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

PBMEF Description

The Performance-Based Monitoring and Evaluation Framework (PBMEF) is a comprehensive indicator tool. It can help USAID Mission staff working on tuberculosis (TB), and national governments, ministries of health, implementing partners (IPs), and national TB programs (NTPs), track progress against TB targets in their country and manage USAID’s TB investments all in one place. This systematic monitoring and evaluation (M&E) framework contains 10 high-level core indicators selected to provide standard comparisons across USAID’s 23 TB-priority countries and reflects the investments of USAID and the global TB community. The framework’s objective is to offer a standardized approach to measurement and reporting to strengthen the use of data for decision making by NTPs.

The framework (Figure 1) is organized into extended indicator groups comprising the 10 core indicators and several additional extended indicators, which allow TB stakeholders to further analyze data and dig deeper to identify specific program gaps.

The framework has been informed by existing TB strategies: USAID’s Global Accelerator to End TB; the End TB Strategy of the World Health Organization (WHO); the Global Plan to End TB (Stop TB Partnership); the United Nations High-Level Meeting (UNHLM) on Ending TB’s Political Declaration; and the U.S. Government Global TB Strategy 2015-2019. The PBMEF is a living document that can be continuously updated, harmonized, and adapted to individual country contexts and needs.

Figure 1. PBMEF Framework

<table>
<thead>
<tr>
<th>REACH</th>
<th>CURE</th>
<th>OBJECTIVES</th>
<th>PREVENT</th>
<th>SUSTAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve access to high-quality, patient-centered tuberculosis (TB), drug-resistant TB (DR-TB), and TB/HIV services</td>
<td>Improve TB service delivery</td>
<td>Increase prevention of TB transmission &amp; disease progression</td>
<td>Increase commitment for the sustainability of TB efforts</td>
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<td>Treat 60 million people by 2022</td>
<td>Treatment success 90%</td>
<td>30 million on TB preventive treatment (TPT)</td>
<td>Global investments reach $13 billion by 2022</td>
<td></td>
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<tr>
<td>TB diagnosis • Engagement of care providers • Community TB care delivery</td>
<td>TB treatment • Drug-sensitive (DS)-TB treatment • TB/HIV</td>
<td>Prevention</td>
<td>Procurement and supply chain management • Health management information systems and monitoring and evaluation • Human resources for health • Governance and financing</td>
<td></td>
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<tr>
<td>✓ TB Detection • Presumptive TB • Active Case Findings • Contact Investigation • DR-TB Notifications • Childhood TB • Private Sector</td>
<td>✓ TB Treatment Success • DR-TB Treatment • TB/HIV</td>
<td>✓ TPT Treatment • Prevention • Health Care Worker Screening</td>
<td>✓ Sustainability: • Finance • Policies &amp; Guidelines • Governance</td>
<td></td>
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<tr>
<td>✓ TB Case Detection Rate or TB Treatment Coverage • Bacteriological Diagnostic Coverage (Pulmonary TB) • Childhood TB Notifications • DR-TB Notifications • Private Sector TB Notifications • Contact Investigation Coverage</td>
<td>✓ TB Treatment Success Rate DR-TB Treatment Success</td>
<td>✓ TPT Coverage</td>
<td>✓ Proportion of TB Financing from Domestic Sources</td>
<td></td>
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<tr>
<td>Increase in TB and multiple drug resistant (MDR)-TB case notifications to meet WHO estimates</td>
<td>Increase the success rate for TB and MDR-TB</td>
<td>Increase the number of people on isoniazid preventive therapy (IPT)</td>
<td>Increase in government ownership and commitment</td>
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PBMEF Development Process

The PBMEF was developed through a consultative and collaborative process with the USAID/Washington TB team. First, the USAID-funded TB Data, Impact Assessment and Communications Hub (TB DIAH) project reviewed and synthesized patient pathways and treatment cascades for drug-sensitive TB (DS-TB), drug-resistant TB (DR-TB), TB preventive treatment (TPT), contact investigation, and TB/HIV. Existing standard WHO TB indicators and a set of potential indicators were then mapped alongside indicator pathways to prepare a full list of draft PBMEF indicators.

Next, TB DIAH identified key M&E questions relevant to TB program monitoring by national- and subnational-level managers and M&E experts. These questions were matched with the list of draft performance-based indicators.

The third step was to prioritize the indicators based on their importance, feasibility, and credibility. The result of this exercise was a smarter list of indicators—identified as core and extended. Detailed indicator reference sheets, including how the data can be used and visualized, were developed for each core indicator.

Core Indicators

In the past, USAID Missions only reported on two core TB indicators in the annual Performance Plan and Report (PPR): Number of DR-TB enrolled on treatment and DR-TB Notifications. Starting with USAID’s PPR for Fiscal Year 2020, Missions will need to report on all ten core indicators. These ten core indicators in the PBMEF framework provide standard comparisons across USAID’s TB-priority countries and are a mandatory part of the PPR and TB Roadmap reporting process through the Missions.

The 10 core indicators are as follows:

1. TB Case Detection Rate or TB Treatment Coverage
2. Bacteriological Diagnosis Coverage (Pulmonary TB)
3. Childhood TB Notifications
4. DR-TB Notifications
5. Private Sector TB Notifications
6. Contact Investigation Coverage
7. TB Treatment Success Rate
8. DR-TB Treatment Success
9. TPT Coverage
10. Proportion of TB Financing from Domestic Sources

These indicators were selected because they measure annual trends that best assess country performance in detecting, enrolling, and treating TB cases. They also measure performance toward the U.S. Government’s Global TB Strategy (reach, cure, prevent, and self-reliance) and the

UNHLM’s country-level TB targets. These indicators are highly important for M&E and are generally readily available through NTPs’ existing M&E systems or the WHO database. Therefore, they can be collected with little additional investment.

Extended Indicators

The extended indicators provide additional data to monitor progress toward the 10 core indicators. These indicators offer more standard options to include in an M&E plan to bolster justification for programming and funding for specific technical areas in the TB portfolio. It is strongly recommended that USAID-funded IPs incorporate and use some of the extended indicators in their M&E plans. However, they need more substantial investment to collect routinely. These standardized, high-quality indicators can help IPs when developing their M&E plans and inform USAID’s global programming. The additional data collected by the extended indicators will help explain why a country is or is not achieving its targets; which course corrections might be taken; and which gaps in programming require additional resources. These indicators can also be used to construct treatment cascades and patient pathways that are critical to identifying programming gaps and efforts that need to be strengthened.

Indicator Cascades

The framework has cascades built into it (e.g., TB/HIV, contact investigation, childhood TB screening and treatment) so that TB data can be analyzed using a cascade approach to find gaps in TB programs.

A cascade can quantify, track, and visualize how health and development programs are performing for the target population at progressive stages toward an expected outcome. The TB indicators can be used to construct treatment cascades and patient pathways (for example, in Figure 2) that are critical to understanding where efforts need to be strengthened.

The PBMEF and Developing TB Roadmaps

The PBMEF is a critical piece of the TB Roadmap development process. It will be crucial for tracking progress toward ending the TB epidemic by reaching every person with TB, curing those in need of treatment, and preventing the spread of the disease and new infections. The framework can also help identify challenges to implementing USAID’s Global Accelerator to End TB and achieving the UNHLM and NTP targets. These data will provide countries and
USAID an evidence base for making funding and programmatic decisions.

In addition to the core indicators, country teams can select from the extended indicators (not including disaggregated data) to help understand the situation at a more granular level, in whatever ways make sense for USAID investments in the country.

The PBMEF can be used to analyze data using the cascade method for finding gaps in programs. Implementing the framework can help ministries of health, donors, country programs, and IPs answer such questions as:

- Which TB services are performing less well than expected?
- Are we missing certain target groups?
- What course corrections do we need to take in each technical area to achieve our targets?
- Which gaps in programming may require additional resources?

**Indicator Guide**

TB DIAH developed “Navigating Tuberculosis Indicators: A Guide for TB Programs” (Figure 3) describing the PBMEF, TB indicators and cascades, and TB data reporting. This comprehensive guide can assist with accurate and complete data collection. It covers the following:

- The purpose of the guidance; how the PBMEF fits into the TB Global Accelerator and Roadmap processes; and an overview of USAID’s global TB strategy and targets.
- A description of the core and extended PBMEF indicators, and an explanation of how the PBMEF can be used as a data management tool.
- Guidance on how to report the core and extended indicators.
- Full indicator reference sheets for the 10 core indicators.
- An overview of data quality.

The guide encourages the consistent use of indicators to monitor and evaluate USAID investments in TB-priority countries.

**Figure 3. TB Indicator Guide**
USAID Mission staff—and IPs and NTPs in the future—will report on the 10 core indicators via the TB DIAH data hub (the hub). This web portal is a secure online data collection system housed on an interactive website that contains aggregate, national, and—eventually—subnational, data dashboards for USAID TB-priority countries. It is a tool for analyzing routine TB data for performance measurement and is a resource for optimizing data analysis and use to inform TB interventions, resources, and policies.

The hub contains all available data for the core indicators from earlier years extracted from the WHO database. Going forward, Missions will enter new data from the most recent year for each indicator. Data for each year will be stored in the hub and readily available to Missions, IPs, and NTPs. Historical data can be pulled from the database and used to populate new reports or generate trend analyses of TB program performance.

Figure 4. TB DIAH Data Hub home page