dashboard development for M&E team of the Lagos State, Nigeria, STBLCP (November 20 - 25, 2023) 32. Capacity building training on Excel and PowerBI dashboard development for TB control team of Osun State, Nigeria, STBLCP (October 16 - 20, 2024)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						33. Capacity building training on Excel for M&E team of the Anambra State, Nigeria, STBLCP (April 21 - 24, 2024) 34. M&E Capacity Building on Data Use and Program Management for LGTBLS in Three Priority States in Nigeria (Akwa Ibom, Kano, and Osun) (May 2023) 35. National TBSR orientation training for Nigeria NTBLCP (April 19-20, 2023) 36. State TBSR orientation training in Anambra State, Nigeria (June 21-23, 2023) 37. State TBSR orientation training in Lagos State, Nigeria (June 10-14, 2024) 38. State TBSR orientation training in Osun State, Nigeria (June 12 -17, 2023) 39. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) Training of Trainers (April 22-26, 2024) 40. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) pilot sites field staff training (May 6-9, 2024) 41. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) field staff training (May 29 - June 1, 2024) 42. Cascade training on quantitative and qualitative data analyses for Haut-Katanga province health department, DRC (August 8-12, 2023)		

Output indicators	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						43. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar (August 20-22, 2024)		

Table 4. Results by Outcome Indicator through Year 5

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
B1. Number of countries that utilized a TB Data Hub resource to produce a TB information product or resource (e.g., reports, visualizations, etc.)	0	23	23	23	**1**	1. In Year 5, the TB Data Hub ARC tool was implemented in Pakistan at the sub-national level by IHSS and STAR Advisors	**24**	10
B2. Number of instances of use of post-assessment recommendations by a TB stakeholder following completion of an assessment completed by, or with support from, TB DIAH	23	23	24	46	**52**	D2AC Assessments 1. Bangladesh NTP implements findings and recommendations from the Bangladesh D2AC Nigeria TBSR Needs Assessments recommendations adopted 2. Anambra State TBSR Needs Assessment recommendations adopted by Anambra STBLCP 3. Lagos State TBSR Needs Assessment recommendations adopted by Lagos STBLCP 4. Osun State TBSR Needs Assessment recommendations adopted by Osun STBLCP TB Roadmap M&E and Annual Reports Review 2023 (2022 provisional data) used by USAID to inform USAID priority Country TB Roadmaps for 22 TB priority countries 5. Afghanistan 6. Bangladesh 7. Burma	**145**	4

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						8. Cambodia 9. DRC 10. Ethiopia 11. India 12. Indonesia 13. Kenya 14. Kyrgyz Republic 15. Malawi 16. Mozambique 17. Nigeria 18. Philippines 19. South Africa 20. Tajikistan 21. Tanzania 22. Uganda 23. Uzbekistan 24. Vietnam 25. Zambia 26. Zimbabwe TB Roadmap M&E and Annual Reports Review 2024 (2022 data) used by USAID to inform USAID priority Country TB Roadmaps for 24 TB priority countries 27. Afghanistan 28. Bangladesh 29. Burma 30. Cambodia 31. DRC 32. Ethiopia 33. India 34. Indonesia		

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						35. Kenya 36. Kyrgyz Republic 37. Malawi 38. Mozambique 39. Nigeria 40. Pakistan 41. Philippines 42. South Africa 43. Tajikistan 44. Tanzania 45. Uganda 46. Ukraine 47. Uzbekistan 48. Vietnam 49. Zambia 50. Zimbabwe Additional Assessments 51. Kyrgyz Republic NTP updated their website based on recommendations from the TB DIAH NTP website report 52. Nigeria NTP Website Needs Assessment recommendations adopted by the Nigeria NTBLCP		
B3. Proportion of field-funded TB M&E and surveillance strengthening activities that result in a	0	0	0	0	**4/5 (80%)**	Cambodia 1. Cambodia adopts and implements updated Health Facility Monthly Reporting Forms to align with new NSP and improve data quality 2. Cambodia adopts the National TB M&E Plan as government policy	**4/5 (80%)**	3/4 (75%)

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
demonstrated change in a specific M&E and surveillance practice						3. Cambodia adopts the TB Research Guidelines and Protocol as government policy DRC 4. DRC NPLT adopts Annual TB Surveillance Report as a routine TB surveillance practice 5. DRC PNLT adopts quarterly TB epidemiological bulletin as an M&E and surveillance practice 6. DRC PNLT establishes a national task force on TB M&E 7. DRC PNLT stores TB DHIS2 data in a server accessible to staff Kyrgyz Republic 8. Kyrgyz Republic adopts National TB M&E Plan 2022-2026 as government policy (2023) 9. Kyrgyz Republic adopts TB M&E Guidelines as government policy (2024) 10. Kyrgyz Republic DDPSSES revises annual epidemiologist training course to include IEPID content 11. Kyrgyz Republic NCPh builds capacity of new DSD&IC to strengthen TB M&E and research 12. Thematic Working Group (TWG) on TB Surveillance and M&E for Coordinated Planning and Action established in Kyrgyz Republic Nigeria 13. Nigeria LONs (KNCV and IHVN) integrated PBMEF into reporting		
B4. Number of instances of M&E technical support or capacity	0	0	0	6	**1**	1. COE supports development of WHO/Europe e-learning course for updated WHO TB surveillance guidelines	**7**	>2

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
strengthening provided by a COE to TB stakeholders								
B5. Number of countries that entered high-quality data on all 10 core PBMEF indicators	0	0	0	10	**0**	*In 2024, TB DIAH was not involved with assisting USAID to collect TB Roadmap data on PBMEF indicators from the Missions.*	**10**	12
B6. Proportion of informational products developed or updated by TB DIAH used by a TB stakeholder[7]	0.0% (0/15)	3.8% (1/26)	1.6% (1/64)	3.3% (3/92)	**7.1% (8/113)**	Data Hub webpages 1. Malawi-based hospital system links to the TB Data Hub for Malawi-specific data 2. Providing for Health (P4H) Social Health Protection Network lists the TB Data Hub with a link to dashboards under their data tools resource page 3. Article published in International Journal of Tuberculosis and Lung Disease (IJTLD) cites the TB Data Hub Nigeria and Pakistan dashboards (Yassin et al., 2024) Knowledge Hub webpages 4. STOP TB Partnership and Global Fund online Digital TB Surveillance System Assessment Report cites/links the TB DIAH Knowledge Hub homepage as an informational resource in their landscaping of digital TB surveillance systems	**7.1% (8/113)**	10%

[7] In the Year 5 MEL Plan revisions, indicator B6 was split from use of all TB DIAH products into 3 separate indicators: B6: information products; B7: tools/guidance products; and B8: e-learning courses, training materials, and curricula.

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						support 5. USAID's LEAP Global links to the TB DIAH webinars page		
B7. Proportion of tools and guidance documents developed or updated by TB DIAH used by a TB stakeholder	0.0% (0/2)	0.0% (0/3)	7.1% (2/28)	10.9% (6/55)	**9.4% (9/96)**	PBMEF[8] 1. Kyrgyz Republic includes 21 PBMEF indicators in the updated National TB M&E Plan 2. Moldova NTP includes PBMEF Core indicators in the Moldova TB M&E Plan 3. Uzbekistan includes 5 PBMEF indicators in the new Global Fund proposal (February 2024) 4. Uzbekistan NTP includes PBMEF indicators in TB M&E Plan 5. Afghanistan's TB NSP includes 6 out of 10 PBMEF core indicators 6. Bangladesh's TB NSP includes 8 out of 10 PBMEF core indicators 7. Cambodia's TB NSP includes 5 out of 10 PBMEF core indicators 8. DRC's TB NSP includes 4 out of 10 PBMEF core indicators 9. Ethiopia's TB NSP includes 10 out of 10 PBMEF core indicators 10. India's TB NSP includes 6 out of 10 PBMEF core indicators 11. Indonesia's TB NSP includes 7 out of 10 PBMEF core indicators	**9.4% (9/96)**	20%

[8] Multiple uses of a single resource, such as the PBMEF, only count towards one instance when calculating proportion of products used by a stakeholder.

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						12. Kenya's TB NSP includes 10 out of 10 PBMEF core indicators 13. Kyrgyz Republic's TB NSP includes 9 out of 10 PBMEF core indicators 14. Malawi's TB NSP includes 8 out of 10 PBMEF core indicators 15. Mozambique's TB NSP includes 4 out of 10 PBMEF core indicators 16. Burma's TB NSP includes 9 out of 10 PBMEF core indicators 17. Nigeria's TB NSP includes 10 out of 10 PBMEF core indicators 18. Pakistan's TB NSP includes 3 out of 10 PBMEF core indicators 19. Philippines' TB NSP accompanying document on TB-HIV co-financing includes 5 out of 10 PBMEF core indicators 20. South Africa's TB NSP includes 7 out of 10 PBMEF core indicators 21. Tajikistan's TB NSP includes 1 out of 10 PBMEF core indicators 22. Tanzania's TB NSP includes 4 out of 10 PBMEF core indicators 23. Uganda's TB NSP includes 9 out of 10 PBMEF core indicators 24. Vietnam's TB NSP includes 9 out of 10 PBMEF core indicators 25. Zambia's TB NSP includes 9 out of 10 PBMEF core indicators Standard Operating Procedures (SOPs)		

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						26. Nigeria TB IPs use the SOP for Data Exchange: BTB APPR and Other Platforms Tools and Toolkits 27. GeneXpert Failed Modules Resolution Tracker used by Nigeria LONs 28. Nigeria LONs use biweekly performance review templates		
B8. Proportion of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support used by a TB stakeholder	0.0% (0/0)	0.0% (0/0)	0.0% (0/0)	16.7% (2/12)	**16.1% (5/31)**	Cambodia TB M&E e-learning 1. USAID's LEAP Global links to the M&E of TB Programs in Cambodia e-learning course Kyrgyz Republic TB M&E training curriculum 2. Kyrgyz Republic DSD&IC conducts oblast and district-level TB M&E trainings using TB DIAH materials TB DIAH e-learning portal 3. Bangladesh NTP TB NSP (2024-2030) links to TB DIAH e-learning portal 4. Tajikistan's NTP links to TB DIAH's e-learning portal in Russian 5. USAID's LEAP Global links to the TB DIAH e-learning portal TB DIAH's TB Contact Investigation for Frontline Workers e-learning course 6. STOP TB Partnership links to the TB DIAH TBCI FLW in their Resources Repository (2023) 7. WHO includes TBCI for FLW e-learning course in	**16.1% (5/31)**	80%

Outcome indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						"Roadmap towards ending TB in children and adolescents, third edition" (2023) 8. WHO includes TBCI for FLW e-learning course in "Feuille de route pour mettre fin à la tuberculose de l'enfant et de l'adolescent, Troisième édition" 9. PAHO includes TBCI for FLW e-learning course in "Hoja de ruta para poner fin a la tuberculosis en la población infantil y adolescente, Tercera edición" (2023) 10. WHO references TBCI for TLW in "WHO consolidated guidelines on tuberculosis: tuberculosis preventive treatment" and links to TB DIAH e-learning portal		

Table 5. Results by Impact Indicator through Year 5

Impact indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
C1. Number of countries that use TB M&E and surveillance data for TB program and/or policy decision making	0	0	0	1	**1**	Nigeria 1. Nigeria LONs decide to transition from Excel to DHIS2 for data reporting based on APPR TB data quality analyses	**2**	3

Impact indicator	Results by year					Year 5 results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
C2. Number of countries that demonstrate a change in the performance of a TB M&E and surveillance system	0	0	1	0	**1**	Nigeria 1. Nigeria improves TB M&E and surveillance by use of GeneXpert Failed Modules Resolution Tracker, resulting in faster response times to fix faulty modules	**1**	3

Appendix 6: Overall Project Results

Table 6. Overall Results by Output Indicator[9]

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
A1. Number of TB Data Hub resources (e.g., reporting tools, templates, and dashboards, etc.) developed/ updated by TB DIAH	2	4	9	13	1	TB Data Hub webpages and resources 1. TB Data Hub launched in March 2019 2. "How to Use the TB Data Hub" 3 pager 3. "Introduction to the TB DIAH Data Hub" video 4. TB Data Hub country landing pages (internal, log-in required) 5. TB Data Hub PBMEF indicator reference section 6. "An introduction to the new PBMEF section in the TB Data Hub" tutorial video Data Entry tools and updates 7. MESSA Tool 8. TB Prevention Indicator Assessment User Guide and Questionnaire in TB Data Hub 9. TB Prevention Indicator data entry tool on TB Data Hub (2020) 10. TB Roadmap Core Indicators data entry tool and instructions on the TB Data Hub (2020) 11. Digital TB D2AC Toolkit available on TB Data Hub 12. TB Roadmap Core Indicators Table 4 generating tool (2020) 13. ARC tool data entry form on the TB Data Hub 14. TB Prevention Indicator data entry tool and questionnaire updated in 2021	**29**	40

[9] The TB DIAH Year 5 Workplan was approved June 30, 2023, and the Addendum to the TB DIAH Year 5 Core Workplan approved August 23, 2024. The Year 5 results totals reflect the extended timeframe.

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						15. TB Roadmap Core Indicators data entry tool updated in 2021 16. TB Roadmap Core Indicators Table 4 generating tool updated in 2021 17. TB Prevention Indicator data entry tool updated in 2022 18. TB Roadmap Core Indicators data entry tool updated in 2022 19. TB Roadmap Core Indicators tool to generate table and charts updated in 2022 Data dashboards and visualizations 20. TB Data Hub country dashboards (external, public-facing) 21. Cascade visualizations in Contact Investigation Dashboard on TB Data Hub 22. Contact investigation dashboard on TB Data Hub 23. COVID-19 dashboard on TB Data Hub 24. Data explorer tool on the TB Data Hub 25. Drug-resistant TB dashboard on the TB Data Hub 26. Kyrgyz Republic subnational dashboards (English) on TB Data Hub 27. Kyrgyz Republic subnational dashboards (Russian) on TB Data Hub 28. PBMEF thematic dashboards on TB Data Hub 29. QTSA Explorer in TB Data Hub		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Note: Use of the TB Data Hub tools to submit TB Roadmap core indicator and prevention indicator data was phased out in 2023.		
A2. Number of assessments completed by or with support from TB DIAH	0	47	36	91	69	ARC Country Reports 1. Afghanistan Final ARC Report 2. Armenia Final ARC Report 3. Bangladesh Final ARC Report 4. Cambodia Final ARC Report 5. DRC Final ARC Report (English and French) 6. Ethiopia Final ARC Report 7. Georgia Final ARC Report 8. Haiti ARC Report (English and French) 9. India Final ARC Report 10. Indonesia Final ARC Report 11. Kenya Final ARC Report 12. Kyrgyz Republic Final ARC Report 13. Malawi Final ARC Report 14. Moldova Final ARC Report 15. Mozambique Final ARC report 16. Nigeria Final ARC report 17. Pakistan Final ARC Report 18. Philippines Final ARC Report 19. South Africa Final ARC Report 20. Tajikistan Final ARC Report 21. Tanzania Final ARC Report 22. Uganda Final ARC Report 23. Ukraine Final ARC Report	**243**	91

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						24. Uzbekistan Final ARC Report 25. Vietnam Final ARC Report 26. Zambia Final ARC Report 27. Zimbabwe Final ARC Report D2AC Assessments 28. Bangladesh D2AC Assessment for (country report on implementation) 29. Ghana D2AC Assessment (country report on field test) 30. Haiti D2AC Assessment (English and French) 31. Kyrgyz Republic D2AC Assessment 32. Nigeria D2AC Assessment (country report on field test) 33. Uzbekistan D2AC Assessment MESSA Country Profiles 34. Afghanistan MESSA Profile 35. Armenia MESSA Profile 36. Bangladesh MESSA Profile 37. Burma MESSA Profile 38. Cambodia MESSA Profile 39. DRC MESSA Profile 40. Ethiopia MESSA Profile 41. Georgia MESSA Profile 42. India MESSA Profile 43. Indonesia MESSA Profile 44. Kenya MESSA Profile 45. Kyrgyz Republic MESSA Profile		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						46. Malawi MESSA Profile 47. Moldova MESSA Profile 48. Mozambique MESSA Profile 49. Nigeria MESSA Profile 50. Pakistan MESSA Profile 51. Philippines MESSA Profile 52. South Africa MESSA Profile 53. Tajikistan MESSA Profile 54. Tanzania MESSA Profile 55. Uganda MESSA Profile 56. Ukraine MESSA Profile 57. Uzbekistan MESSA Profile 58. Vietnam MESSA Profile 59. Zambia MESSA Profile 60. Zimbabwe MESSA Profile Nigeria TB Situation Room (TBSR) Needs Assessments 61. TBSR Needs Assessment for national/HQ level in Abuja, Nigeria 62. TBSR Needs Assessment for Anambra State, Nigeria 63. TBSR Needs Assessment for Kano State, Nigeria 64. TBSR Needs Assessment for Lagos State, Nigeria 65. TBSR Needs Assessment for Osun State, Nigeria PBMEF Core Indicator Assessments 2020 (2019 data) 66. Afghanistan PBMEF Core Indicator Assessment 67. Bangladesh PBMEF Core Indicator Assessment 68. Cambodia PBMEF Core Indicator Assessment 69. DRC PBMEF Core Indicator Assessment		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						70. Ethiopia PBMEF Core Indicator Assessment 71. India PBMEF Core Indicator Assessment 72. Indonesia PBMEF Core Indicator Assessment 73. Kenya PBMEF Core Indicator Assessment 74. Kyrgyz Republic PBMEF Core Indicator Assessment 75. Nigeria PBMEF Core Indicator Assessment 76. Philippines PBMEF Core Indicator Assessment 77. South Africa PBMEF Core Indicator Assessment 78. Tajikistan PBMEF Core Indicator Assessment 79. Vietnam PBMEF Core Indicator Assessment 80. Zambia PBMEF Core Indicator Assessment 81. Zimbabwe PBMEF Core Indicator Assessment PBMEF Core Indicator Assessments 2022 (2021 data) 82. Afghanistan PBMEF Core Indicator Assessment 83. Bangladesh PBMEF Core Indicator Assessment 84. Burma PBMEF Core Indicator Assessment 85. Cambodia PBMEF Core Indicator Assessment 86. DRC PBMEF Core Indicator Assessment 87. Ethiopia PBMEF Core Indicator Assessment 88. India PBMEF Core Indicator Assessment 89. Indonesia PBMEF Core Indicator Assessment 90. Kenya PBMEF Core Indicator Assessment 91. Kyrgyz Republic PBMEF Core Indicator Assessment 92. Malawi PBMEF Core Indicator Assessment 93. Mozambique PBMEF Core Indicator Assessment 94. Nigeria PBMEF Core Indicator Assessment 95. Pakistan PBMEF Core Indicator Assessment 96. Philippines PBMEF Core Indicator Assessment		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						97. South Africa PBMEF Core Indicator Assessment 98. Tajikistan PBMEF Core Indicator Assessment 99. Tanzania PBMEF Core Indicator Assessment 100. Uganda PBMEF Core Indicator Assessment 101. Ukraine PBMEF Core Indicator Assessment 102. Uzbekistan PBMEF Core Indicator Assessment 103. Vietnam PBMEF Core Indicator Assessment 104. Zambia PBMEF Core Indicator Assessment 105. Zimbabwe PBMEF Core Indicator Assessment Prevention Indicator Assessment 2020 (2019 data) 106. Afghanistan Prevention Indicator Assessment 107. Bangladesh Prevention Indicator Assessment 108. Burma Prevention Indicator Assessment 109. Cambodia Prevention Indicator Assessment 110. DRC Prevention Indicator Assessment 111. Ethiopia Prevention Indicator Assessment 112. India Prevention Indicator Assessment 113. Indonesia Prevention Indicator Assessment 114. Kenya Prevention Indicator Assessment 115. Kyrgyz Republic Prevention Indicator Assessment 116. Malawi Prevention Indicator Assessment 117. Mozambique Prevention Indicator Assessment 118. Nigeria Prevention Indicator Assessment 119. Philippines Prevention Indicator Assessment 120. South Africa Prevention Indicator Assessment 121. Tajikistan Prevention Indicator Assessment 122. Tanzania Prevention Indicator Assessment 123. Uganda Prevention Indicator Assessment		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						124. Ukraine Prevention Indicator Assessment 125. Uzbekistan Prevention Indicator Assessment 126. Vietnam Prevention Indicator Assessment 127. Zambia Prevention Indicator Assessment 128. Zimbabwe Prevention Indicator Assessment Prevention Indicator Assessment 2021 (2020 data) 129. Afghanistan Prevention Indicator Assessment 130. Bangladesh Prevention Indicator Assessment 131. Burma Prevention Indicator Assessment 132. Cambodia Prevention Indicator Assessment 133. DRC Prevention Indicator Assessment 134. Ethiopia Prevention Indicator Assessment 135. India Prevention Indicator Assessment 136. Indonesia Prevention Indicator Assessment 137. Kenya Prevention Indicator Assessment 138. Kyrgyz Republic Prevention Indicator Assessment 139. Malawi Prevention Indicator Assessment 140. Mozambique Prevention Indicator Assessment 141. Nigeria Prevention Indicator Assessment 142. Philippines Prevention Indicator Assessment 143. South Africa Prevention Indicator Assessment 144. Tajikistan Prevention Indicator Assessment 145. Tanzania Prevention Indicator Assessment 146. Uganda Prevention Indicator Assessment 147. Ukraine Prevention Indicator Assessment 148. Uzbekistan Prevention Indicator Assessment 149. Vietnam Prevention Indicator Assessment 150. Zambia Prevention Indicator Assessment		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						151. Zimbabwe Prevention Indicator Assessment Prevention Indicator Assessment 2022 (2021 data) 152. Afghanistan Prevention Indicator Assessment 153. Bangladesh Prevention Indicator Assessment 154. Cambodia Prevention Indicator Assessment 155. DRC Prevention Indicator Assessment 156. Ethiopia Prevention Indicator Assessment 157. India Prevention Indicator Assessment 158. Indonesia Prevention Indicator Assessment 159. Kenya Prevention Indicator Assessment 160. Kyrgyz Republic Prevention Indicator Assessment 161. Malawi Prevention Indicator Assessment 162. Mozambique Prevention Indicator Assessment 163. Nigeria Prevention Indicator Assessment 164. Pakistan Prevention Indicator Assessment 165. Philippines Prevention Indicator Assessment 166. South Africa Prevention Indicator Assessment 167. Tajikistan Prevention Indicator Assessment 168. Tanzania Prevention Indicator Assessment 169. Uganda Prevention Indicator Assessment 170. Ukraine Prevention Indicator Assessment 171. Uzbekistan Prevention Indicator Assessment 172. Vietnam Prevention Indicator Assessment 173. Zambia Prevention Indicator Assessment 174. Zimbabwe Prevention Indicator Assessment TB Roadmap M&E and Annual Reports Review 2023 (2022 provisional data)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						175. Afghanistan TB Roadmap Review 2023 176. Bangladesh TB Roadmap Review 2023 177. Burma TB Roadmap Review 2023 178. Cambodia TB Roadmap Review 2023 179. DRC TB Roadmap Review 2023 180. Ethiopia TB Roadmap Review 2023 181. India TB Roadmap Review 2023 182. Indonesia TB Roadmap Review 2023 183. Kenya TB Roadmap Review 2023 184. Kyrgyz Republic TB Roadmap Review 2023 185. Malawi TB Roadmap Review 2023 186. Mozambique TB Roadmap Review 2023 187. Nigeria TB Roadmap Review 2023 188. Philippines TB Roadmap Review 2023 189. South Africa TB Roadmap Review 2023 190. Tajikistan TB Roadmap Review 2023 191. Tanzania TB Roadmap Review 2023 192. Uganda TB Roadmap Review 2023 193. Uzbekistan TB Roadmap Review 2023 194. Vietnam TB Roadmap Review 2023 195. Zambia TB Roadmap Review 2023 196. Zimbabwe TB Roadmap Review 2023 TB Roadmap M&E and Annual Reports Review 2024 (2022 data) 197. Afghanistan TB Roadmap Review 2024 198. Bangladesh TB Roadmap Review 2024 199. Burma TB Roadmap Review 2024 200. Cambodia TB Roadmap Review 2024		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						201. DRC TB Roadmap Review 2024 202. Ethiopia TB Roadmap Review 2024 203. India TB Roadmap Review 2024 204. Indonesia TB Roadmap Review 2024 205. Kenya TB Roadmap Review 2024 206. Kyrgyz Republic TB Roadmap Review 2024 207. Malawi TB Roadmap Review 2024 208. Mozambique TB Roadmap Review 2024 209. Nigeria TB Roadmap Review 2024 210. Pakistan TB Roadmap Review 2024 211. Philippines TB Roadmap Review 2024 212. South Africa TB Roadmap Review 2024 213. Tajikistan TB Roadmap Review 2024 214. Tanzania TB Roadmap Review 2024 215. Uganda TB Roadmap Review 2024 216. Ukraine TB Roadmap Review 2024 217. Uzbekistan TB Roadmap Review 2024 218. Vietnam TB Roadmap Review 2024 219. Zambia TB Roadmap Review 2024 220. Zimbabwe TB Roadmap Review 2024 QTSA reports 221. Afghanistan QTSA 222. DRC QTSA 223. Vietnam QTSA Additional Assessments 224. USAID Missions Social Media channels investigation (2020)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						225. Cambodia TB M&E Capacity Assessment (July - Aug 2021) 226. Kyrgyz Republic TB M&E Capacity Assessment (English and Russian) 227. Nigeria National Electronic TB Information Management System (NETIMS) Assessment 228. Situational Analysis in TB Research in Cambodia (English and Khmer) 229. Cambodia TB-MIS Landscape Analysis 230. DRC DHIS2 Capacity Assessment 231. Mid-project Performance Evaluation for the Cure TB Project and USAID/Kyrgyz Republic 232. Nigeria Harmonized Data Quality Assessment (Anambra, Kano, Lagos, Nasarawa, and Oyo States, 2022) 233. Technical Landscape Assessment for Nigeria 234. Data quality review (DQR) report for Kasaï-Oriental Province, DRC 235. DRC DQR Report (English and French) 236. Kyrgyz Republic National TB Program Website Transparency Assessment 237. Nigeria NTBLCP Website Landscape Assessment 238. Uzbekistan TB M&E and Surveillance System Landscape Assessment 239. Armenia Health Management Information System (HMIS) Assessment 240. Georgia Health Management Information System (HMIS) Assessment		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						241. Research and Evaluation Capacity (RECAP) Assessment[10] of Kyrgyz Republic Department of Strategic Cooperation and International Cooperation (DSD&IC) 242. Kyrgyz Republic IEPID Assessment 243. Kyrgyz Republic M&E and Surveillance Capacity Assessment of the DDPSSES		
A3. Number of field-funded TB M&E and surveillance strengthening activities (12+ months in length) completed	0	0	0	0	5	6. Afghanistan QTSA Activity 7. Cambodia TA Activity 8. DRC TA Activity 9. Kyrgyz Republic TA activity 10. Nigeria TA Activity *Note: The field-funded activity for Uzbekistan was 11 months in length.*	**5**	5
A4. Number of Centers of Excellence (COEs) established	0	0	0	1	0	1. Center of Excellence for the Eastern Europe and Eurasia (EE) Region	**1**	1
A5. Number of countries that requested support from TB DIAH for PBMEF reporting	0	1	4	7	0	The TB Data Hub Help Desk provided additional support to submit data on the TB Roadmap Core Indicators using the TB Data Hub 1. Afghanistan, 2020 and 2021 data	**10**[11]	13

[10] Data for Impact (D4I) Project, 2022. (https://www.data4impactproject.org/resources/recap/)

[11] Afghanistan and Uzbekistan were supported to enter their 2020 and 2021 data in both Year 3 and Year 4 for an overall total of 10 countries.

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						2. Bangladesh, 2021 data 3. Cambodia, 2020 data 4. DRC, 2021 data 5. Uzbekistan, 2020 and 2021 data 6. Zambia, 2020 data The TB Data Hub Help Desk provided additional support to support to submit data on the TB Prevention Indicators using the TB Data Hub 7. Uganda, 2020 data Other Help Desk support for data reporting on the Data Hub 8. Help Desk supported Kyrgyz Republic to correct core indicator data entered for 2020 9. Help Desk responded to email from USAID/India requesting support using the TB Data Hub 10. Help Desk responded to email from USAID/Nigeria requesting support for reporting 2022 TB Roadmap data		
A6. Number of informational products developed or updated by TB DIAH[12]	15	11	38	28	21	Briefs, factsheets, FAQs, and one-, two-, and four-pagers 1. "Accelerating Access to Interactive, Action-Ready TB Data" one-pager 2. "Prioritizing Data for Decision Making to End Tuberculosis" one-pager 3. TB DIAH one-pager developed for USAID missions	**113**	125

[12] In the Year 5 MEL Plan revisions, indicator A6 was split from containing all TB DIAH products into 3 separate indicators: A6: information products; A7: tools/guidance products; and A8: e-learning courses, training materials, and curricula.

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						4. USAID one-pager on the Global Accelerator to End TB for the 50th Union Conference (2019) 5. TB DIAH one-pager for the TB Data SIG 6. QTSA options/FAQ document 7. PBMEF two-page overview (English) 8. PBMEF two-page overview (French) 9. PBMEF two-page overview (Portuguese) 10. PBMEF two-page overview (Russian) 11. PBMEF four-page overview (English) 12. PBMEF four-page overview (French) 13. PBMEF four-page overview (Portuguese) 14. PBMEF four-page overview (Russian) 15. PBMEF FAQ (English) 16. ARC Tool Brief (English) 17. ARC Tool Brief (French) 18. ARC Tool Brief (Portuguese) 19. ARC Tool Brief (Russian) 20. ARC Tool FAQ (English) 21. ARC Tool FAQ (French) 22. ARC Tool FAQ (Portuguese) 23. ARC Tool FAQ (Russian) 24. Afghanistan country two-pager (Year 3) 25. Cambodia country two-pager (Year 3) 26. DRC country two-pager (Year 3) 27. EE Region two-pager (Year 3) 28. Kyrgyz Republic country two-pager (Year 3) 29. Nigeria country two-pager (Year 3) 30. Afghanistan country two-pager (Year 4) 31. Cambodia country two-pager (Year 4)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						32. DRC country two-pager (Year 4) 33. EE Region two-pager (Year 4) 34. Kyrgyz Republic country two-pager (Year 4) 35. Nigeria country two-pager (Year 4) 36. D2AC two-page overview (English, French, Portuguese, Russian) 37. "E-learning courses to promote active TB case finding" Fact sheet and flyers for the 54th Union Conference (2023) 38. "Successes and Challenges with Monitoring and Evaluating Tuberculosis (TB) Programs in Select African Countries" Africa Regional Workshop program brief 39. Updated PBMEF FAQ (2024) E-Newsletters 40. TB DIAH Digest e-newsletter April 2022 41. TB DIAH Digest e-newsletter April 2023 42. TB DIAH Digest e-newsletter Dec 2019 43. TB DIAH Digest e-newsletter Jan 2023 44. TB DIAH Digest e-newsletter July 2021 45. TB DIAH Digest e-newsletter June 2020 46. TB DIAH Digest e-newsletter Mar 2020 47. TB DIAH Digest e-newsletter Mar 2021 48. TB DIAH Digest e-newsletter Nov 2020 49. TB DIAH Digest e-newsletter Nov 2022 50. TB DIAH Digest e-newsletter Oct 2019 51. TB DIAH Digest e-newsletter Oct 2021 52. TB DIAH Monthly Bulletin e-newsletter Feb 2024		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Infographics 53. DRC QTSA infographic (English) 54. DRC QTSA infographic (French) 55. QTSA data and patient centered care in Afghanistan infographic 56. QTSA data and patient centered care in Ethiopia infographic 57. QTSA data and patient centered care in the Philippines infographic 58. QTSA data and patient centered care in Uganda infographic 59. "Contact Investigation: Identifying TB Contacts. QTSA Country Surveys (2019-2023)" infographic (2024) News Stories 60. "Data Hub Provides Visualization for Decision Making" news story 61. "Global Panel Shares Tuberculosis Data Successes and Challenges" news story 62. "Union Conference Attendees Share How They Use Tuberculosis Data" news story 63. "USAID and Partners Celebrate Successful First Year of Accelerating Efforts to End TB" news story 64. "Using Cascades for Analyzing and Understanding the Success of Tuberculosis Programs" news article 65. "What We're Reading on TB and COVID-19" news article		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						66. "The Global Accelerator to End TB—Powerfully Combining Data and Technical Assistance" news story 67. "Fighting TB starts with data" news story Success Stories 68. COE success story "Eastern Europe and Central Asia Regional Training in TB Monitoring and Evaluation and Surveillance Capacity Strengthening for National TB Programs" 69. COE success story "TB DIAH Project Establishes a Critical Partnership with Tuberculosis Control Program in Georgia" 70. COE success story "TB DIAH's Center of Excellence Catalyzes Country Engagement in Tuberculosis" 71. COE success story "Eastern Europe Regional Training of Trainers in TB Monitoring and Evaluation and Surveillance Capacity Strengthening" 72. COE success story "Supercharge TB Monitoring and Evaluation Knowledge with the Power of AI" 73. "Advancing Operational Research to Stop TB in the Democratic Republic of the Congo" success story 74. "Tuberculosis Monitoring and Evaluation Trainings in Democratic Republic of Congo" success story 75. "Supporting National Tuberculosis Programs with TB DIAH's Assessment of Data Collection, Reporting, and Analysis Capacity (ARC) Tool" Data Hub ARC success story		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Publications and Presentations 76. TB DIAH PowerPoint presentation developed for USAID Missions (July 2019) 77. “Pathway for TB care seeking and treatment: A multi-country analysis among tuberculosis patients in Ethiopia, the Philippines, and Uganda” QTSA Poster at 51st Union Conference (2020) 78. "Research gaps in transforming tuberculosis data to action for better health outcomes: A systematic literature review" published in the Journal of Global Health (2021) 79. "Data-to-Action Continuum: Introduction to the D2AC Model and Toolkit" e-poster at the 53rd Union Conference (2022) 80. "Improving TB monitoring, evaluation, and surveillance with a virtual center of excellence model" e-poster for the 53rd Union Conference (2022) 81. “Are TB Patients Receiving Patient-Centered Care?: A Multi-country Comparison” QTSA poster at Health Systems Research Conference (2022) 82. “Development and expert validation of a ‘Data-to-Action Continuum’ to measure and advance the data-use capabilities of national tuberculosis programs” article published in the Journal of Global Health Reports (December 5, 2022) Reports 83. ARC Data Analysis of Vietnam’s TB M&E System’s Strengths, Challenges and Opportunities Report		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						84. QTSA Uganda TB diagnostic services availability and readiness analysis report 85. Summary findings of 65 IP MEL Plans Alignment Review 86. Quarterly/annual performance analysis scorecards example (Q1 FY22) and TB LON performance analysis for Nigeria 87. Slide deck for monthly/quarterly analysis by TB DIAH Nigeria 88. "Factors Associated with Adherence to National Diagnostic Standards for Pulmonary Tuberculosis (PTB) in the Kyrgyz Republic" cross-sectional study 89. "Factors associated with the mortality of TB patients in treatment in diagnostic and treatment center in Haut-Katanga Province, DRC" operational research study report 90. "Report concerning the pilot study on factors associated with mortality of patients suffering from TB and under treatment in 11 diagnostic and treatment centers in the province of Lualaba from January - December 2021" operational research study report 91. 2022 Annual TB Surveillance Report, Kyrgyz Republic (Russian) 92. "Assessment of the electronic TB-MIS application in selected provinces in Cambodia" TB operational research manuscript written by CENAT with TB DIAH support (Eam et al., 2023) 93. "Factors associated with non-completion of tuberculosis prevention treatment: A mixed-method		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						operational study of programmatic implementation in Battambang province, Cambodia" TB operational research manuscript written by CENAT with TB DIAH support (Hak et al., 2023) Webpages 94. TB DIAH Knowledge Hub (formerly the Communications Repository) 95. PBMEF webpage on the TB DIAH Knowledge Hub 96. QTSA webpage on TB DIAH Knowledge Hub 97. Video webpage on TB DIAH Knowledge Hub 98. Webinar webpage on TB DIAH Knowledge Hub 99. Capacity strengthening webpage on TB DIAH Knowledge Hub 100. D2AC webpage on TB DIAH Knowledge Hub 101. Data visualizations series for use in social media, on TB Data Hub web page 102. TB DIAH global goods webpages (Centers of Excellence, NTP Websites, ARC, MESSA, and STEP) 103. COE website publicly available 104. TB DIAH e-learning platform (Moodle site) launched Additional Information Products 105. TB DIAH social media graphics for USAID (November 2019) 106. TB DIAH Postcards for the 50th Union Conference (2019) 107. TB DIAH Posters for the 50th Union Conference (2019)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						108. USAID Postcards for the 50th Union Conference (2019) 109. Final Afghanistan QTSA dataset 110. Final DRC QTSA dataset 111. "TB Data Situation Room: Empowering National Tuberculosis Programs and Stakeholders with Tuberculosis Data" concept note 112. Harmonized list of LGA and facility names used by different information systems in Nigeria 113. TB DIAH Nigeria Closeout Brochure		
A7. Number of tools and guidance documents developed or updated by TB DIAH	2	1	25	27	41	Country TB M&E, research, and training plans and guidance 1. Cambodia M&E plan (2021-2025) for new 2021-2030 NSP (English) 2. Cambodia M&E plan (2021-2025) for new 2021-2030 NSP (Khmer) 3. Cambodia Research Capacity Building Plan for CENAT Research Staff 4. DRC National Framework for TB M&E 5. National TB operational research agenda for DRC (French) 6. Updated (2022) TB M&E framework for DRC (French) 7. Terms of Reference (TOR) for the Thematic Working Group (TWG) on TB Surveillance and M&E for Coordinated Planning and Action (Russian) 8. Updated Kyrgyz Republic National TB M&E Plan 2022-2026	**96**	>74

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						9. Nigeria APPR User Guide and Change Management Process (CMP) Guide (2022) 10. Roadmap and action/investment plan for capacity building for Nigeria 11. Cambodia Guidelines for Conducting a Quarterly Performance Review Meeting 12. Cambodia National TB Research Guidelines and Protocols (English) 13. Cambodia National TB Research Guidelines and Protocols (Khmer) 14. DRC National Guidelines on Operational Research 15. Concept Note for Regional Training of Trainers in TB M&E for EEE Region 16. Costed STEP and Blueprint for Kyrgyz Republic 17. Kyrgyz Republic TB M&E Guidelines 18. Nigeria state-level dashboard user requirements guidance document 19. Tuberculosis Situation Room Management and Implementation Guidance 20. EE Region Center of Excellence (COE) TB M&E Technical Working Group (TWG) Terms of Reference (TOR) (English) 21. EE Region Center of Excellence (COE) TB M&E Technical Working Group (TWG) Terms of Reference (TOR) (Russian) 22. Funding Opportunities for DSD&IC/NTP, Kyrgyz Republic		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						23. "Concept Note: Strengthening the Implementation of the Electronic Tuberculosis Surveillance System, Uzbekistan" (October 2024) 24. Uzbekistan National M&E Plan (English) 25. Uzbekistan National M&E Plan (Russian) Global Assessment Tools and Guidance 26. Assessment of Data Collection, Reporting, and Analysis Capacity (ARC) Tool (English) 27. ARC Tool (French) 28. ARC Tool (Portuguese) 29. ARC Tool (Russian) 30. ARC Tool Guidance (English) 31. ARC Tool Guidance (French) 32. ARC Tool Guidance (Portuguese) 33. ARC Tool Guidance (Russian) 34. ARC Tool Video 35. Kyrgyz Republic TB M&E Capacity Assessment tool (English) 36. Kyrgyz Republic TB M&E Capacity Assessment tool (Russian) 37. Nigeria TB M&E Assessment (NETIMS) data collection tools and instruments 38. Cambodia TB M&E capacity assessment "lite" tool (English) 39. Cambodia TB M&E capacity assessment "lite" tool (Khmer) 40. TB Data-to-Action Continuum (D2AC) Toolkit (English) 41. D2AC Toolkit for field tests		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						42. D2AC Toolkit (French) 43. D2AC Toolkit (Russian) 44. Cambodia TB M&E pre-training assessment tool 45. QTSA global implementation guide 46. QTSA Global Tools Supplemental COVID-19 Module 47. Afghanistan QTSA tools 48. DRC QTSA tools (English) 49. DRC QTSA tools (French) 50. Vietnam QTSA tools (English and Vietnamese) PBMEF Tools and Guidance 51. TB Performance-Based M&E Framework (PBMEF) (version 1.0) 52. "Navigating Tuberculosis Indicators: A Guide for TB Programs" (PBMEF Guide) 53. PBMEF Guide (French) 54. PBMEF Guide (Portuguese) 55. PBMEF Guide (Russian) 56. PBMEF Guide (Spanish, draft) 57. MEL Plan Template for USAID TB IPs Protocols 58. MESSA data collection protocol 59. National TB data assessment protocol 60. Bacteriological coverage study protocol (English) 61. QTSA DRC protocol (English and French) 62. Uzbekistan TB M&E Landscape Analysis Protocol Standard Operating Procedures (SOPs)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						63. Nigeria SOP for Data Exchange: BTB APPR and Other Platforms 64. Kyrgyz Republic Data Review Meeting SOP (Russian) 65. Standard operating procedure (SOP) for Nigeria TBSRs 66. Standard operating procedures (SOPs) for downloading or pulling monthly data from existing systems into the Nigeria state-level dashboards 67. Communications SOPs for DSD&IC in Kyrgyz Republic 68. Kyrgyz Republic SOP for online verification of TB data (Russian) 69. SOP for National Epidemiological Data Review Meetings for Kyrgyz Republic DDPSSES TB Data Dashboards 70. Updated Comprehensive Access and Review Dashboard (CARD), Nigeria 71. Cambodia Operational District Level Health Facility Dashboard (English) 72. Cambodia Operational District Level Health Facility Dashboard (Khmer) 73. Customized state-level interactive dashboard for Kano State, Nigeria 74. Customized state-level interactive dashboard for Lagos State, Nigeria 75. Customized state-level interactive dashboard for Osun State, Nigeria		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Tools and Toolkits 76. Kyrgyz Republic Data Quality Review checklist (English) 77. Kyrgyz Republic Data Quality Review checklist (Russian) 78. WHO DQR toolkits translated and customized to the Cambodian context (Khmer) 79. Kyrgyz Republic Annual TB Surveillance Report customized templates (English) 80. Kyrgyz Republic Annual TB Surveillance Report customized templates (Russian) 81. Nigeria TB Automated Partners' Performance Reporting (APPR) platform 82. Weekly and monthly reporting template for Nigeria TB IPs 83. Cambodia Data Quality Review (DQR) checklist for OD District Supervisors (English) 84. Cambodia Data Quality Review (DQR) checklist for OD District Supervisors (Khmer) 85. Cambodia M&E Plan Indicator Checklist (English) 86. Cambodia M&E Plan Indicator Checklist (Khmer) 87. Decision support tool to import TB data into Kyrgyz Republic dashboards 88. Integrated Supportive Supervision Checklist for Nigeria NTBLCP 89. Nigeria Excel-based coaching and mentoring tool 90. Nigeria GeneXpert Failed Modules Resolution Tracker 91. Kyrgyz Republic IEPID Assessment Tool (Russian)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						92. MELVIN AI chatbot on COE Website Other guidance documents 93. Updated TB Data Hub design document (Year 2) 94. TB DIAH Gender Strategy 95. Updated TB Data Hub design document (Year 3) 96. Updated TB Data Hub design document (Year 4)		
A8. Number of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support	0	0	0	12	19	Country training materials and curricula 1. CENAT e-learning platform (English) 2. CENAT e-learning platform (Khmer) 3. Online TB M&E course for Cambodia (English) 4. Online TB M&E course for Cambodia (Khmer) 5. DRC Generic M&E training curriculum 6. DRC TB M&E TOT curriculum (French) 7. DRC TB M&E training curriculum for provincial-level trainings (French) 8. TB M&E training curriculum for TOT in Kyrgyz Republic 9. Nigeria TB surveillance and M&E training curriculum and facilitator's guide 10. TB M&E training curriculum for Armenia 11. Generic TB M&E training curriculum for EE Region (English) 12. Cambodia TB M&E and DQR training curriculum for OD supervisors 13. Cambodia TB Research Capacity training (5 modules) (English)	**31**	>16

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						14. Cambodia TB Research Capacity training (5 modules) (Khmer) 15. Generic TB M&E training curriculum for EE Region (Russian) 16. TB M&E training curriculum for Georgia 17. TB M&E training curriculum for oblast/rayon level trainings in Kyrgyz Republic 18. Kyrgyz Republic DDPSESS seminar curriculum (Russian) 19. TOT training curriculum on TB M&E and surveillance for the subnational level of Kyrgyz Republic SES (English) 20. TOT training curriculum on TB M&E and surveillance for the subnational level of Kyrgyz Republic SES (Russian) 21. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar curriculum (English) 22. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar curriculum (Russian) TB DIAH e-learning courses 23. TBCI Frontline Worker e-learning course (English) 24. TBCI Frontline Worker e-learning course (French) 25. TBCI Frontline Worker e-learning course (Portuguese) 26. TBCI Frontline Worker e-learning course (Russian) 27. Finding TB Cases among People Living with HIV e-learning course (English)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						28. Finding TB Cases among People Living with HIV e-learning course (French) 29. Finding TB Cases among People Living with HIV e-learning course (Portuguese) 30. Finding TB Cases among People Living with HIV e-learning course (Russian) 31. TBCI for Program Managers e-learning course (English)		
A9. Number of dissemination events led or supported by TB DIAH which promote or distribute TB DIAH products and/or services	2	1	11	32	47	Assessment results presentations 1. Bangladesh ARC Results Presentation (Nov 2021) 2. India ARC Results Presentation (Sept 2021) 3. Indonesia ARC Results Presentation (December 2021) 4. Kyrgyz Republic ARC Results Presentation (Aug 2021) 5. PBMEF indicators included in Kyrgyzstan TB 6 (NSP) following TB DIAH ARC presentation 6. Vietnam ARC Results Presentation (September 2021) 7. "ARC Tool: Monitoring Program Sustainability" ARC Findings Presentation to USAID/Washington (July 2021) 8. Nigeria NTBLCP Website Landscape Assessment Findings and Recommendations (February 7, 2023) 9. Results and recommendations of the Nigeria National M&E Assessment Report assessment were shared with Global Fund by NTBLCP with TB DIAH support (September 2022)	**93**	>24

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						10. TB DIAH presented NETIMS assessment findings to NTBLCP, USAID/Nigeria, and WHO/Nigeria (April 1, 2022) 11. DRC QTSA dissemination activity (February 16, 2024) 12. DRC QTSA results presentation at the World Tuberculosis Day in Kinshasa (March 22, 2024) 13. Results from Surveillance and M&E Capacity and IEPID assessments presented to USAID/Kyrgyz Republic and GHS partners (July 31, 2024) Data review meetings 14. TB DIAH support to NTBLCP Quarterly Zonal Review Meetings in Nigeria (October 26-28, 2022) 15. DRC national review meeting (October 1-8, 2023) 16. DRC national review meeting (September 21-25, 2023) 17. DRC provincial review meeting (Haut Katanga, October 19-21, 2023) 18. DRC provincial review meeting (Haut Lomami, October 25-30, 2023) 19. DRC provincial review meeting (Kasai Central, November 13-15, 2023) 20. DRC provincial review meeting (Kasai Oriental, October 23-25, 2023) 21. DRC provincial review meeting (Lomami, October 16-19, 2023) 22. DRC provincial review meeting (Lualaba, October 23-28, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						23. DRC provincial review meeting (Sankuru, October 22-26, 2023) 24. DRC provincial review meeting (Sud Kivu, October 18-23, 2023) 25. DRC provincial review meeting (Tanganyika, October 20-25, 2023) 26. Kyrgyz Republic GHS Epidemiological Data Review Meeting 1 (June 14, 2024) 27. Kyrgyz Republic Tuberculosis Data Review Meetings Workshop Report (July 20-23, 2023) 28. Operational District Quarterly Performance Review Meeting, Takeo Province, Cambodia (October 30-31, 2023) 29. Operational District Quarterly Performance Review Meeting, Tbong Khmum Province, Cambodia (October 23-24, 2023) 30. TB DIAH presentation at Nigeria 2024 Q1 South West Zonal Review Meeting (April 28 - May 2, 2024) 31. Kyrgyz Republic GHS Epidemiological Data Review Meeting 2 (July 23, 2024) Nigeria State Tuberculosis and Leprosy Control Program (STBLCP) coaching and mentoring visits 32. Kano State (Sept 25 - Oct 1, 2022) 33. Akwa Ibom State (September 26-30, 2022) 34. Lagos State (October 4-7, 2022) 35. Lagos State (March 15-16, 2023) 36. Osun State (June 12-17, 2023) 37. Akwa Ibom State (June 19-23, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						38. Anambra State (June 21-23, 2023) 39. Lagos State (August 7-11, 2023) 40. Ogun State (December 14-15, 2023) 41. Anambra State (February 12-15, 2024) 42. Kano State (February 11-16, 2024) 43. Lagos State (April 2-6, 2024) 44. Anambra State (April 21-24, 2024) Union conference presentations 45. "Measuring TB Performance: TB Advisor Meeting" presentation at the 50th Union Conference (2019) 46. "The USAID Accelerator's investment in TB surveillance: transforming data into action" 50th Union Conference satellite session (2019) 47. "A 360° View of TB-Related Stigma in Uganda: Findings from a Mixed-Methods Study involving Perceptions from Patients, Providers, and Communities" QTSA presentation at 51st Union Conference (2020) 48. "Comparison of COVID-19-Related Tuberculosis Resource Reallocation in Afghanistan and Kyrgyzstan" QTSA poster and audio presentation for the online 52nd Union Conference (2021) 49. "Are People with TB Receiving Person-Centered Care?: A Multi-country Comparison" QTSA Presentation at the 53rd Union Conference (2022) 50. "Convergence and Divergence TB Treatment Support Services Between TB Health Facilities and People		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						with TB in Two East African Countries" Oral presentation at the 53rd Union Conference (2022) 51. "Implementing the Data-to-Action Continuum Toolkit in Ghana, Nigeria, the Kyrgyz Republic, and Bangladesh" Oral presentation at the 54th Union Conference (2023) 52. "Improving TB Data Quality with Interoperability and Data Exchange in Nigeria" Oral presentation at the 54th Union Conference (2023) 53. "The Automated Partners Progress Report (APPR): Strengthening Data-driven Approach to TB Case Notification in Nigeria" e-poster presentation at the 54th Union Conference (2023) Webinars 54. "Introducing TB DIAH's Data Hub" webinar (Oct. 13, 2022) 55. "Using a Virtual Center of Excellence Model for Strengthening TB Monitoring and Evaluation" webinar (March 21, 2023) 56. "Strengthening National TB M&E and Surveillance Systems: Tools for Understanding What to Aim For, Where to Start, and How to Get There" webinar (June 29, 2023) 57. "Data-to-Action Continuum (D2AC) Global Launch" webinar (Oct 19, 2023) 58. "Exploring the real-life uses of AI in designing and developing TB M&E training" webinar (November 2, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						59. "The Digital Transformation of TB Surveillance Systems: Practical Lessons and Country Perspectives" webinar (December 14, 2023) 60. "M&E Tools and Guidance Updates from USAID and WHO" webinar (February 20, 2024) 61. "Introducing the new USAID MEL Plan Template for USAID TB Program Activities" webinar (May 2, 2024) 62. "New Tools, Platforms and Resources for TB Data Capture, Visualization and Use" webinar (August 1, 2024)"Global Preview: TB PBMEF and TB M&E e-Learning Course" webinar (October 30, 2024) Workshops 63. QTSA Afghanistan data review meeting (June 30, 2021) 64. Field test workshop of D2AC Toolkit in Accra, Ghana (March 16-17, 2022) 65. “Innovations for Tackling Tuberculosis in the Time of COVID-19” (Two-part workshop held in January and September 2021 at the National Academy of Sciences) 66. Cambodia TB M&E Plan workshops for indicator finalization and target setting (Jan 25-27, 2023, and Feb 13, 2023) 67. Three TB-MIS Roadmap development workshops and a day of technical support to Cambodia CENAT (October 4-21, 2022) 68. DRC national workshop on TB operational research agenda-setting (Aug 2022)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						69. DRC PNLT workshop for customizing the training curriculum for the provincial level (August 2022) 70. DRC PNLT workshop for national training curriculum development (July 2022) 71. QTSA DRC data review and validation meeting (Nov. 17-18, 2022) 72. Haiti NTP, USAID, TB DIAH workshop, Washington, DC (November 14–16, 2022) 73. STEP Workshop in Kyrgyz Republic (Nov 10-11, 2022) 74. Field test workshop of the D2AC Toolkit in Abuja, Nigeria (April 20–21, 2022) 75. TBSR SOP development workshop in Uyo, Akwa-Ibom state, (Sept 8-10, 2022) 76. Three-day workshop with the Nigeria NTBLCP to review and finalize the NETIMS assessment report (February 2022) 77. Uzbekistan TB M&E and Surveillance System Assessment and M&E Prioritization and Action Planning Workshop (May 14-16, 2024) Other events and presentations 78. EE Region COE Founding Event (May 20, 2022) in Tbilisi, Georgia 79. National consultative meeting with Armenia (Oct 24-25, 2022) 80. EE Region COE Regional Consultative Meeting in Tbilisi, Georgia (July 28-29, 2022)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						81. EE Region COE Founding Event (May 20, 2022) in Tbilisi, Georgia 82. National consultative meeting with Azerbaijan (Oct 30-Nov 1, 2022) 83. Kyrgyz Republic subnational dashboard was presented during an internal meeting with the Cure TB project (August 23, 2022) and to NTP director (August 30, 2022). 84. The Kyrgyz Republic subnational dashboards on the TB Data Hub were presented to USAID IPs and MOH 85. National consultative meeting with Moldova (November 8-9, 2022) 86. TB DIAH presentation at Nigeria 2022 Q3 South West Zonal Review Meeting (October 26-28, 2022) 87. ARC Tool Presentation for TB Data SIG (January 18, 2022) 88. "TB DIAH Research Capacity Building Activities in Cambodia: 2022-2023" presentation to CENAT (November 2023) 89. Results of the bacteriological study was presented to the Kyrgyz Republic NTP and TB partners (March 20, 2024) 90. "Improving TB Data Quality with Interoperability and Data Exchange in Nigeria" presentation at the 3rd African Digital Health Summit in Lagos, Nigeria (June 2024) 91. “Digitization and Data Use: Using a TB Situation Room in Nigeria for Real-Time Decision Making"		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						presentation at the 3rd African Digital Health Summit in Lagos, Nigeria (June 2024) 92. TB DIAH Kyrgyz Republic Project Key Achievements presentation (September 18, 2024) 93. TB DIAH Nigeria Project Closeout Meeting (September 24, 2024)		
A10. Number of individuals reached through TB DIAH electronic media dissemination of TB information products	3,000 email subscribers 106 social media followers	5,600 email subscribers 440 social media followers	5,570 email subscribers 571 social media followers	2,766 email subscribers 728 social media followers (409 LinkedIn + 319 Twitter)	3,744 email subscribers 986 social media followers (637 LinkedIn + 349 Twitter)	Email subscribers: 3,744 LinkedIn followers: 637 Twitter followers: 349 Knowledge Hub visitors (pageviews/visitors): (42,450/14,543) TB Data Hub visitors (pageviews/visitors): (28,441/5,100)	**3,744 email subscribers** **986 social media followers (637 LinkedIn + 349 Twitter)**	2000 email subscribers 1000 social media followers
A11. Number of TB Data SIG meetings convened by TB DIAH	0	0	4	13	12	1. TB Data SIG Meeting (June 30, 2021) 2. TB Data SIG Meeting (September 14, 2021) 3. TB Data SIG Meeting (October 26, 2021) 4. TB Data SIG Meeting (November 16, 2021) 5. TB Data SIG Meeting (January 18, 2022) 6. TB Data SIG Meeting (February 15, 2022) 7. TB Data SIG Meeting (March 15, 2022) 8. TB Data SIG Meeting (April 19, 2022) 9. TB Data SIG Meeting (May 17, 2022) 10. TB Data SIG Meeting (June 28, 2022) 11. TB Data SIG Meeting (July 26, 2022) 12. TB Data SIG Meeting (September 28, 2022) 13. TB Data SIG Meeting (November 2, 2022)	**29**	34

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						14. TB Data SIG Meeting (December 6, 2022) 15. TB Data SIG Meeting (January 10, 2023) 16. TB Data SIG Meeting (February 14, 2023) 17. TB Data SIG Meeting (March 14, 2023) 18. TB Data SIG Meeting (April 11, 2023) 19. TB Data SIG Meeting (June 13, 2023) 20. TB Data SIG Meeting (August 8, 2023) 21. TB Data SIG Meeting (September 12, 2023) 22. TB Data SIG Meeting (October 10, 2023) 23. TB Data SIG Meeting (January 9, 2024) 24. TB Data SIG Meeting (February 13, 2024) 25. TB Data SIG Meeting (April 9, 2024) 26. TB Data SIG Meeting (May 14, 2024) 27. TB Data SIG Meeting (June 18, 2024) 28. TB Data SIG Meeting (September 12, 2024) 29. TB Data SIG Meeting (October 8, 2024)		
A12. Number of trainings conducted by, or with support of, TB DIAH	0	0	4	15	43	1. Cambodia TB M&E TOT for TB program and M&E staff 1 (Nov 10-17, 2021) 2. Orientation for Master Trainers for Cambodia TB M&E TOT 1 (March 2-4, 2022) 3. Orientation for Master Trainers for Cambodia TB M&E TOT 2 (November 4-6, 2021) 4. TB Data Management Bootcamp in Akwa Ibom State, Nigeria, for USAID/Nigeria IPs (November 22-26, 2021) (Year 3) 5. Eastern Europe and Central Asia Regional Training in TB Monitoring and Evaluation and Surveillance Capacity Strengthening for National TB Programs (Nov 30 - Dec 2, 2022)	**62**	>40

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						6. Cambodia TB M&E TOT for TB program and M&E staff 2 (March 7-13, 2022) 7. DRC national training-of-trainers (TOT) (Aug 8-10, 2022) 8. DRC QTSA TOT (March 21–April 2, 2022) 9. DRC QTSA provincial level training of data assessors (April 18-28, 2022) 10. TB M&E capacity building TOT for TB M&E and penitentiary system coordinators in Kyrgyz Republic (July 26-29, 2022) 11. Automated Partner Progress Reporting System (APPR) state level trainings for TB data management in Nigeria (March 2022) 12. Nigeria APPR Central Level Training-of-Trainers (March 7-11, 2022) 13. State level TB M&E cascade trainings for 35 states in Nigeria (June 6–July 1, 2022) 14. State TBSR orientation training in Kano State, Nigeria (Feb 13-18, 2023) 15. TB Data Management Bootcamp in Lagos State, Nigeria for USAID/Nigeria IPs (January 16-20, 2023) (Year 4) 16. TB M&E Training for Local Government Area TB & Leprosy Supervisors in Nigeria (Aug 15-19, 2022) (Training report) 17. TB M&E Training for Program Managers and M&E Officers in Nigeria (Training report) (June-July 2022)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						18. Technical capacity building on DHIS2 customization training and TA for IHVN in Lagos State, Nigeria (February 6-10, 2023) 19. Vietnam QTSA data collectors' training workshop (Feb 8-16, 2023) 20. National TB M&E training in Armenia (August 1-4, 2023) 21. Eastern Europe and Central Asia Regional Training in TB Monitoring and Evaluation and Surveillance Capacity Strengthening for National TB Programs (October 4-6, 2023) 22. EEE Regional TOT Training on TB M&E and surveillance (May 1-5, 2023) 23. Cambodia research capacity building workshop training "Basic Epidemiology and Research Ethics" (January 30-31, 2023) 24. Cambodia research capacity building workshop training "Research Protocol and Quantitative Research Methods" (March 6-7, 2023) 25. Cambodia research capacity building workshop training "Qualitative Research Methods and Data Analysis" training (March 9-10, 2023) 26. Cambodia research capacity building workshop training "Quantitative and Qualitative Data Analysis" (August 7-9 & 15-16, 2023) 27. Cambodia research capacity building workshop training "English Writing of Research Reports and Manuscripts" (September 28-29, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						28. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (March 28–30, 2023) 29. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (April 18–20, 2023) 30. TB M&E and DQR toolkit training session for OD TB supervisors in Cambodia (May 10–12, 2023) 31. Cascade training on quantitative and qualitative data analyses for Tanganyika Province DRC health department (June 6-10, 2023) 32. Cascade training on quantitative and qualitative data analyses for Sankuru province health department, DRC (June 15-19, 2023) 33. Cascade training on quantitative and qualitative data analyses for Lualaba province health department, DRC (August 1-5, 2023) 34. Cascade training on quantitative and qualitative data analyses for Haut-Lomami province health department, DRC (August 12-16, 2023) 35. Cascade training on quantitative and qualitative data analyses for Lomami province health department, DRC (Oct 23-27, 2023) 36. Cascade training on quantitative and qualitative data analyses for Sud Kivu province health department, DRC (Oct 31-Nov 4, 2023) 37. Cascade training on quantitative and qualitative data analyses for Kasai-Oriental province health department, DRC (Nov 1-5, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						38. Cascade training on quantitative and qualitative data analyses for Kasai-Central province health department, DRC (Nov 8-12, 2023) 39. National training on TB operational research for DRC PNLT and partners (September 2023) 40. Training for national TB program staff (DSNIS, DANTIC) (May 25-26, 2023) 41. Training on data management for PNLT (May 23-24, 2023) 42. Africa Region TB M&E and PBMEF training with USAID TB advisors, NTP staff, USAID-funded TB IPs, and other regional staff (April 16-19, 2024) 43. National TB M&E training in Georgia (July 17-19, 2023) 44. Kyrgyz Republic TB M&E Guidelines rollout seminar (June 19-21, 2024) 45. Kyrgyz Republic TB Subnational Dashboards training webinars (August 25, 2024) 46. Quality Management System (QMS) training 1 for Kyrgyz Republic DSD&IC (March 18-19, 2024) 47. Quality Management System (QMS) training 2 for Kyrgyz Republic DSD&IC (May 13-16, 2024) 48. TB Data Review Meetings Workshop (July 20-12, 2023) 49. Three-day seminar on TB surveillance for Kyrgyz Republic DDPSESS (May 23–25, 2023) 50. Capacity building training on Excel and PowerBI dashboard development for M&E team of the Lagos State, Nigeria, STBLCP (November 20 - 25, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						51. Capacity building training on Excel and PowerBI dashboard development for TB control team of Osun State, Nigeria, STBLCP (October 16 - 20, 2024) 52. Capacity building training on Excel for M&E team of the Anambra State, Nigeria, STBLCP (April 21 - 24, 2024) 53. M&E Capacity Building on Data Use and Program Management for LGTBLS in Three Priority States in Nigeria (Akwa Ibom, Kano, and Osun) (May 2023) 54. National TBSR orientation training for Nigeria NTBLCP (April 19-20, 2023) 55. State TBSR orientation training in Anambra State, Nigeria (June 21-23, 2023) 56. State TBSR orientation training in Lagos State, Nigeria (June 10-14, 2024) 57. State TBSR orientation training in Osun State, Nigeria (June 12 -17, 2023) 58. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) Training of Trainers (April 22-26, 2024) 59. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) pilot sites field staff training (May 6-9, 2024) 60. TA to Nigeria 2024 National TB Drug Resistance Survey (DRS) field staff training (May 29 - June 1, 2024) 61. Cascade training on quantitative and qualitative data analyses for Haut-Katanga province health department, DRC (August 8-12, 2023)		

Output indicators	Results by year					All project results	Result totals	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						62. "Improving the quality of data in the IEPID through regular monitoring and evaluation" SES training seminar (August 20-22, 2024)		

Table 7. Overall Results by Outcome Indicator

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
B1. Number of countries that utilized a TB Data Hub resource to produce a TB information product or resource (e.g., reports, visualizations, etc.)	0	23	23	23	1	1. The 23 TB priority countries used the TB Data Hub TB Roadmap tool to enter data for the 2020 TB Roadmap (2019 data), which generated Table 2 for their TB Roadmap in 2020. 2. The 23 TB priority countries used the TB Data Hub TB Roadmap tool to enter data for the 2021 TB Roadmap (2020 data), which generated Table 2 for their TB Roadmap in 2021. 3. Of the 24 TB priority countries, 23 countries[13] used the TB Data Hub TB Roadmap tool to enter data for the 2022 TB Roadmap (2021 data), which generated a Table 2 for their TB Roadmap in May 2022. 4. In Year 5, the TB Data Hub ARC tool was implemented in Pakistan at the sub-national level by IHSS and STAR Advisors	**24**	10

[13] Ukraine did not participate.

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
B2. Number of instances of use of post-assessment recommendations by a TB stakeholder following completion of an assessment completed by, or with support from, TB DIAH	23	23	24	46	52	ARC Country Reports 1. Kyrgyz Republic NTP used the ARC assessment results to revise the TB National Strategic Plan 2. Kyrgyz Republic ARC assessment results were used to update reporting and recording forms approved in 2021 D2AC Assessments 3. Bangladesh NTP implements findings and recommendations from the Bangladesh D2AC Nigeria TBSR Needs Assessments recommendations adopted by NTBLCP/STBLCPs 4. National TBSR Needs Assessment recommendations adopted by NTBLCP for the Nigeria national level TBSR 5. Kano State TBSR Needs Assessment recommendations adopted by Kano STBLCP 6. Anambra State TBSR Needs Assessment recommendations adopted by Anambra STBLCP 7. Lagos State TBSR Needs Assessment recommendations adopted by Lagos STBLCP 8. Osun State TBSR Needs Assessment recommendations adopted by Osun STBLCP PBMEF Core Indicator Assessments 2020 (2019 data) used by USAID to inform USAID Priority Country TB Roadmaps for 16 TB priority countries 9. Afghanistan	**145**	4

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						10. Bangladesh 11. Cambodia 12. DRC 13. Ethiopia 14. India 15. Indonesia 16. Kenya 17. Kyrgyz Republic 18. Nigeria 19. Philippines 20. South Africa 21. Tajikistan 22. Vietnam 23. Zambia 24. Zimbabwe PBMEF Core Indicator Assessments 2022 (2021 data) used by USAID to inform USAID Priority Country TB Roadmaps for 24 TB priority countries 25. Afghanistan 26. Bangladesh 27. Burma 28. Cambodia 29. DRC 30. Ethiopia 31. India 32. Indonesia 33. Kenya 34. Kyrgyz Republic 35. Malawi 36. Mozambique		

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						37. Nigeria 38. Pakistan 39. Philippines 40. South Africa 41. Tajikistan 42. Tanzania 43. Uganda 44. Ukraine 45. Uzbekistan 46. Vietnam 47. Zambia 48. Zimbabwe Prevention Indicator Assessments 2020 (2019 data) for 23 TB priority countries used by USAID for reporting to US Congress 49. Afghanistan 50. Bangladesh 51. Burma 52. Cambodia 53. DRC 54. Ethiopia 55. India 56. Indonesia 57. Kenya 58. Kyrgyz Republic 59. Malawi 60. Mozambique 61. Nigeria 62. Philippines 63. South Africa 64. Tajikistan		

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						65. Tanzania 66. Uganda 67. Ukraine 68. Uzbekistan 69. Vietnam 70. Zambia 71. Zimbabwe Prevention Indicator Assessment 2021 (2020 data) for 23 TB priority countries used by USAID for reporting to US Congress 72. Afghanistan 73. Bangladesh 74. Burma 75. Cambodia 76. DRC 77. Ethiopia 78. India 79. Indonesia 80. Kenya 81. Kyrgyz Republic 82. Malawi 83. Mozambique 84. Nigeria 85. Philippines 86. South Africa 87. Tajikistan 88. Tanzania 89. Uganda 90. Ukraine 91. Uzbekistan 92. Vietnam		

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						93. Zambia 94. Zimbabwe TB Roadmap M&E and Annual Reports Review 2023 (2022 provisional data) used by USAID to inform USAID priority Country TB Roadmaps for 22 TB priority countries 95. Afghanistan 96. Bangladesh 97. Burma 98. Cambodia 99. DRC 100. Ethiopia 101. India 102. Indonesia 103. Kenya 104. Kyrgyz Republic 105. Malawi 106. Mozambique 107. Nigeria 108. Philippines 109. South Africa 110. Tajikistan 111. Tanzania 112. Uganda 113. Uzbekistan 114. Vietnam 115. Zambia 116. Zimbabwe TB Roadmap M&E and Annual Reports Review 2024 (2022 data) used by USAID to inform USAID priority Country TB		

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Roadmaps for 24 TB priority countries 117. Afghanistan 118. Bangladesh 119. Burma 120. Cambodia 121. DRC 122. Ethiopia 123. India 124. Indonesia 125. Kenya 126. Kyrgyz Republic 127. Malawi 128. Mozambique 129. Nigeria 130. Pakistan 131. Philippines 132. South Africa 133. Tajikistan 134. Tanzania 135. Uganda 136. Ukraine 137. Uzbekistan 138. Vietnam 139. Zambia 140. Zimbabwe QTSA reports 141. Afghanistan NTP Star advisor presented the QTSA Afghanistan recommendations and findings to inform the Global Fund/UNDP grant proposal		

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Additional Assessments 142. NETIMS assessment findings are being used by NTBLCP to support establishment of a domestic electronic medical record (EMR) in Nigeria 143. NTBLCP and stakeholders developed and operationalized a roadmap in response to the findings and recommendations from the NETIMS Assessment 144. Kyrgyz Republic NTP updated their website based on recommendations from the TB DIAH NTP website report 145. Nigeria NTP Website Needs Assessment recommendations adopted by the Nigeria NTBLCP		
B3. Proportion of field-funded TB M&E and surveillance strengthening activities that result in a demonstrated change in a specific M&E and surveillance practice	0	0	0	0	4/5 (80%)	Cambodia 1. Cambodia adopts and implements updated Health Facility Monthly Reporting Forms to align with new NSP and improve data quality 2. Cambodia adopts the National TB M&E Plan as government policy 3. Cambodia adopts the TB Research Guidelines and Protocol as government policy DRC 4. DRC NPLT adopts Annual TB Surveillance Report as a routine TB surveillance practice 5. DRC PNLT adopts quarterly TB epidemiological bulletin as an M&E and surveillance practice 6. DRC PNLT establishes a national task force on TB M&E 7. DRC PNLT stores TB DHIS2 data in a server accessible to staff	**4/5 (80%)**	3/4 (75%)

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						Kyrgyz Republic 8. Kyrgyz Republic adopts National TB M&E Plan 2022-2026 as government policy (2023) 9. Kyrgyz Republic adopts TB M&E Guidelines as government policy (2024) 10. Kyrgyz Republic DDPSSES revises annual epidemiologist training course to include IEPID content 11. Kyrgyz Republic NCPh builds capacity of new DSD&IC to strengthen TB M&E and research 12. Thematic Working Group (TWG) on TB Surveillance and M&E for Coordinated Planning and Action established in Kyrgyz Republic Nigeria 13. Nigeria LONs (KNCV and IHVN) integrated PBMEF into reporting		
B4. Number of instances of M&E technical support or capacity strengthening provided by a COE to TB stakeholders	0	0	0	1	6	1. Armenia National Consultative Meeting (October 24-25, 2022) 2. Azerbaijan National Consultative Meeting (October 31 - November 1, 2022) 3. EEE Regional Consultative Meeting (July 28-29, 2022) 4. EEE Regional TOT for TB M&E and Surveillance Capacity Strengthening (May 1-5, 2023) 5. Georgia National Consultative Meeting (November 2022) 6. Moldova National Consultative Meeting (November 8-9, 2022) 7. COE supports development of WHO/Europe e-learning course for updated WHO TB surveillance guidelines	**7**	>2

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
B5. Number of countries that entered high-quality data on all 10 core PBMEF indicators	0	0[14]	0[15]	10	0	*Note: Use of the TB Data Hub tools to submit TB Roadmap core indicator and prevention indicator data was phased out in 2023. In 2024, TB DIAH was not involved with assisting USAID to collect TB Roadmap data on PBMEF indicators from the Missions.*	**10**	12
B6. Proportion of informational products developed or updated by TB DIAH used by a TB stakeholder[16]	0.0% (0/15)	3.8% (1/26)	1.6% (1/64)	3.3% (3/92)	7.1% (8/113)	TB Data Hub webpages 1. Malawi-based hospital system links to the TB Data Hub for Malawi-specific data 2. Providing for Health (P4H) Social Health Protection Network lists the TB Data Hub with a link to dashboards under their data tools resource page 3. Article published in International Journal of Tuberculosis and Lung Disease (IJTLD) cites the TB Data Hub Nigeria and Pakistan dashboards (Yassin et al., 2024) PBMEF resources and webpage 4. The Global Tuberculosis Institute announces the launch of the PBMEF on social media, linking to the PBMEF webpage (July 13, 2021) 5. SMART4TB Consortium includes PBMEF visual in a webinar, linking to the PBMEF webpage	**7.1% (8/113)**	10%

[14] 23 countries reported data into the TB Data Hub in Y2 however the data quality element of the indicator was not part of this indicator at that time and was applied in Y4.

[15] 23 countries reported data into the TB Data Hub in Y3, however the data quality element of the indicator was not part of this indicator at that time and was applied in Y4.

[16] In the Year 5 MEL Plan revisions, indicator B6 was split from use of all TB DIAH products into 3 separate indicators: B6: information products; B7: tools/guidance products; and B8: e-learning courses, training materials, and curricula.

Outcome indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						(February 7, 2023) Other Knowledge Hub webpages 6. STOP TB Partnership and Global Fund online Digital TB Surveillance System Assessment Report cites/links the TB DIAH Knowledge Hub homepage as an informational resource in their landscaping of digital TB surveillance systems support 7. USAID's LEAP Global links to the TB DIAH webinars page Other TB DIAH information products 8. The Kyrgyz Republic 2022 Annual TB Surveillance Report was distributed to regional TB centers for use during data review meetings by the NTP		

B7. Proportion of tools and guidance documents developed or updated by TB DIAH used by a TB stakeholder	0.0% (0/2)	0.0% (0/3)	7.1% (2/28)	10.9% (6/55)	9.4% (9/96)	Global Assessment Tools 1. Kyrgyz Republic implemented a capacity assessment tool developed in project Year 3 2. Cure TB project translated and used Global QTSA tools to conduct QTSA in Kyrgyz Republic PBMEF[17] 3. Cambodia includes 19 PBMEF indicators in the new Cambodia M&E plan (2021-2025) 4. AIS Learning Platform: A Collaborative Hub to Help End HIV and TB in Burma describes and links to the PBMEF Guide (February 10, 2023) 5. Nigeria LONs use PBMEF indicators in bi-weekly performance reviews 6. Kyrgyz Republic includes 21 PBMEF indicators in the updated National TB M&E Plan 7. Moldova NTP includes PBMEF Core indicators in the Moldova TB M&E Plan 8. Uzbekistan includes 5 PBMEF indicators in the new Global Fund proposal (February 2024) 9. Uzbekistan NTP includes PBMEF indicators in TB M&E Plan 10. Afghanistan's TB NSP includes 6 out of 10 PBMEF core indicators 11. Bangladesh's TB NSP includes 8 out of 10 PBMEF core indicators 12. Cambodia's TB NSP includes 5 out of 10 PBMEF core indicators 13. DRC's TB NSP includes 4 out of 10 PBMEF core indicators 14. Ethiopia's TB NSP includes 10 out of 10 PBMEF core indicators 15. India's TB NSP includes 6 out of 10 PBMEF core indicators	**9.4% (9/96)**	20%

[17] Multiple uses of a single resource, such as the PBMEF, only count towards one instance when calculating proportion of products used by a stakeholder.

						16. Indonesia's TB NSP includes 7 out of 10 PBMEF core indicators 17. Kenya's TB NSP includes 10 out of 10 PBMEF core indicators 18. Kyrgyz Republic's TB NSP includes 9 out of 10 PBMEF core indicators 19. Malawi's TB NSP includes 8 out of 10 PBMEF core indicators 20. Mozambique's TB NSP includes 4 out of 10 PBMEF core indicators 21. Burma's TB NSP includes 9 out of 10 PBMEF core indicators 22. Nigeria's TB NSP includes 10 out of 10 PBMEF core indicators 23. Pakistan's TB NSP includes 3 out of 10 PBMEF core indicators 24. Philippines' TB NSP accompanying document on TB-HIV co-financing includes 5 out of 10 PBMEF core indicators 25. South Africa's TB NSP includes 7 out of 10 PBMEF core indicators 26. Tajikistan's TB NSP includes 1 out of 10 PBMEF core indicators 27. Tanzania's TB NSP includes 4 out of 10 PBMEF core indicators 28. Uganda's TB NSP includes 9 out of 10 PBMEF core indicators 29. Vietnam's TB NSP includes 9 out of 10 PBMEF core indicators 30. Zambia's TB NSP includes 9 out of 10 PBMEF core indicators Standard Operating Procedures (SOPs) 31. Nigeria TB IPs use the SOP for Data Exchange: BTB APPR and Other Platforms Tools and Toolkits		

						32. M&E Assessment Checklist for Nigeria used to train field interviewers/assessors and configured into the ODK (KoBoCollect) for data collection in the 4 states (Lagos, Plateau, Kaduna, Enugu) 33. Data Quality review (DQR) checklist developed by TB DIAH being used routinely by oblast TB M&E coordinators in Kyrgyz Republic 34. STAR and Cure TB used results from TB DIAH data quality visits to conduct a data quality review workshop 35. GeneXpert Failed Modules Resolution Tracker used by Nigeria LONs 36. Nigeria LONs use biweekly performance review templates		
B8. Proportion of e-learning courses, training materials, curricula developed by TB DIAH or with TB DIAH support used by a TB stakeholder	0.0% (0/0)	0.0% (0/0)	0.0% (0/0)	16.7% (2/12)	16.1% (5/31)	Cambodia TB M&E e-learning 1. CENAT used TB DIAH TB M&E e-learning and hosts the training in Khmer on its website for staff 2. USAID's LEAP Global links to the M&E of TB Programs in Cambodia e-learning course Cambodia Operational District-level TB M&E training curriculum 3. COMMIT and CENAT used the OD level TB M&E training curriculum developed by TB DIAH Kyrgyz Republic TB M&E training curriculum 4. Kyrgyz Republic DSD&IC conducts oblast and district-level TB M&E trainings using TB DIAH materials TB DIAH e-learning portal 5. Bangladesh NTP TB NSP (2024-2030) links to TB DIAH e-learning portal 6. Tajikistan's NTP links to TB DIAH's e-learning portal in Russian 7. USAID's LEAP Global links to the TB DIAH e-learning portal	**16.1% (5/31)**	80%

						TB DIAH's TB Contact Investigation for Frontline Workers e-learning course 8. STOP TB Partnership links to the TB DIAH TBCI FLW in their Resources Repository (2023) 9. WHO includes TBCI for FLW e-learning course in "Roadmap towards ending TB in children and adolescents, third edition" (2023) 10. WHO includes TBCI for FLW e-learning course in "Feuille de route pour mettre fin à la tuberculose de l'enfant et de l'adolescent, Troisième édition" 11. PAHO includes TBCI for FLW e-learning course in "Hoja de ruta para poner fin a la tuberculosis en la población infantil y adolescente, Tercera edición" (2023) 12. WHO references TBCI for TLW in "WHO consolidated guidelines on tuberculosis: tuberculosis preventive treatment" and links to TB DIAH e-learning portal		

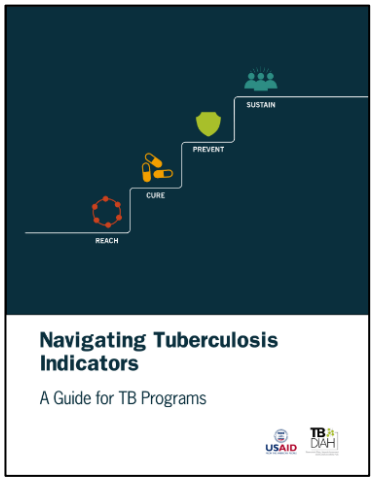
Table 8. Overall Results by Impact Indicator

Impact indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
C1. Number of countries that use TB M&E and surveillance data for TB program and/or policy decision making	0	0	0	1	1	Kyrgyz Republic 1. The USAID Cure TB project in Kyrgyz Republic used some preliminary QTSA results for setting NTP priorities in the development of the National Program Tuberculosis VI Nigeria	**2**	3

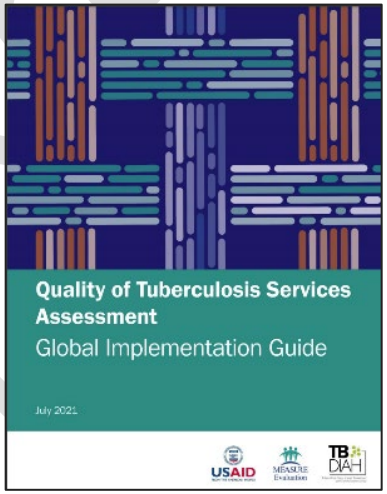
Impact indicator	Results by year					All project results	Result totals through Year 5	Life of the project targets
	Y1	Y2	Y3	Y4	Y5			
						2. Nigeria LONs decide to transition from Excel to DHIS2 for data reporting based on APPR TB data quality analyses		
C2. Number of countries that demonstrate a change in the performance of a TB M&E and surveillance system	0	0	1	0	1	Nigeria 1. TB DIAH contributions led to adoption of strengthened, detailed weekly Nigeria TB IP performance monitoring tool and approach 2. Nigeria improves TB M&E and surveillance by use of GeneXpert Failed Modules Resolution Tracker, resulting in faster response times to fix faulty modules	**1**	3

Appendix 7. Publicly Available Key Deliverables

PBMEF Navigating Tuberculosis Indicators – A Guide for TB Programs V 1.0 (English, French, Russian)

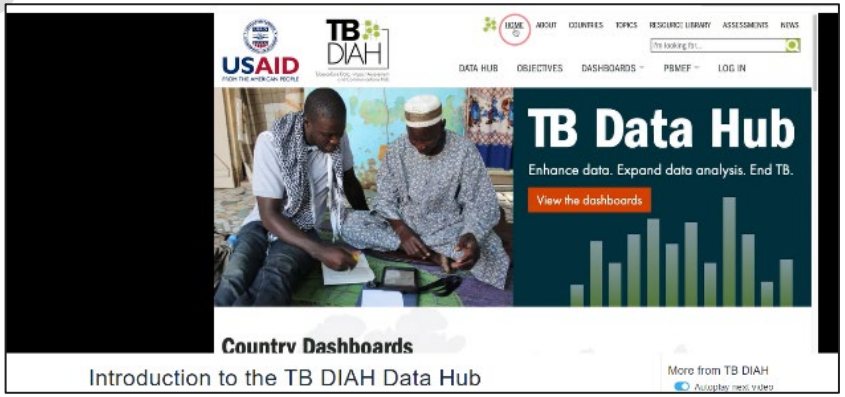


QTSA Global Implementation Guide

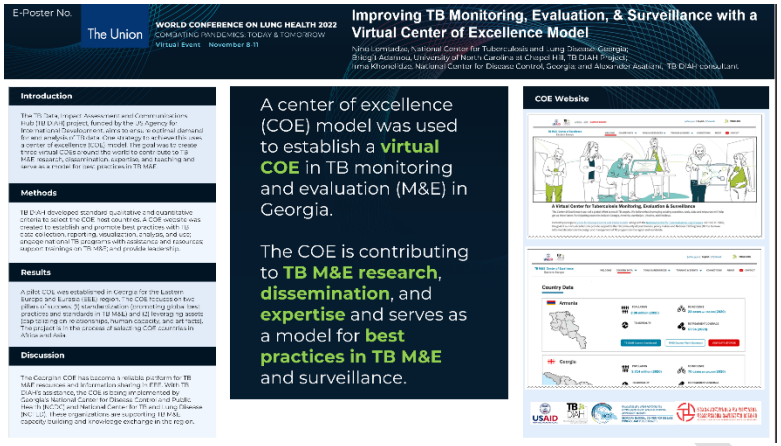


TB DIAH Gender Strategy

Video on TB Data Hub

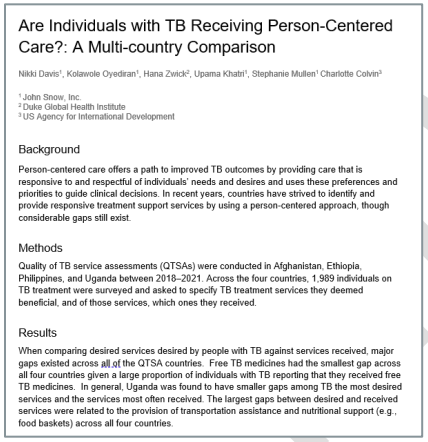


Center of Excellence (COE) poster for 53rd Union Conference: "Improving TB Monitoring, Evaluation, and Surveillance with a Virtual Center of Excellence Model"



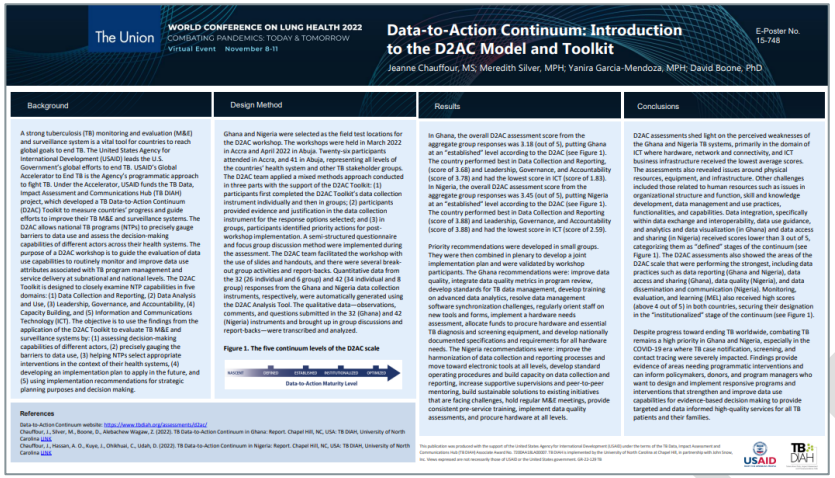
QTSA Union Conference presentation: "Convergence and Divergence TB Treatment Support Services between TB Health Facilities and People with TB in two East African Countries" (Oral Presentation)

QTSA abstract accepted for the Health Systems Research (HSR) 2022 Conference: "Are Individuals with TB Receiving Person-Centered Care?: A Multi-country Comparison" (poster presentation)



The D2AC team published their second peer-reviewed article on the Toolkit development process in the Journal of Global Health Reports

D2AC Union Conference presentation: "Data-to-Action Continuum: Introduction to the D2AC Model and Toolkit"



The Union
WORLD CONFERENCE ON LUNG HEALTH 2022
COMBATING PANDEMICS: TODAY & TOMORROW
Virtual Event November 8-11

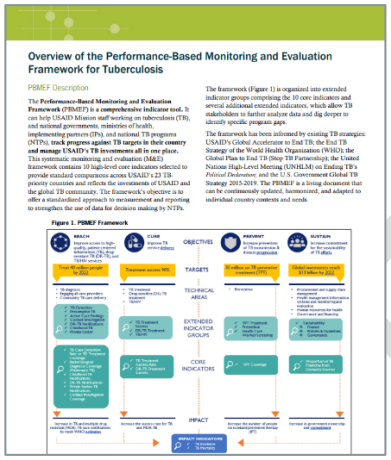
Data-to-Action Continuum: Introduction to the D2AC Model and Toolkit

E-Poster No. 15-748

Jeanne Chauffour, MS; Meredith Silver, MPH; Yanira Garcia-Mendoza, MPH; David Boone, PhD

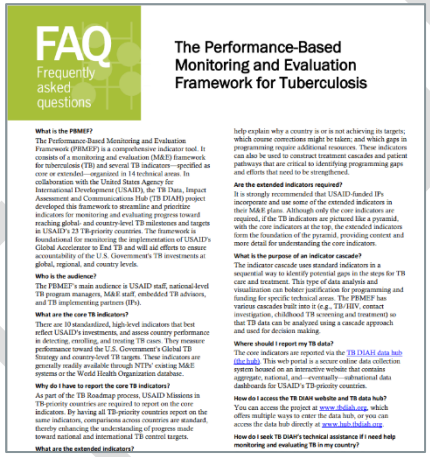
Background | Design Method | Results | Conclusions

Translations of all PBMEF materials (PBMEF guide, two-page brief, four-page brief, FAQ) in French, Portuguese, Russian



Overview of the Performance-Based Monitoring and Evaluation Framework for Tuberculosis

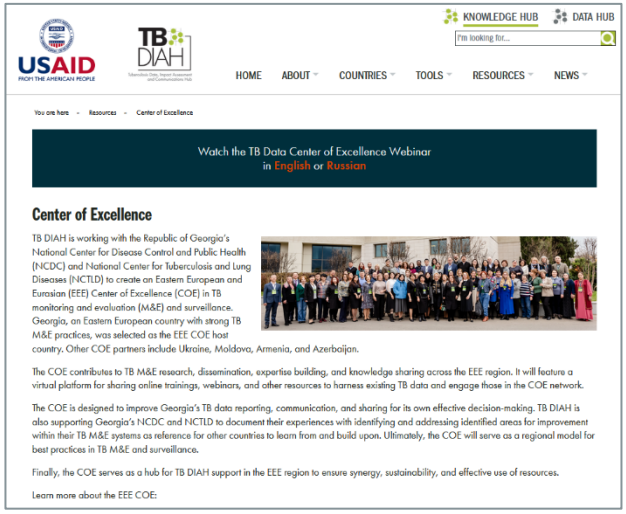
PBMEF Description



FAQ
Frequently asked questions

The Performance-Based Monitoring and Evaluation Framework for Tuberculosis

TB DIAH global goods webpages on Knowledge Hub (ARC, Center of Excellence, MESSA, NTP Website Transparency Activity, and STEP)



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KNOWLEDGE HUB DATA HUB
HOME ABOUT COUNTRIES TOOLS RESOURCES NEWS

Watch the TB Data Center of Excellence Webinar in English or Russian

Center of Excellence

TB DIAH is working with the Republic of Georgia's National Center for Disease Control and Public Health (NCDC) and National Center for Tuberculosis and Lung Diseases (NCTLD) to create an Eastern European and Eurasian (EEE) Center of Excellence (COE) in TB monitoring and evaluation (M&E) and surveillance. Georgia, an Eastern European country with strong TB M&E practices, was selected as the EEE COE host country. Other COE partners include Ukraine, Moldova, Armenia, and Azerbaijan.

The COE contributes to TB M&E research, dissemination, expertise building, and knowledge sharing across the EEE region. It will feature a virtual platform for sharing online trainings, webinars, and other resources to harness existing TB data and engage those in the COE network.

The COE is designed to improve Georgia's TB data reporting, communication, and sharing for its own effective decision-making. TB DIAH is also supporting Georgia's NCDC and NCTLD to document their experiences with identifying and addressing identified areas for improvement within their TB M&E systems as reference for other countries to learn from and build upon. Ultimately, the COE will serve as a regional model for best practices in TB M&E and surveillance.

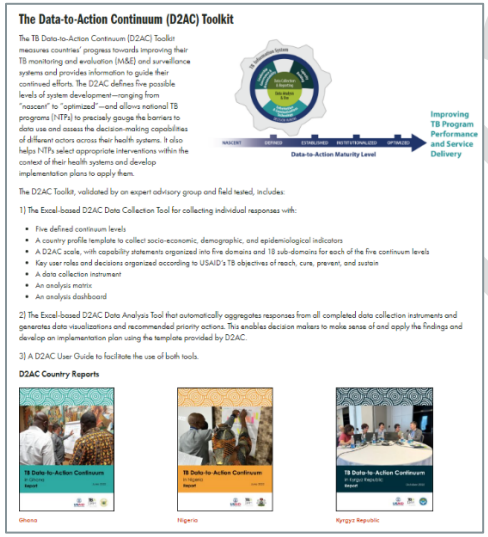
Finally, the COE serves as a hub for TB DIAH support in the EEE region to ensure synergy, sustainability, and effective use of resources.

Learn more about the EEE COE:

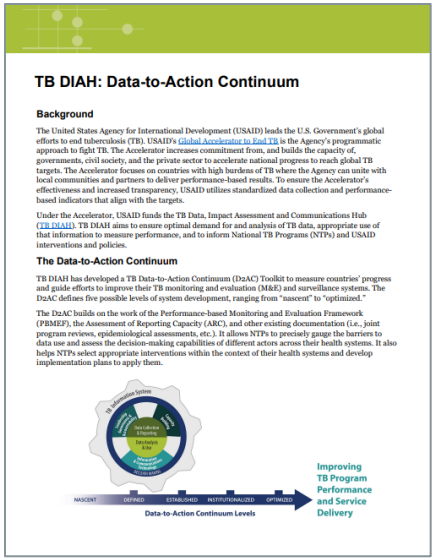
CENAT e-Learning platform with TB M&E modules

Capacity Strengthening webpage on the TB DIAH Knowledge Hub

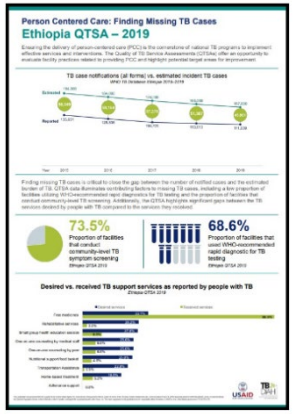
D2AC webpage on the TB DIAH Knowledge Hub

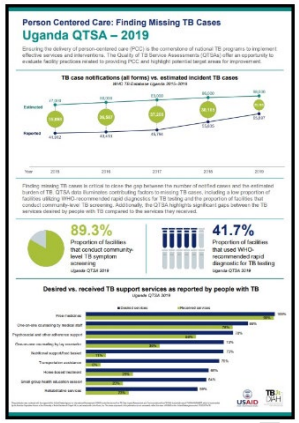


D2AC two-page overview (English, French, Portuguese, Russian)

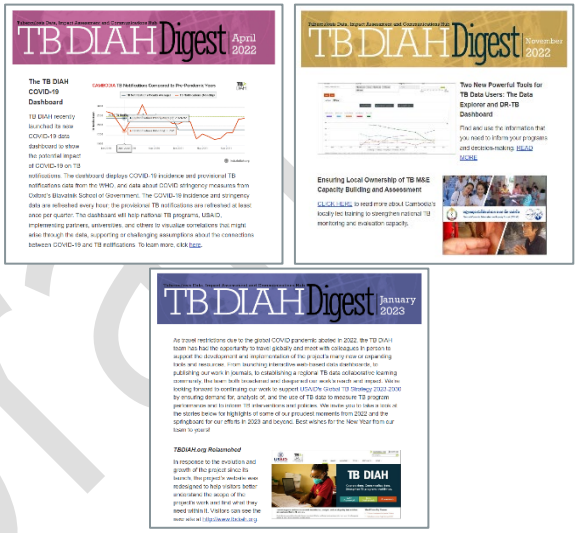


QTSA Infographics for Person Centered Care: Finding Missing TB Cases (Afghanistan, Ethiopia, Philippines, and Uganda) (Note: Afghanistan infographic not published to the Knowledge Hub).

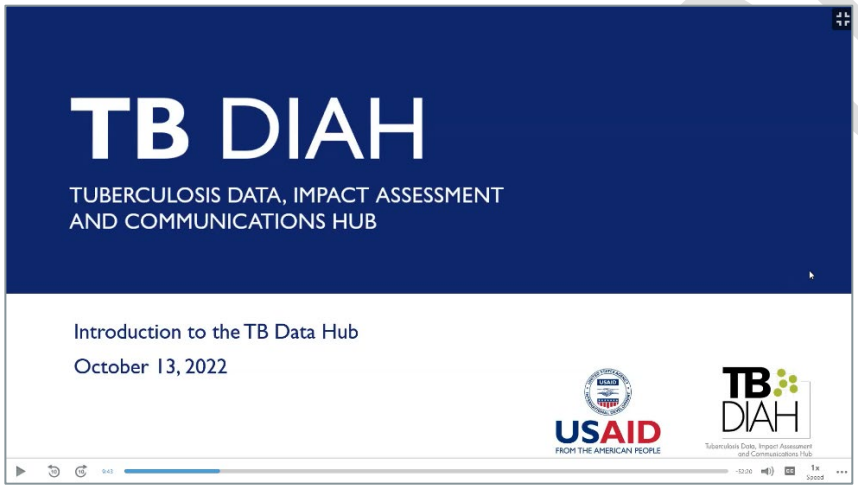




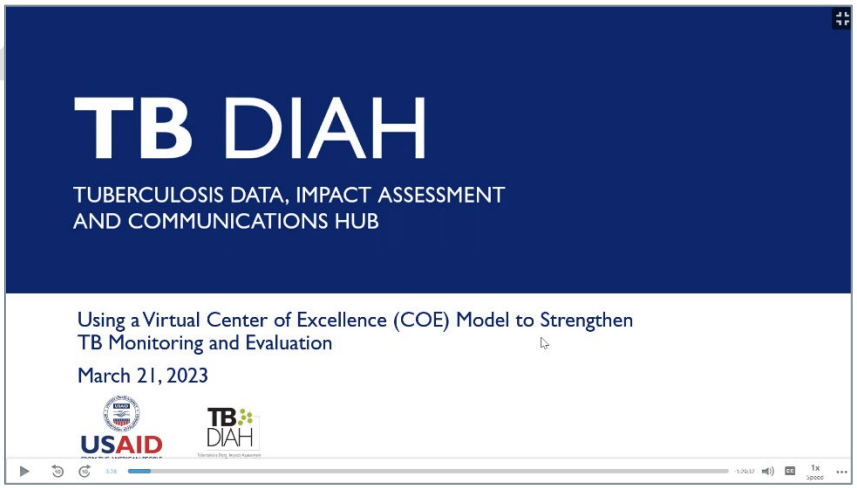
TB DIAH Digest e-newsletters for Year 4: April 2022, Nov 2022, Jan 2023



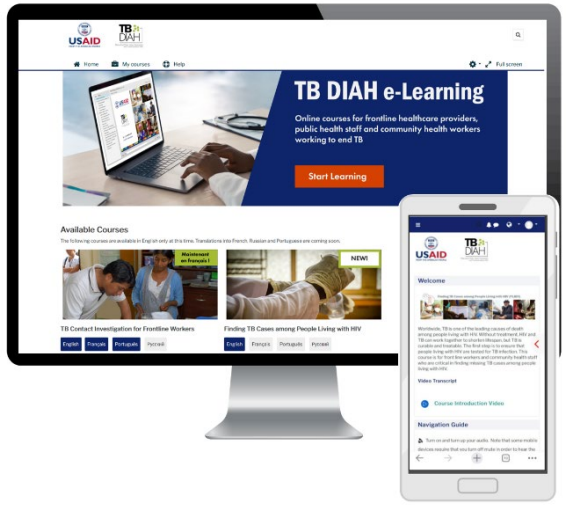
Webinar: "Introducing TB DIAH's Data Hub"



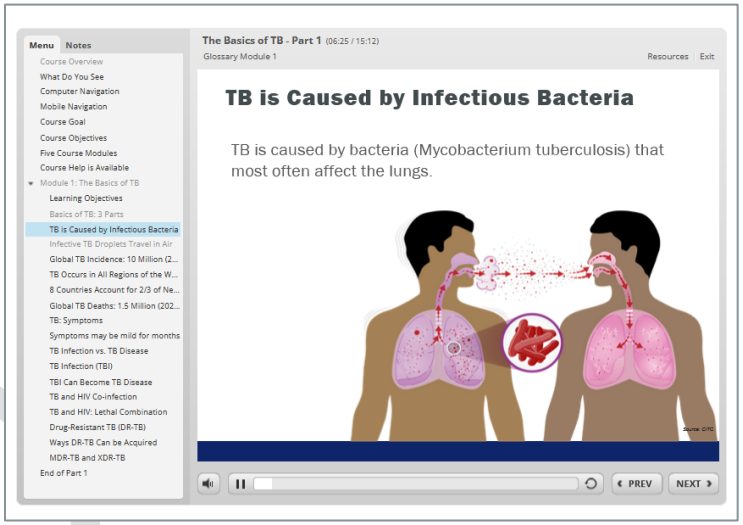
Global webinar on the COE model and implementation



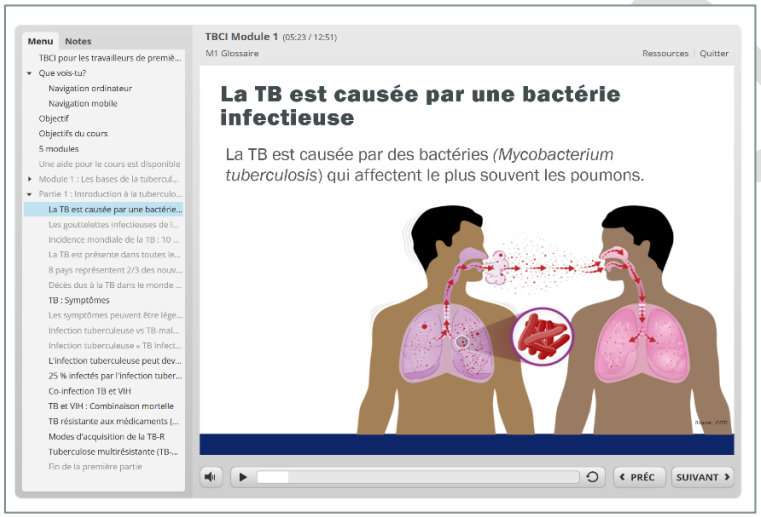
TB DIAH e-Learning portal



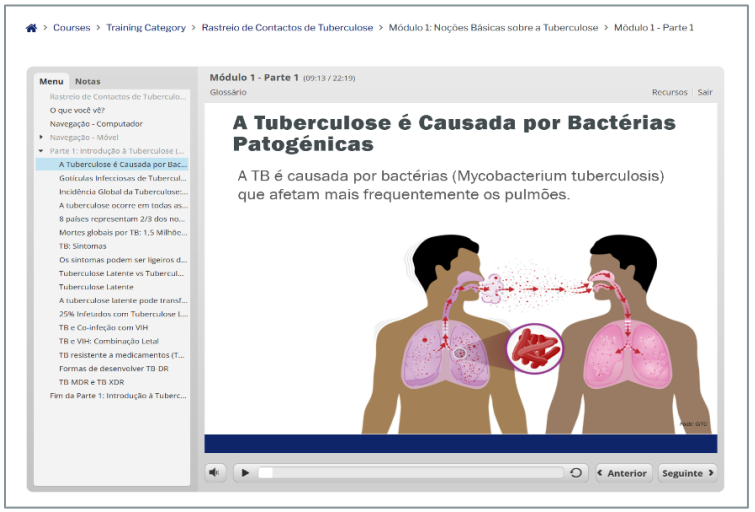
TB Contact Investigation (TBCI) e-Learning course



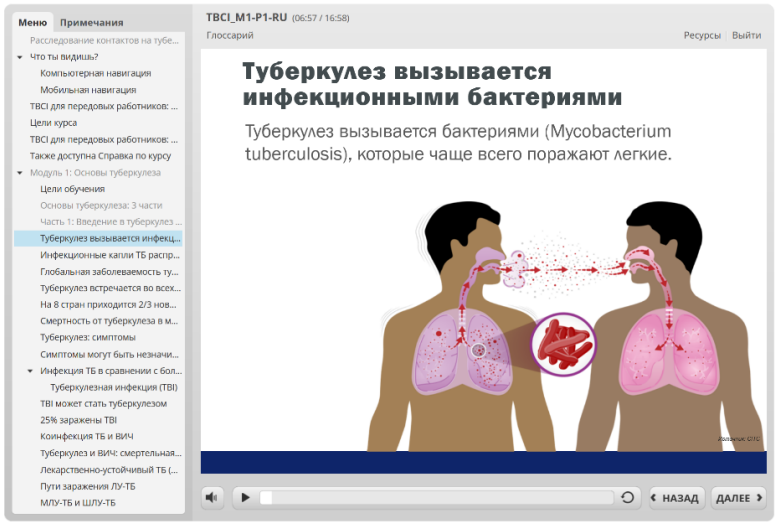
TBCI Frontline Worker e-Learning course (French)



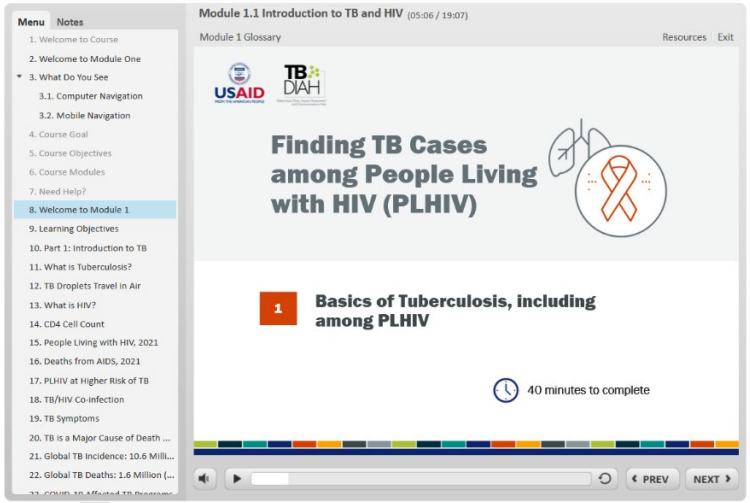
TBCI Frontline Worker e-Learning course (Portuguese)



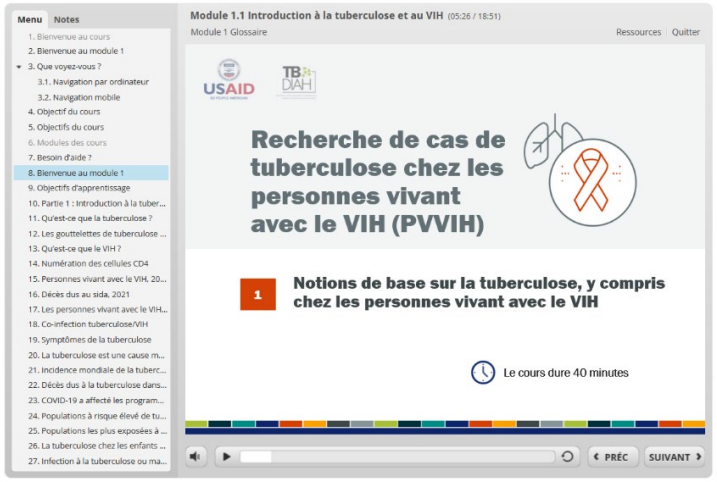
TBCI Frontline Workers e-Learning Course (Russian)



Finding TB Cases among People Living with HIV (PLHIV)

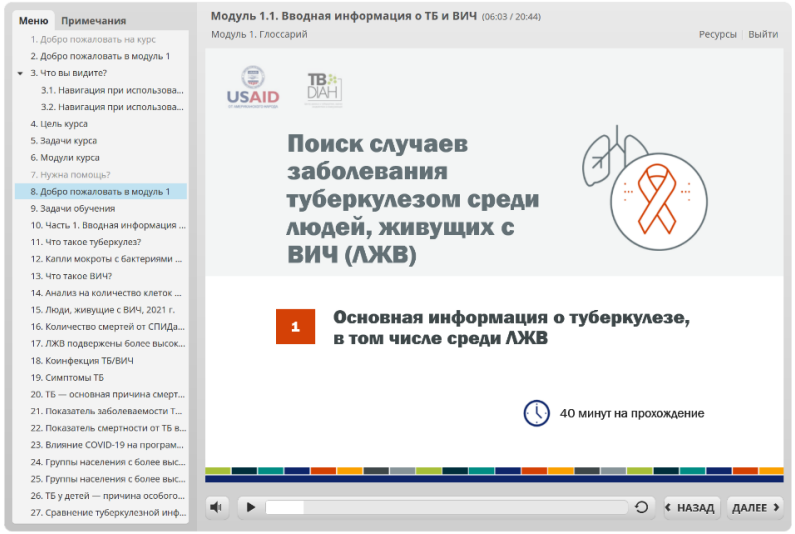


Finding TB Cases among PLHIV e-Learning course (French)

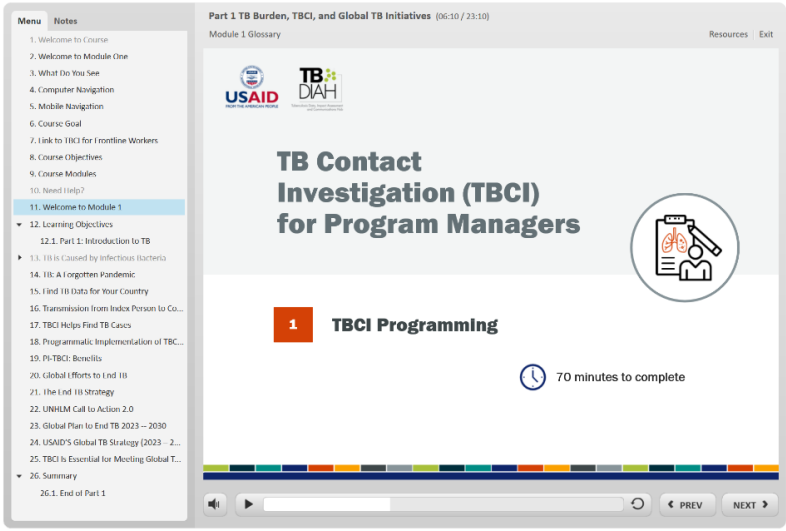


Finding TB Cases among PLHIV e-Learning course (Portuguese)

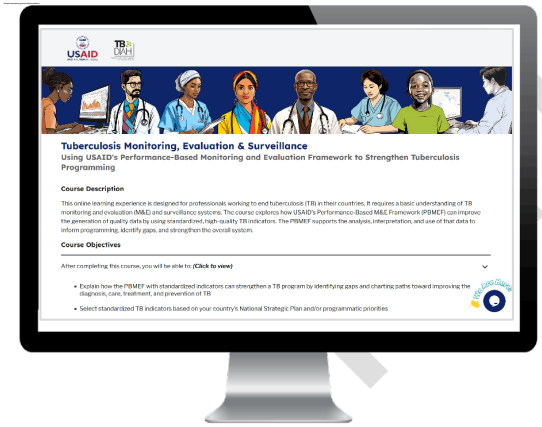
Finding TB Cases among PLHIV e-Learning course (Russian)



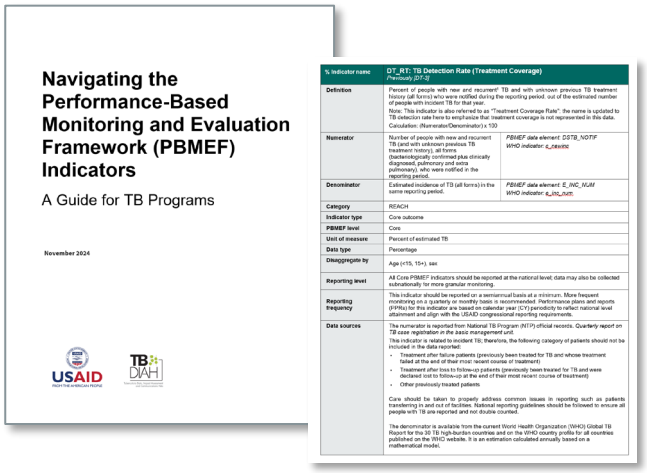
TBCI for Program Managers e-Learning course (English)



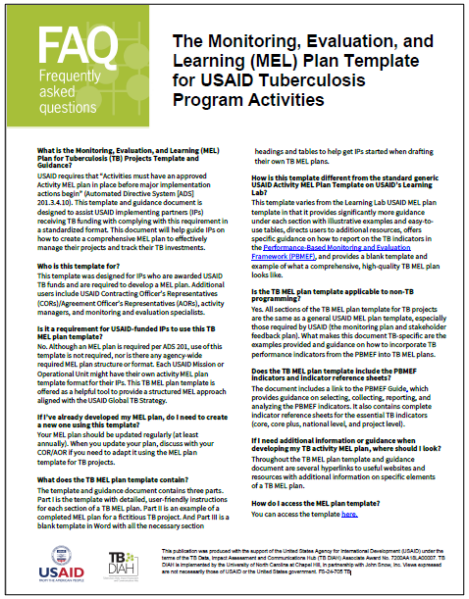
TB Monitoring, Evaluation and Surveillance: Using USAID's PBMEF to Strengthen TB Programming



PBMEF Guide 2.0



MEL Plan FAQ



FAQ
Frequently asked questions

The Monitoring, Evaluation, and Learning (MEL) Plan Template for USAID Tuberculosis Program Activities

What is the Monitoring, Evaluation, and Learning (MEL) Plan for Tuberculosis (TB) Projects Template and Guidance?

USAID requires that "Activities must have an approved Activity MEL plan in place before major implementation actions begin" (Automated Directive System [ADS] 201.3.4.10). This template and guidance document is designed to assist USAID implementing partners (IPs) receiving TB funding with complying with this requirement in a standardized format. This document will help guide IPs on how to create a comprehensive MEL plan to effectively manage their projects and track their TB investments.

Who is this template for?

This template was designed for IPs who are awarded USAID TB funds and are required to develop a MEL plan. Additional users include USAID Contracting Officer's Representatives (CORs)/Agreement Officer's Representatives (AORs), activity managers, and monitoring and evaluation specialists.

Is it a requirement for USAID-funded IPs to use this TB MEL plan template?

No. Although an MEL plan is required per ADS 201, use of this template is not required, nor is there any agency-wide required MEL plan structure or format. Each USAID Mission or Operational Unit might have their own activity MEL plan template format for their IPs. This TB MEL plan template is offered as a helpful tool to provide a structured MEL approach aligned with the USAID Global TB Strategy.

If I've already developed my MEL plan, do I need to create a new one using this template?

Your MEL plan should be updated regularly (at least annually). When you update your plan, discuss with your COR/AOR if you need to adapt it using the MEL plan template for TB projects.

What does the TB MEL plan template contain?

The template and guidance document contains three parts. Part I is the template with detailed, user-friendly instructions for each section of a TB MEL plan. Part II is an example of a completed MEL plan for a fictitious TB project. And Part III is a blank template in Word with all the necessary section headings and tables to help get IPs started when drafting their own TB MEL plans.

How is this template different from the standard generic USAID Activity MEL Plan Template on USAID's Learning Lab?

This template varies from the Learning Lab USAID MEL plan template in that it provides significantly more guidance under each section with illustrative examples and easy-to-use tables, directs users to additional resources, offers specific guidance on how to report on the TB indicators in the Performance-Based Monitoring and Evaluation Framework (PBMEF), and provides a blank template and example of what a comprehensive, high-quality TB MEL plan looks like.

Is the TB MEL plan template applicable to non-TB programming?

Yes. All sections of the TB MEL plan template for TB projects are the same as a general USAID MEL plan template, especially those required by USAID (the monitoring plan and stakeholder feedback plan). What makes this document TB-specific are the examples provided and guidance on how to incorporate TB performance indicators from the PBMEF into TB MEL plans.

Does the TB MEL plan template include the PBMEF indicators and indicator reference sheets?

The document includes a link to the PBMEF Guide, which provides guidance on selecting, collecting, reporting, and analyzing the PBMEF indicators. It also contains complete indicator reference sheets for the essential TB indicators (core, core plus, national level, and project level).

If I need additional information or guidance when developing my TB activity MEL plan, where should I look?

Throughout the TB MEL plan template and guidance document are several hyperlinks to useful websites and resources with additional information on specific elements of a TB MEL plan.

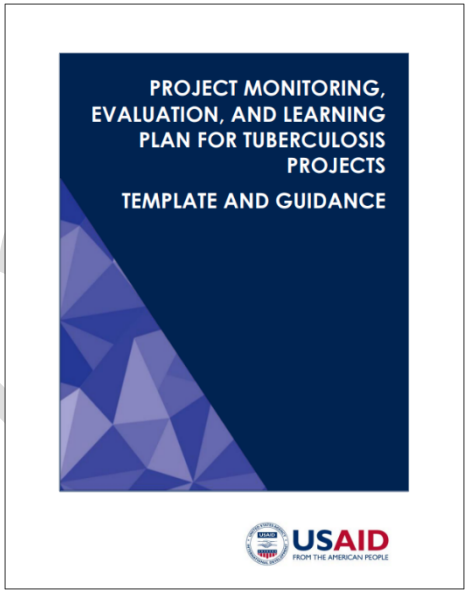
How do I access the MEL plan template?

You can access the template here.

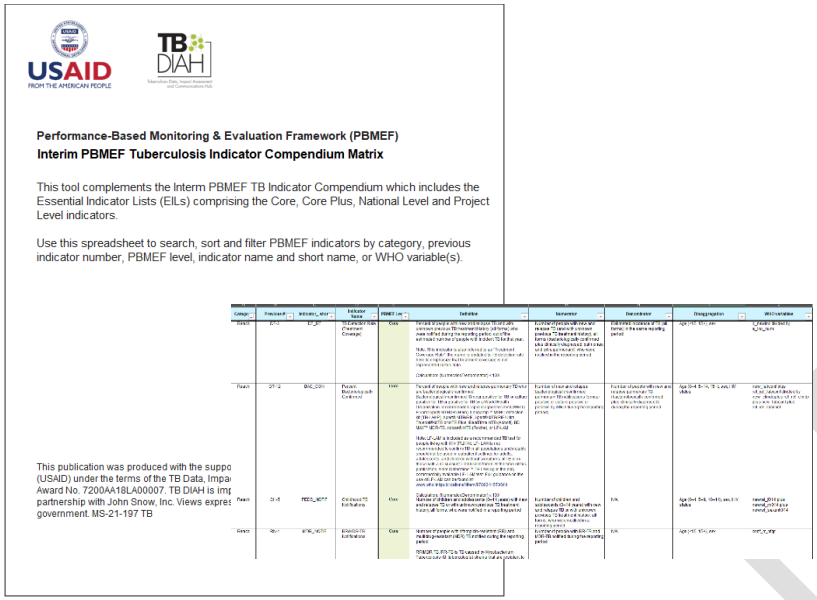
USAID TB DIAH

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of the TB Data, Impact Assessment and Communications Hub (TB DIAH) Associate Award No. 7200AA18LA00037. TB DIAH is implemented by the University of North Carolina at Chapel Hill, in partnership with John Snow, Inc. Views expressed are not necessarily those of USAID or the United States government. PD-ZA-708 TB

MEL Plan Template and Guidance



Interim PBMEF Indicator Matrix



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TB DIAH

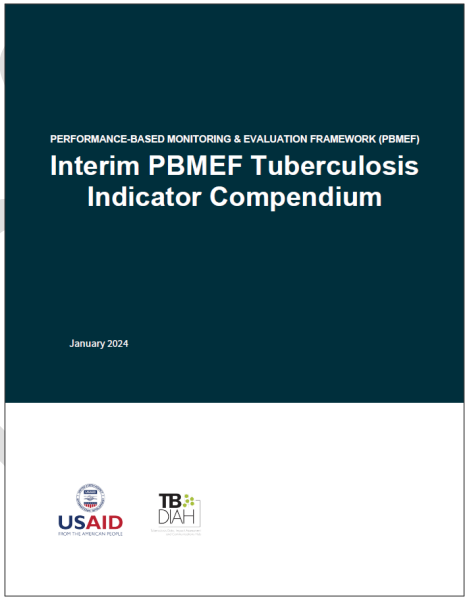
Performance-Based Monitoring & Evaluation Framework (PBMEF)
Interim PBMEF Tuberculosis Indicator Compendium Matrix

This tool complements the Interm PBMEF TB Indicator Compendium which includes the Essential Indicator Lists (EILs) comprising the Core, Core Plus, National Level and Project Level indicators.

Use this spreadsheet to search, sort and filter PBMEF indicators by category, previous indicator number, PBMEF level, indicator name and short name, or WHO variable(s).

This publication was produced with the suppo
(USAID) under the terms of the TB Data, Impa
Award No. 7200AA18LA00007. TB DIAH is imp
partnership with John Snow, Inc. Views expres
government. MS-21-197 TB

Interim PBMEF Compendium



PERFORMANCE-BASED MONITORING & EVALUATION FRAMEWORK (PBMEF)

Interim PBMEF Tuberculosis Indicator Compendium

January 2024

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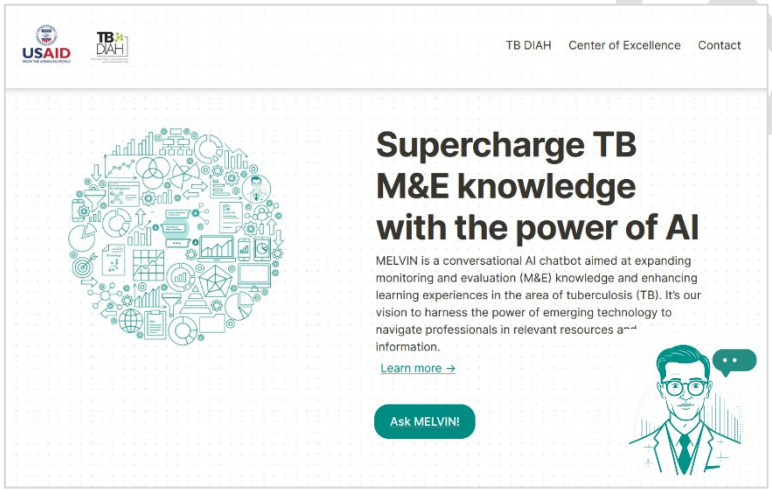
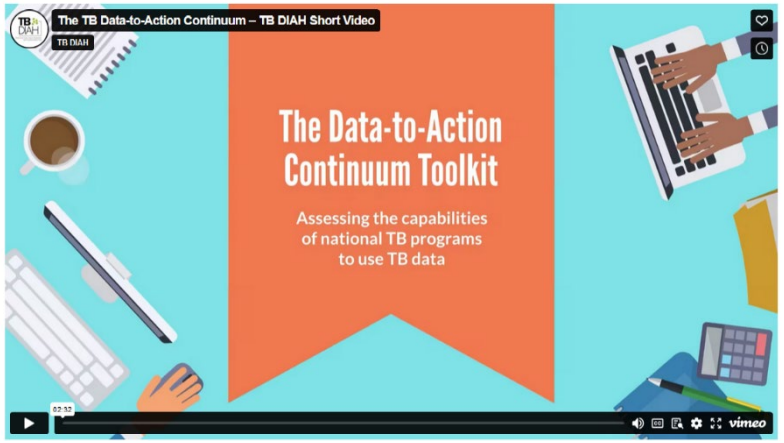
TB DIAH

MELIVN: TB M&E AI Chatbot



Data-to-Action Online Toolkit & Video



Appendix 8. TB DIAH Staff

Key Personnel:

Stephanie Mullen, Project Director

Ann Fitzgerald, Research Manager - Field Services Manager/Deputy Director

Tariq Azim, Senior M&E Technical Advisor

Rebecca Oser, Communications Director

Contract/Finance Team:

Darrell Keyes, Finance Officer

Kavita Singh Ongechi, PhD, Principal Investigator

Shea Henson, Measure Program Operations Director

TB DIAH HQ Staff:

Bridgit Adamou, Senior M&E Advisor

Daniel Cothran, Senior Technical Advisor and Drupal Lead, TB Data Hub Webmaster

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