

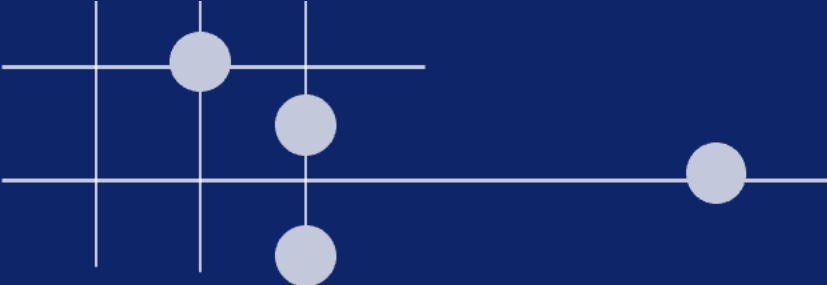
TB DIAH

TUBERCULOSIS DATA, IMPACT ASSESSMENT
AND COMMUNICATIONS HUB

New Tools and Guidance for Tuberculosis Monitoring, Evaluation and Surveillance from the
US Agency for International Development and World Health Organization

February 20th, 2024





Introductions

TB DIAH

TUBERCULOSIS DATA, IMPACT ASSESSMENT
AND COMMUNICATIONS HUB

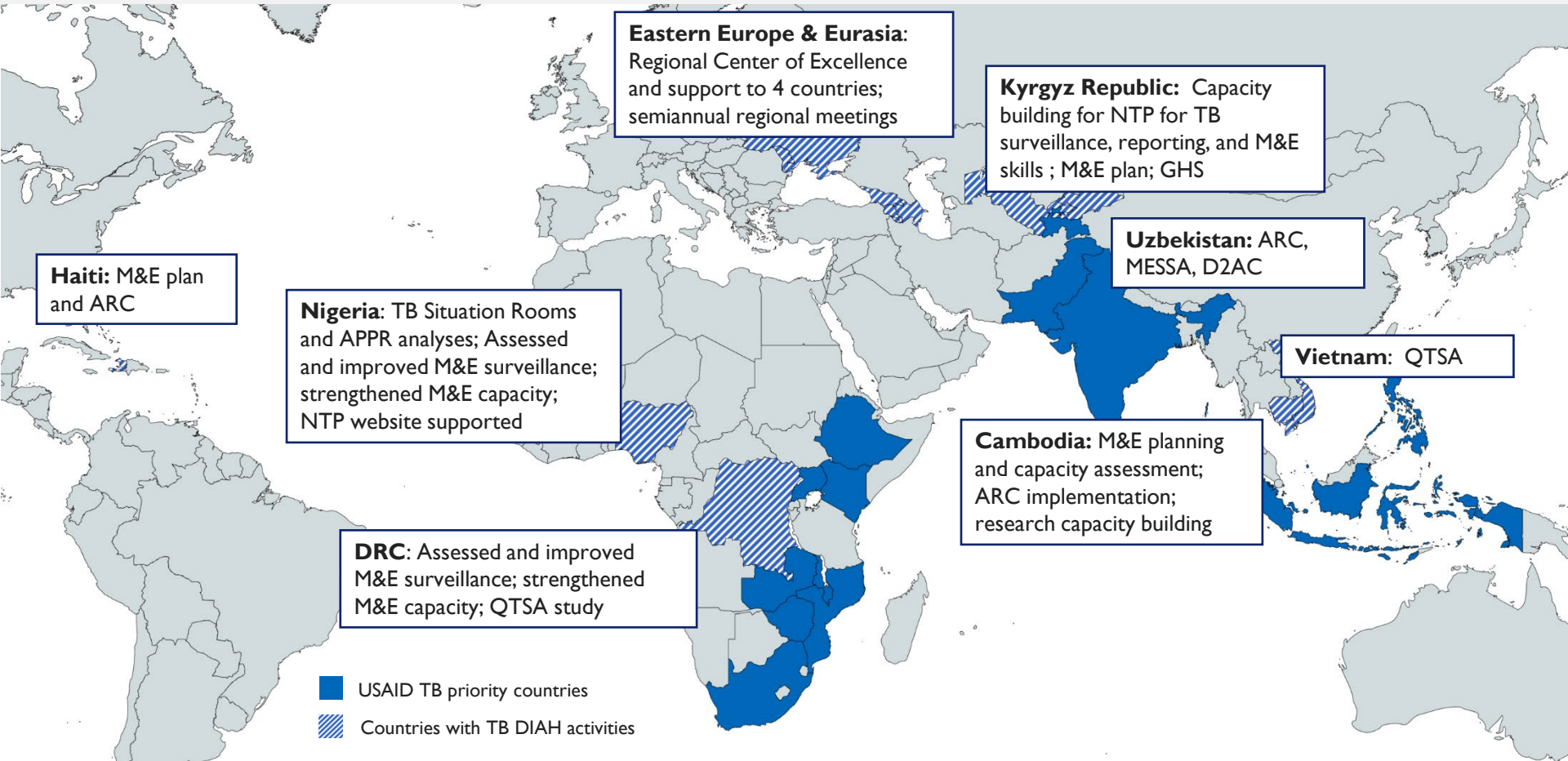
- Part of the Global Accelerator to End TB
- Global, five-year (2018-2023) associate award, \$36M cooperative agreement
- Small team of M&E and TB experts working to clarify TB data in way that helps USAID monitor its TB investments in its TB priority countries
- Helps countries use data to share their story



What does TB DIAH do?



Where does TB DIAH work?



Stephanie Mullen
TB DIAH Project Director

Introductions

Sevim Ahmedov
TB DIAH AOR
USAID

Opening Remarks

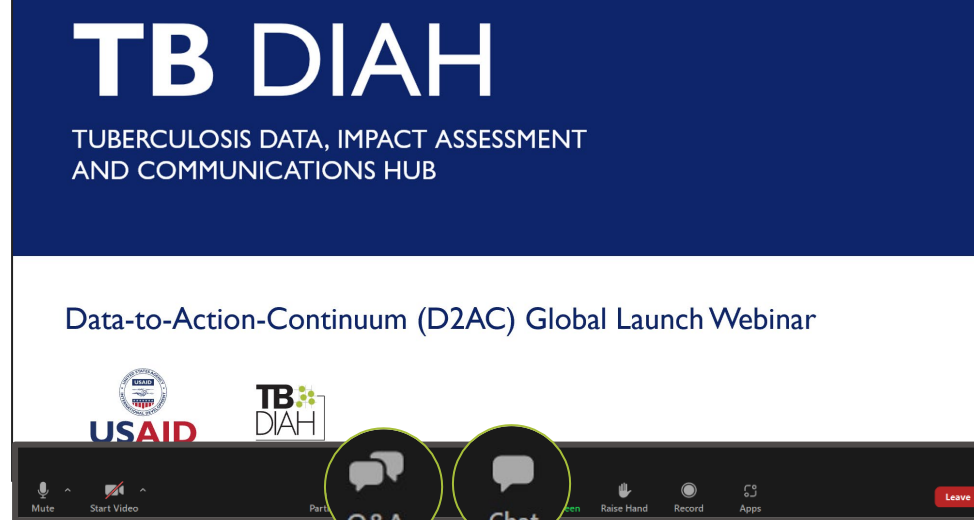
Charalampos (Babis) Sismanidis
Team Lead
Global TB Programme
WHO

WHO's 2024 Surveillance Guidance Update

Meaghan Peterson
TB M&E Advisor
USAID

USAID's Performance-based Monitoring and Evaluation Framework

Q&A



Please use the **Q&A** for all questions.

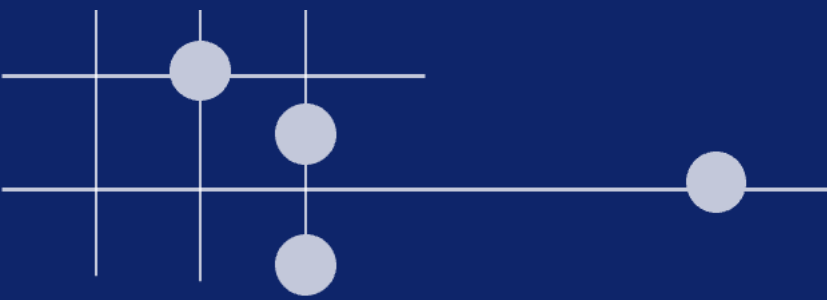
Please **tell us who you are and where you're from** in the chat.



Questions will be addressed during and at the end of the webinar.



The webinar is being recorded and a link to the recording and presentation will be shared with all attendees and registrants tomorrow by a Zoom link and email.



Opening Remarks

USAID Global TB Strategy (2023-2030): Results Framework

<i>Measurements</i>	<i>Target</i>
<i>Impact</i>	<ul style="list-style-type: none">● Reduce TB incidence rate by 35% by 2030● Reduce TB mortality rate by 52% by 2030
<i>Outcome</i>	<ul style="list-style-type: none">● 90% of incident TB cases diagnosed and initiated on treatment● 90% of incident DR-TB cases diagnosed and initiated on treatment● 90% treatment success rate (TSR) for DS-TB and DR-TB● Provide TB preventive treatment (TPT) to 30,000,000
<i>Process</i>	<ul style="list-style-type: none">● All priority countries rapidly introduce new TB tools and approaches● All priority countries have strong TB national networks and USAID partnerships inclusive of affected communities● All priority countries include appropriate TB interventions in pandemic preparedness plans● All priority countries have implemented plans to address socio-economic determinants and health-related risk factors that impact the TB epidemic

Summary of upcoming WHO guidance on TB surveillance

Charalampos (Babis) SISMANIDIS

Monitoring, Evaluation and Strategic Information Unit
Global Tuberculosis Programme



**New Tools for Tuberculosis Monitoring and Evaluation
and Global Surveillance Guidance Updates from USAID and WHO**
20 February 2024 | Webinar

WHO Task Force on TB Impact Measurement (since 2006)

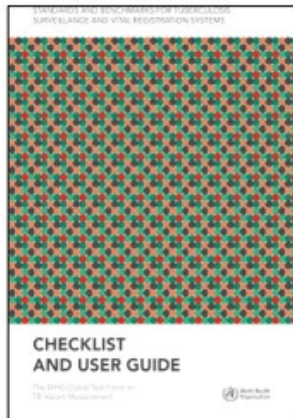
<https://www.who.int/groups/global-task-force-on-tb-impact-measurement>

Strategic areas of work:

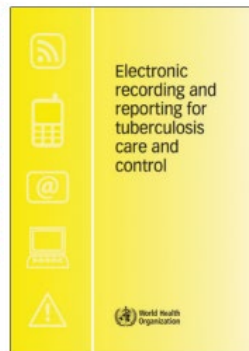
- 1. Strengthen national surveillance notification systems** for direct measurement of TB cases, including drug-resistance and HIV-associated TB.
- 2. Periodically measure TB disease burden**, through **priority studies**.
- 3. Periodic review of methods** used by WHO to estimate the burden of TB **disease** and latent TB **infection**.
- 4. Analysis and use of TB data at country level, including:**
 - Disaggregated analyses (e.g. age, sex, location) to assess inequalities and equity.
 - Guidance and tools.
 - Capacity building.

Guidance associated with priority areas of work identified by the Task Force on TB impact measurement

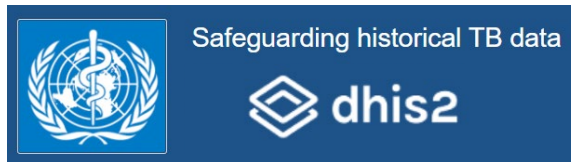
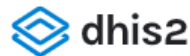
1. Strengthening surveillance



2nd edition



Metadata packages



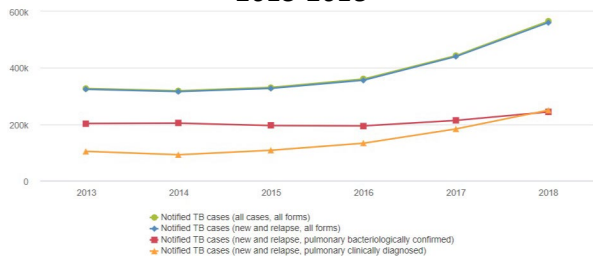
+ software
agnostic guidance
in 2024

Harnessing the power of reliable routine TB surveillance data

Monitor TB trends over **time**, by **geography** or for specific **populations at risk** to inform TB care and prevention activities and resource allocation.

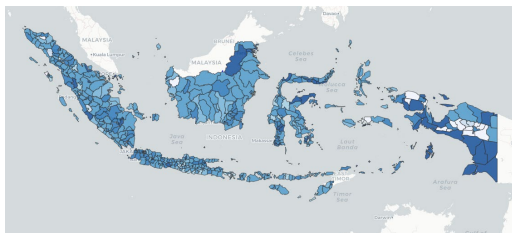
Over time:

Number of TB notifications
2013-2018



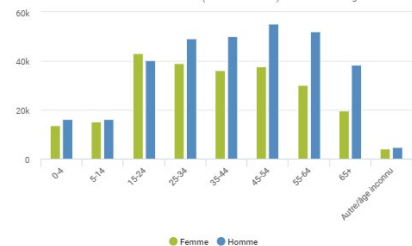
By geography:

TB notification rate in 2018
by district



By population:

Number of TB notifications in 2018
by age and sex



Informed decisions on TB prevention and care activities as well as resource allocation for impact.

Guidance on TB surveillance



Background

1994 DOTS strategy: standardised recording and regular reporting of people with TB

<https://apps.who.int/iris/handle/10665/58717>

2006 update: more disaggregation of cases by age, sex, HIV status.

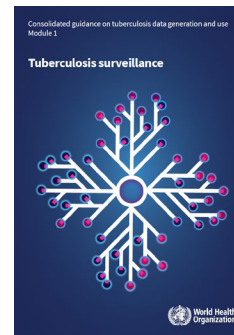
<https://apps.who.int/iris/handle/10665/69608>

2013 update: new case definitions following WHO approval of rapid molecular tests; minor tweaks in 2014: TB/HIV and 2020: LF-LAM.

<https://apps.who.int/iris/handle/10665/79199>

2024 update: expanded scope and content, to be published in English (Q1), followed by Spanish, French and Arabic by the end of the year

Definitions and reporting
framework for tuberculosis
– 2013 revision
– 2013 revision
Updated December 2014 and January 2020





Guidance on TB surveillance



Content

CHAPTERS

1. Introduction
2. Purpose, principles, scope
3. Definitions
4. Core indicators to report **and use NEW**
5. Core data items to collect
6. Digital TB surveillance **NEW**
7. Data quality **NEW**

WEB ANNEXES

- A. TB surveillance: commonly observed problems and suggested solutions **NEW**
- B. WHO TB surveillance checklist (2nd edition) **NEW**
- C. WHO guidance on record linkage **NEW**
- D. Reporting of aggregated data and calculation of core indicators: templates and formulae
- E. Examples of reporting scenarios of diagnosis, start of treatment and treatment outcomes
- F. Evaluation synthesis of case-based DHIS2 implementation in five countries **NEW**

Chapter 2. Purpose, principles, scope



Rationale

- Alignment with the WHO End TB Strategy
- Updated WHO guidelines on TB prevention, diagnosis and treatment, including 2020 update to case definitions and treatment outcomes
- Address common problems seen in over 100 national TB epidemiological reviews since 2013
- Promote case-based digital TB surveillance
- Growing demand for “real-time” data

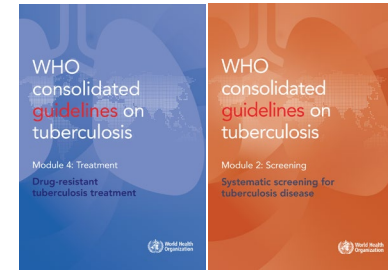
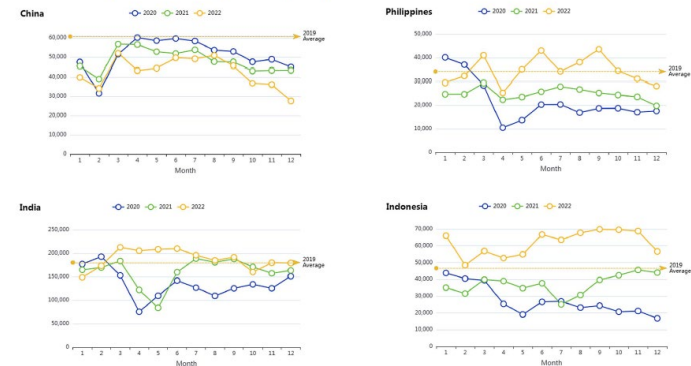


Fig. 4.2 Provisional national data on monthly TB notifications in four high TB burden countries during the COVID-19 pandemic, as reported to WHO



Chapter 2. Purpose, principles, scope

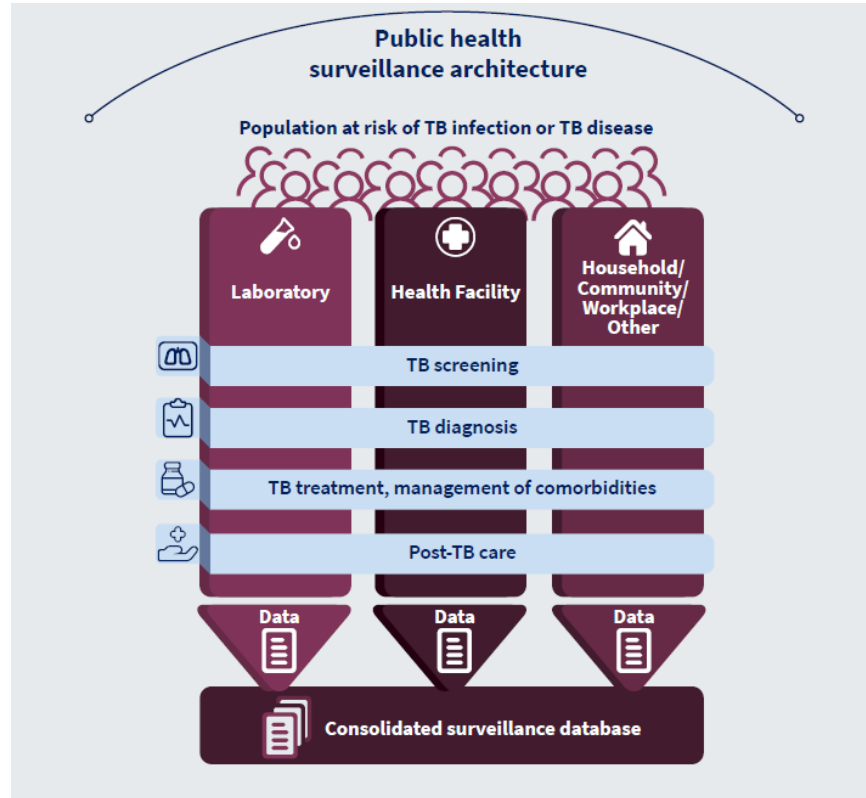


Principles

1. Based on **clear**, comprehensive and **standardized definitions**
2. Limited to collection and reporting of **data** that will be **used**
3. Applicable to both case-based digital and manual aggregate reporting systems (but **promoting the transition to case-based digital surveillance**)
4. Data are checked for **completeness and accuracy**
5. The **frequency of reporting** varies according to intended use and should be clearly specified
6. Countries should benefit from the experience and lessons learned in other countries

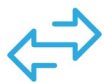
Chapter 2. Purpose, principles, scope

Scope





Chapter 3. Definitions



Key changes terms

New term or definition	Previous term or definition	Reason for change
Terms		
Recurrent case	Relapse case	It ensures alignment with case definitions for people with TB commonly used in TB clinical trials.
Re-registered for treatment	Retreatment	It is a simplified and more accurate descriptor for people who start a new TB treatment regimen (following either treatment failure, loss to follow-up) or for whom the outcome of a previous treatment is undocumented (see also Table 3.6).
New episode of TB	New or relapse case	It is a simplified descriptor of people newly diagnosed with TB.



Chapter 3. Definitions

↔ Key changes definitions

New term or definition	Previous term or definition	Reason for change
Definitions		
<p>The same definitions are used for each category of treatment outcome, irrespective of a person's pattern of drug resistance and their treatment regimen.</p>	<p>The definitions used for some categories of treatment outcome (e.g. cured, treatment failed) were different for people treated for drug-susceptible TB and people treated for drug-resistant TB. The previous definitions for drug-resistant TB were relatively complex.</p>	<p>It allows for considerable simplification and streamlining of definitions, and is consistent with the outcomes of a WHO consultation convened in 2020 (5).</p>
<p>A change of treatment regimen (e.g. from a standard first-line regimen for drug-susceptible TB to a regimen for drug-resistant TB) is recorded as a "treatment failure".</p>	<p>Patients initially treated for drug-susceptible TB whose treatment was changed (prior to completion of treatment) to a regimen for drug-resistant TB were recorded with the outcome "transferred". They were not included in the calculation of the treatment success rate for people treated for drug-susceptible TB.</p>	<p>It is important to identify the optimal treatment for people with TB disease at the start of treatment. The change also ensures more accurate assessment of treatment outcomes.</p>



Chapter 3. Definitions

↔ Key changes (cont.)

- **Treatment initiation:** percentage of people diagnosed with TB, registered as a TB case. Monitor this step in the pathway of care because diagnosis of TB disease does not necessarily mean that a person will be offered or accept to take treatment
- For surveillance purposes, differentiating between **case** and **treatment** outcome categories: same across all case types and treatment regimens. “Died” and “Lost to follow-up” are different categories for the two cohorts.

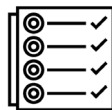
Chapter 4. Core indicators to report & use



Reporting frequency

- **Rapid (weekly or monthly):** detect and act on sudden changes in number diagnosed with a new TB episode
- **Regular (quarterly):** monitor provisional core indicators for epidemiological trends and programmatic responses
- **Consolidated (annually):** monitor a final larger set of indicators for epidemiological trends and programmatic responses

Chapter 4. Core indicators to report & use



Objectives by reporting frequency



Purpose	Reporting frequency		
	Rapid (weekly or monthly)	Regular (quarterly)	Consolidated (annual)
Monitoring of TB epidemiological trends	X	X	X
Timely detection and investigation of sudden or unexpected changes	X		
Assessment of progress towards national and global targets			X
Assessment of the performance of TB services	X	X	X
Informing the planning, budgeting, policy, programmatic and clinical actions necessary to ensure high quality and coverage of TB services		X	X

Chapter 4. Core indicators to report & use

Excerpts of key tables (1/3)

Table 4.6 Core set of TB surveillance indicators for annual reporting and use in all countries, irrespective of whether a case-based digital or paper-based aggregated surveillance system is in place

The indicators comprise all of the core indicators recommended for quarterly reporting and use (Table 4.2) as well as additional core indicators that are recommended only for annual reporting and use. The fourth column identifies whether an indicator is for quarterly reporting, annual reporting or both.

Indicator	Numerator and denominator	Recommended level of disaggregation	Reporting frequency
People diagnosed with TB disease			
<p><i>Notifications:</i> Number of notifications of people diagnosed with a new episode of TB*</p>	<p><i>Numerator:</i> Number of notifications of people diagnosed with a new episode of TB*</p> <p><i>Denominator:</i> 1</p>	<p>Sex: male, female, intersex, unknown/unspecified Age group (in years): 0–4, 5–9, 10–14, 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, ≥65 Geographic area: administrative unit^b Type of TB: pulmonary bacteriologically confirmed, pulmonary clinically diagnosed, extrapulmonary Treatment history: new, recurrent, unknown</p>	Quarterly, annual
<p><i>Notification rate:</i> Number of people diagnosed with a new episode of TB per 100 000 population</p>	<p><i>Numerator:</i> Number of people diagnosed with a new episode of TB × 100 000</p> <p><i>Denominator:</i> Number of people in the population</p>	<p>Sex: male, female, intersex, unknown/unspecified Age group (in years): 0–4, 5–9, 10–14, 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, ≥65 Geographic area: administrative unit^b</p>	Quarterly, annual



Chapter 4. Core indicators to report & use



Excerpts of key tables (2/3)

Table 4.7 Five additional indicators that are recommended for annual reporting in countries with a case-based digital surveillance system

Indicator	Comment
People with presumptive TB	
Number of diagnostic tests performed for TB using WHO-recommended rapid diagnostic tests (WRDs)	These indicators can be used to measure the level of effort made to diagnose TB. Digital laboratory databases can be used as the source of data for these indicators.
Percentage of tests for TB that were positive using WRDs	
People diagnosed with TB disease	
Rapid testing for TB: Percentage of people diagnosed with a new episode of TB who were initially tested with a WRD	Rapid testing is important in all countries. WRDs are highly accurate, reduce the time to treatment initiation, impact patient-important outcomes, and are cost-effective. A major consequence of the insufficient use of WRDs is the large gap in the detection of drug resistance.
Contacts of people diagnosed with bacteriologically confirmed pulmonary TB disease	
Contact investigation coverage: Percentage of household contacts (or all close contacts) who were evaluated for TB (disease or infection)	WHO guidelines on TB preventive treatment recommend that all household contacts of a positive TB case should be evaluated for TB disease and infection (4). Contact investigation coverage and the coverage of TB preventive treatment are two of the indicators recommended by WHO for monitoring implementation of the WHO End TB Strategy. Global targets have been set for TB preventive treatment that have been endorsed by all UN Member States.
Preventive treatment of contacts: Percentage of household contacts (or all close contacts) who were started on TB preventive treatment, out of those eligible	
Of note, some national guidelines recommend investigation of all close contacts, with varying definitions among countries of what constitutes a “close” contact.	



Chapter 4. Core indicators to report & use



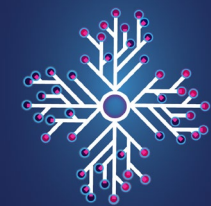
Excerpts of key tables (3/3)

Table 4.8 Candidates for additional disaggregations of data about the annual number of notifications of people diagnosed with a new episode of TB disease in countries with a case-based digital surveillance system

Disaggregation	Comment
Sector of the health system (e.g. public, private for-profit, private non-profit provider)	Disaggregation of notifications by sector of the health system may be relevant in countries with large numbers of providers in the private sector (including private for-profit individual and institutional providers, as well as not-for-profit mission hospitals, nongovernmental organizations and faith-based organizations), and/or large numbers of providers in the public sector that are not within the NTP network (such as public hospitals, public medical colleges, prisons and detention centres, military facilities and public health insurance organizations). A global working group on public-private and public-public mix (PPM) for TB has identified a top priority group of countries for monitoring of TB case notifications by type of health provider (7). ^a

Table 4.9 Examples of additional candidates for inclusion in the core set of indicators for national annual reporting and use in countries with a case-based digital surveillance system

Indicator	Comments
People diagnosed with TB disease	
Percentage of people with a new episode of TB that is clinically diagnosed who had a WRD test	Experience in some countries has shown an unduly high proportion of clinically diagnosed cases had a negative WRD test result. In such settings, it may be important to monitor this indicator. The expected proportion when WRDs are widely used is in the range 10–20% (Web Annex B). Note that if a WRD result is positive then the person should be classified as having bacteriologically confirmed pulmonary TB.
Numerator: Number of people with a new episode of pulmonary TB that is clinically diagnosed who had a WRD × 100	
Denominator: Number of people with a new episode of pulmonary TB that is clinically diagnosed	



Chapter 5. Core data elements to collect

so that all indicators from Chapter 4 can be calculated



Excerpt of key table

Table 5.1 Core set of data items to record for every person with TB disease

This table is relevant for all countries, irrespective of whether a case-based digital or paper-based aggregated surveillance system is in place. Suggested codes have been included for each data item. The purpose of these codes is to show how indicators are calculated from the data items (see [Section 5.5](#)).

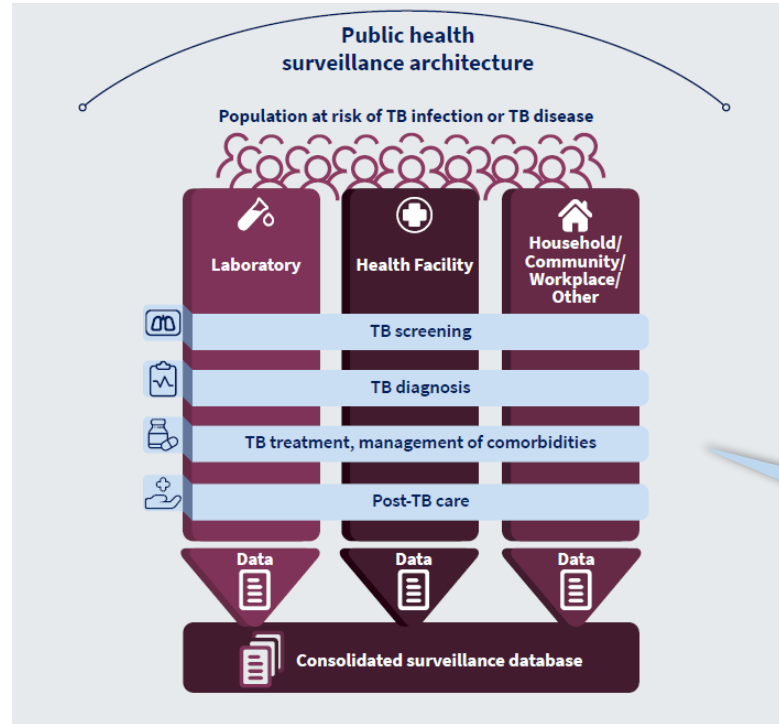
Data item name	Code	Possible values	Definition (for full details related to definitions, see Chapter 3)
Health facility ID	facility_id		Unique ID of the health facility that recorded the notification
Notification details of the person with TB disease			
Person ID	person_id		Unique ID of the person moving through the health system
Registration date	registered_date	(valid date)	Date when registration details of the person with TB were added to the TB register. This defines the cohort period in which the person will be included in treatment outcome monitoring (e.g. date between 1 January and 31 March = Quarter 1 of that year). If a person is re-registered (for example after needing a change of treatment regimen), the registration date refers to the date at which the person was re-registered.
Age	age		Age at last birthday at time of registration (in years)
Sex	sex	F	Female: Sex assigned at birth is female (ICD-11 code XX2V25)
		M	Male: Sex assigned at birth is male (ICD-11 code XX2UQ8)
		I	Intersex: The person was born with sex characteristics (including genitals, gonads and chromosome patterns) that do not fit typical binary notions of male or female bodies (ICD-11 code XX45B7)
		U	Unknown/unspecified (ICD-11 code XX2PX3)

Chapter 6. Digital surveillance



Unified, digital, case-based environment

- 6.1 Advantages of case-based digital surveillance
- 6.2 How should national case-based digital TB surveillance work in practice?
- 6.3 WHO digital packages for TB surveillance



- Country examples
- WHO DHIS2 TB digital packages
- Software agnostic digital adaptation kits for TB



Chapter 7. Data quality



Data validation checks & processes

Fig. 7.1 An illustration of the recording and reporting process for TB data

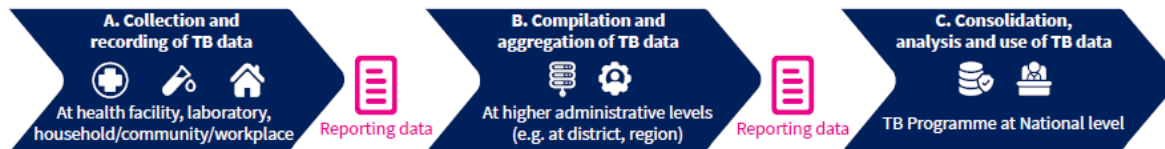
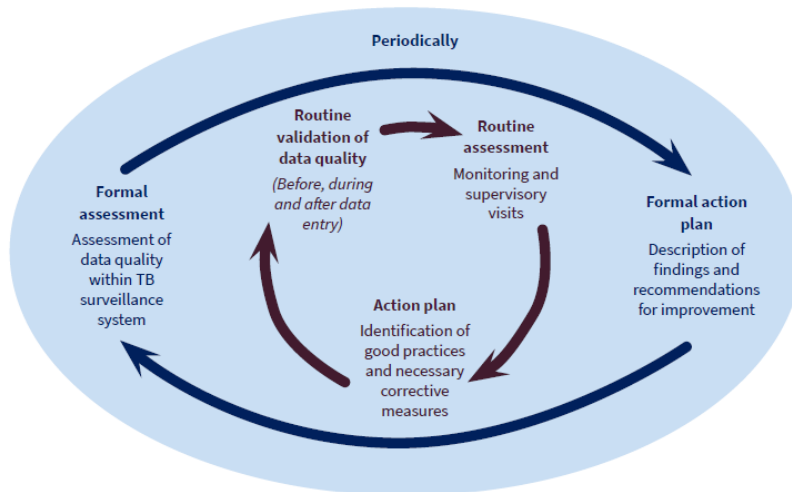


Fig. 7.2 An illustration of how routine data validation checks and periodic assessments of data quality can be implemented as part of NTP plans



7.1 Dimensions of data quality

7.2 Governance and design features of a TB surveillance system that can help to ensure data quality

7.3 Routine data validation checks

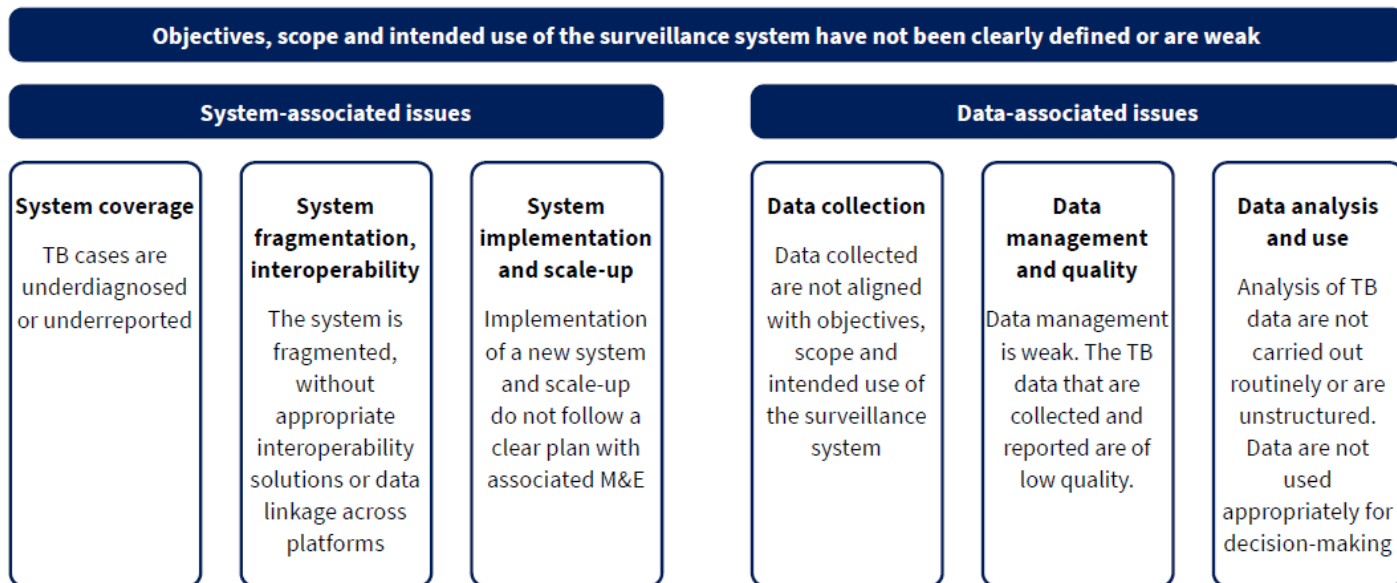
7.4 Periodic evaluations of data quality

Web annex A. Commonly observed problems & suggested solutions



Synthesis of findings from epidemiological reviews

Fig. 1.1 Overview of commonly observed data- and system-associated problems of TB surveillance



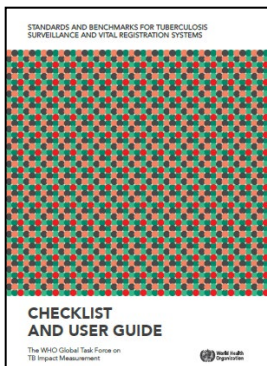


Web annex B. TB surveillance checklist (2nd ed.)



Integral part of a TB epidemiological review

Describe and assess routine TB surveillance and vital registration systems and their capacity for measuring TB burden accurately (in terms of incidence and mortality)



Part A: 18 questions, with structured outcomes, to serve as a standardized framework for characterizing the TB surveillance system.

Part B: 17 standards, with associated benchmarks, to assess the capacity of the TB surveillance system.

- Section 1 (10 core standards): data quality, system coverage, vital registration
- Section 2 (3 standards for specific populations): DR-TB, TB/HIV, childhood TB
- Section 3 (2 standards for care): quality of treatment outcomes data
- Section 4 (2 standards for prevention): quality of programmatic management of TPT data

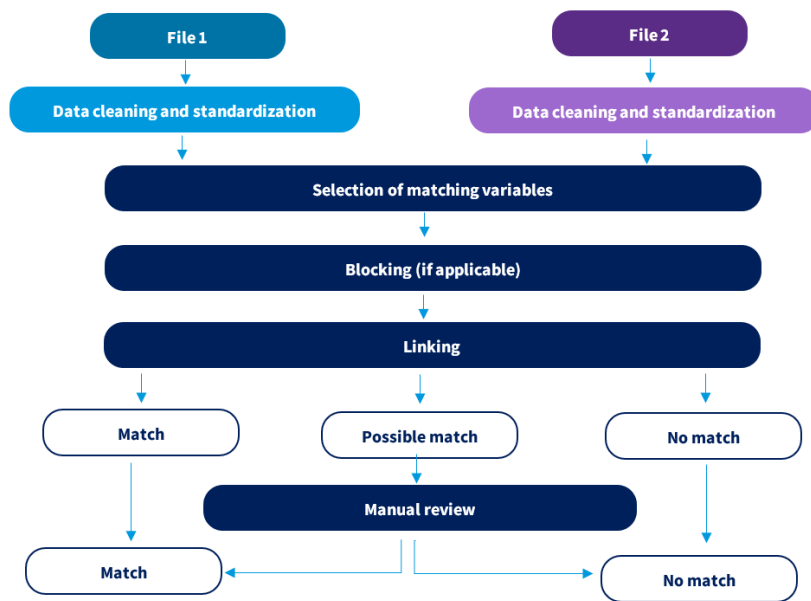
Summary of updates in 2nd Edition:

Updates to the benchmarks for standards **B1.6**, **B1.9**, **B1.10**, **B2.1**, **B2.2** and **B2.3**, otherwise refer to [Edition 1 User Guide](#).

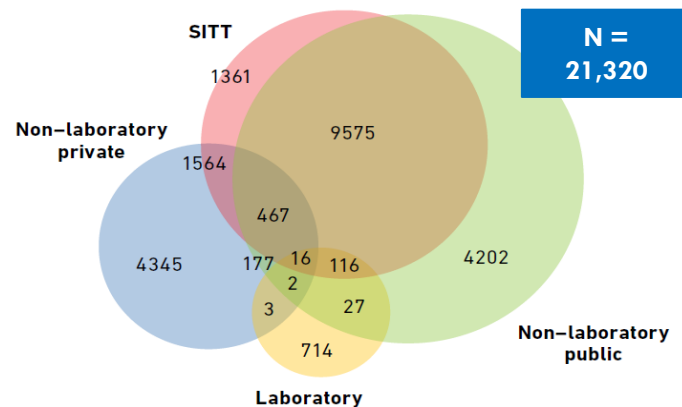
New standards: **B3.1**, **B3.2**, **B4.1**, **B4.2**.

Web annex C. Record linkage guidance

Key steps using Link Plus: both within & across files



Measuring underreporting





Web annex D. Reporting and calculations of core indicators: templates and formulae



Excerpt from template for annual reporting

Facility name _____

Report for calendar year _____

Block 1 All people diagnosed with TB disease^a during the calendar year by site of disease, method of diagnosis and previous treatment history (including people diagnosed with drug-resistant TB and people diagnosed with TB but who did not start treatment)

	New episodes			Re-registered cases ^c
	New cases ^b	Recurrent cases	Unknown previous treatment history	
Pulmonary, bacteriologically confirmed	REG.1	REG.2	REG.3	REG.8
Pulmonary, clinically diagnosed	REG.4	REG.5	REG.6	REG.9
Extrapulmonary, bacteriologically confirmed or clinically diagnosed	REG.7			REG.10
Total new episodes	REG.11 = REG.1 + REG.2 + REG.3 + REG.4 + REG.5 + REG.6 + REG.7			
Total notified	REG.12 = REG.1 + REG.2 + REG.3 + REG.4 + REG.5 + REG.6 + REG.7 + REG.8 + REG.9 + REG.10			

^a Include all people diagnosed with TB regardless of whether anti-TB treatment was started or not. Do not include patients transferred in from other facilities.

^b People diagnosed with TB who have never been treated for TB or have only ever taken TB drugs for less than 1 month.

^c Treatment after failure, treatment after lost to follow-up or treatment after unknown outcome of most recent anti-TB treatment.

More information

For more information, please contact:

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- Gita Parwati parwatic@who.int
- Marek Lalli lallim@who.int

[World Health Data Hub](#)

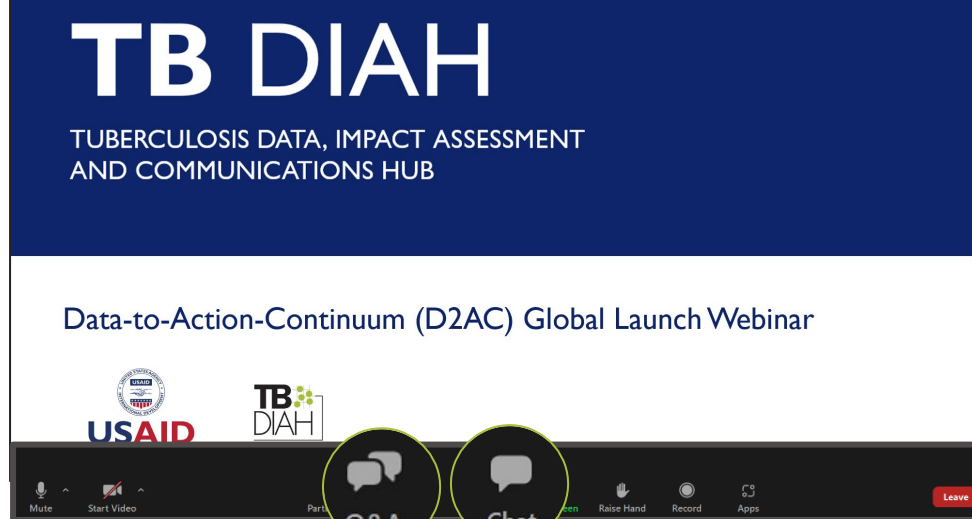
[Global Strategy on digital health 2020-2025](#)

[SMART guidelines](#)

[Example of DAK for HIV](#)

[WHO DHIS2 TB digital packages](#)

[WHO Toolkit for routine health information systems data](#)



Please use the **Q&A** for all questions.

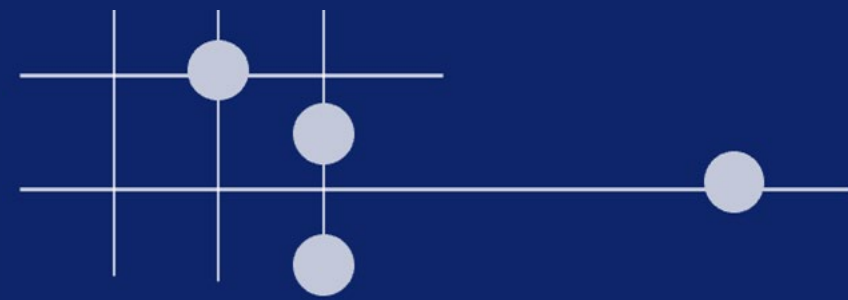
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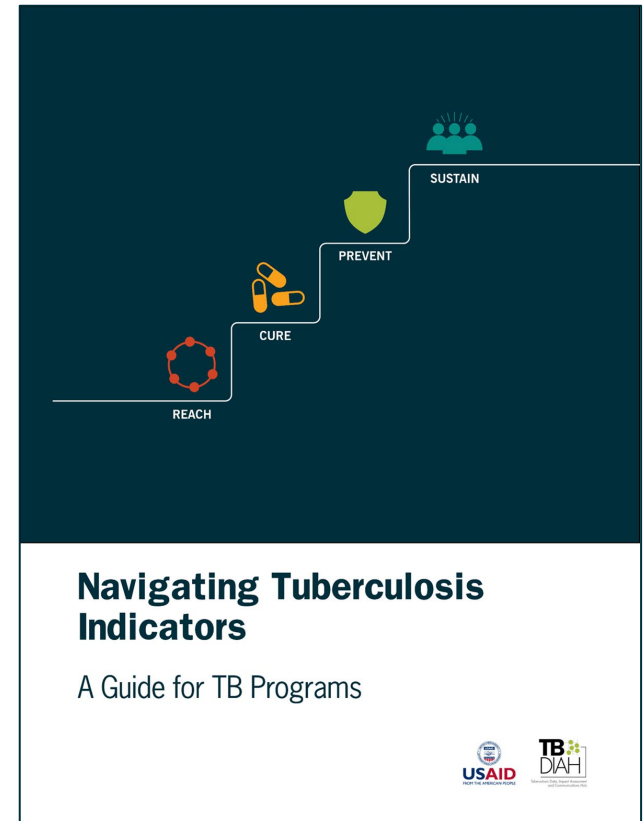
The webinar is being recorded and a link to the recording and presentation will be shared with all attendees and registrants tomorrow by a Zoom link and email.



PBMEF Background and Revision Process

What is the Performance-based M&E Framework (PBMEF)

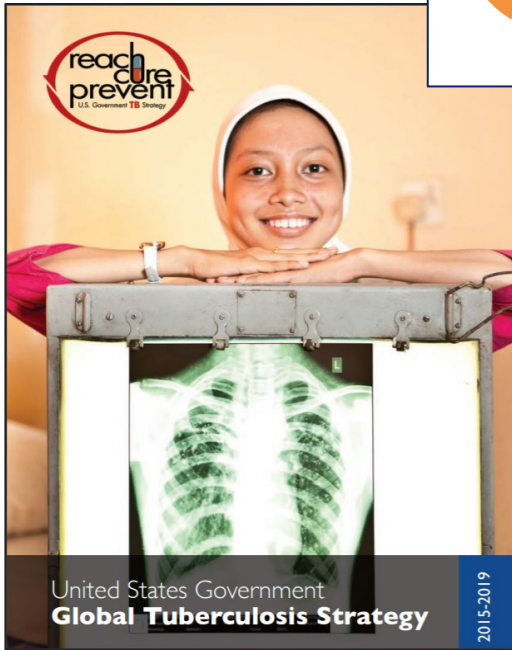
- Cornerstone of USAID's efforts to ensure effective accountability of investments in TB at global, regional, and country levels and accelerate progress to end the TB epidemic.
- PBMEF provides:
 - ✓ A set of standardized indicators to measure essential TB program outputs and outcomes
 - ✓ Details on the performance of TB programs in specific technical areas (e.g., diagnosis, treatment, TB/HIV, private sector, etc.)
 - ✓ Treatment cascades and patient pathways that are critical to understanding where gaps are and where efforts need to be strengthened.



How was the PBMEF developed?



ABOUT THE
**UN GENERAL ASSEMBLY
HIGH-LEVEL MEETING ON TB**
26 SEPTEMBER 2018, NEW YORK



THE
END TB
STRATEGY



USAID Global TB Strategy (2023– 2030)

Results framework: 90-90-90+ Prevention

USAID will work with partners worldwide to:

- **reach** every person with TB
- **cure** those in need of treatment
- **prevent** new infections and progression to active TB disease, while
- Scaling-up **innovations** in detection, care, and treatment, and
- Fostering local ownership to **sustain** TB programs that contribute to pandemic preparedness

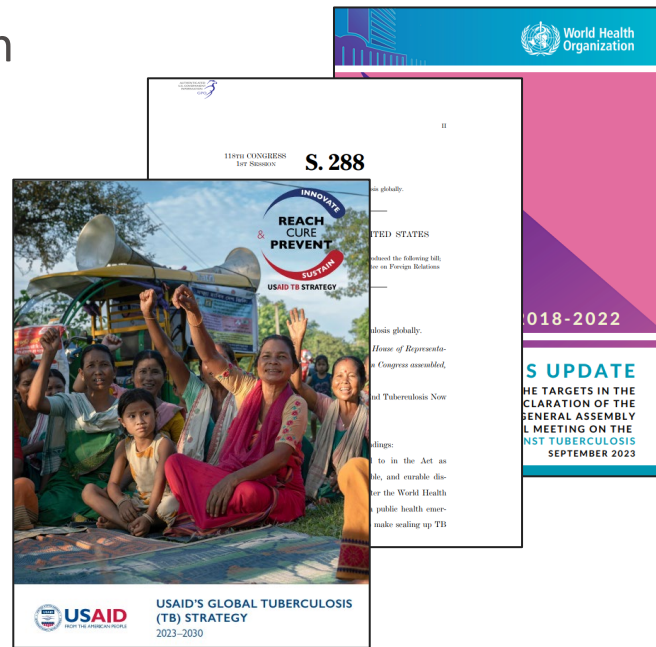


Measurements	Target
Impact	<ul style="list-style-type: none">• Reduce TB incidence rate by 35% by 2030• Reduce TB mortality rate by 52% by 2030
Outcome	<ul style="list-style-type: none">• 90% of incident TB cases diagnosed and initiated on treatment¹• 90% of incident DR-TB cases diagnosed and initiated on treatment• 90% treatment success rate (TSR) for DS-TB and DR-TB• Provide TB preventive treatment (TPT) to 30,000,000
Process	<ul style="list-style-type: none">• All priority countries rapidly introduce new TB tools and approaches• All priority countries have strong TB national networks and USAID partnerships inclusive of affected communities• All priority countries include appropriate TB interventions in pandemic preparedness plans• All priority countries have implemented plans to address socio-economic determinants and health-related risk factors that impact the TB epidemic

<https://www.tbdiah.org/resources/publications/usaids-global-tb-strategy/>

PBMEF revision process

- In addition to the new strategy, new guidelines and targets have been released by WHO and UNHLM, and the End TB Now Act of 2023 (ETNA) has been introduced in the U.S. Congress
- To address these changes, TB DIAH is working with USAID, USAID advisors, and USAID partners through the TB Data Special Interest Group (TB SIG) to update the PBMEF
- Revisions will ensure PBMEF:
 - ✓ Meets the reporting requirements
 - ✓ Supports countries to report required indicators
 - ✓ Aligns with ongoing changes



PBMEF governance through TB Data SIG

- TB Data Special Interest Group (SIG) is an advisory board and resource group of technical experts to serve USAID's TB data needs to measure performance and to inform programmatic decision making
- The SIG will provide governance and oversight to any updates to the PBMEF indicators and their definitions

Interested in joining the SIG?

TB Data SIG Interest Form: <https://bit.ly/48oVDEO>

PBMEF suite of resources

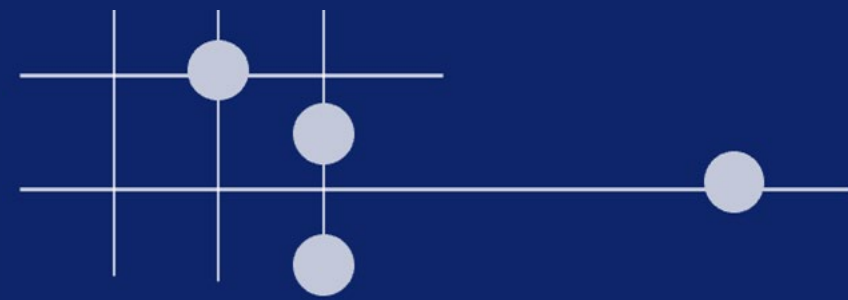
Available now:

- Interim PBMEF TB Indicator Compendium
- Interim PBMEF Indicator Matrix
- Updated MEL Plan Template & Guidance
- Original PBMEF TB Indicator Guide & Compendium

Coming Spring 2024:

- Updated PBMEF TB Indicator Compendium
- Updated PBMEF TB Indicator Guide

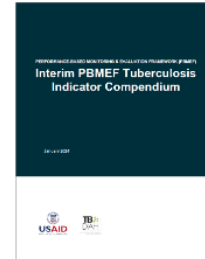




Interim PBMEF Publications: New M&E Tools

New publications

- Now available:
 - ✓ Interim PBMEF Tuberculosis Indicator Compendium
 - ✓ Interim PBMEF Indicator Matrix
 - ✓ MEL Plan Template



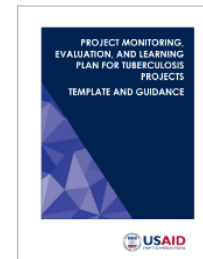
Interim PBMEF Compendium



Interim PBMEF Indicator Matrix

TB Monitoring, Evaluation, and Learning (MEL) Plan Template and Guidance

Includes the TB MEL plan template with instructions, an example of a completed sample MEL plan, and a blank template for implementing partners (IPs) to draft their own MEL plans for TB activities.

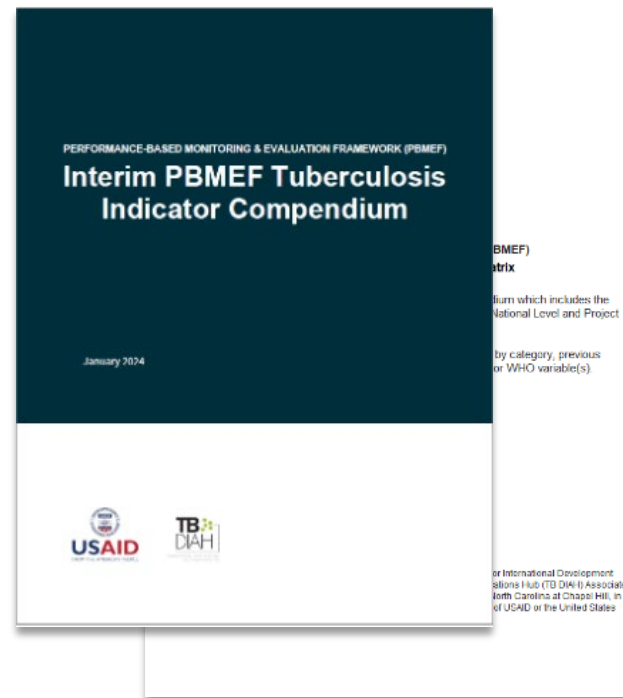


MEL Plan Template and Guidance

<https://www.tbdiiah.org/assessments/pbmeff>

Interim PBMEF Tuberculosis Indicator Compendium & Matrix

- Compendium document includes:
 - ✓ Essential Indicators List
 - ✓ Standardized indicator reference sheets
 - ✓ Summary table or “Matrix” summarizes essential indicators (static version in compendium, but also posted in Excel format)
- Note the original publication is still available for the extended indicators and will be replaced when the full revision is complete



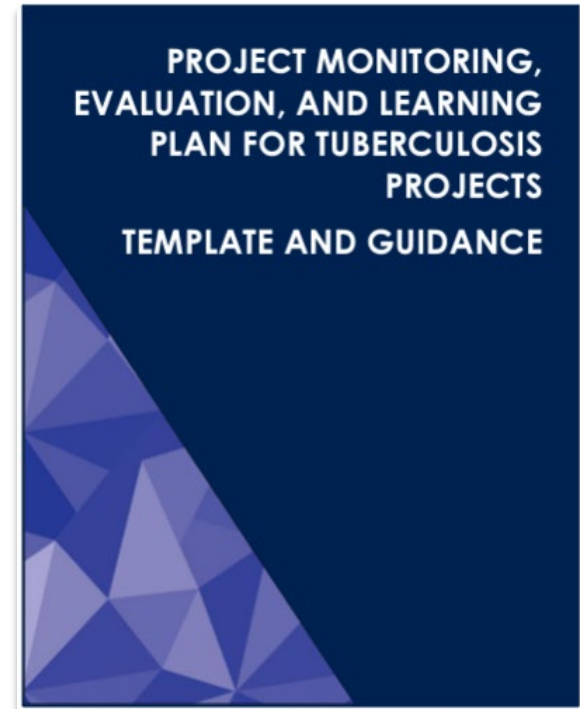
Interim PBMEF Tuberculosis Indicator Compendium (Cont'd)

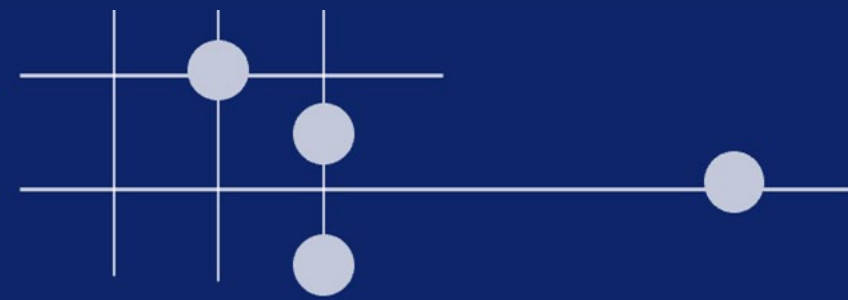
- Full indicator reference sheets for all essential indicators assist with standardized data collection and reporting
- The indicator reference sheet pictured, for example, is for TB detection rate (treatment coverage)

Indicator name and number	DT_RT: TB Detection Rate (Treatment Coverage) <i>Previously [DT-3]</i>
Definition	Percent of people with new and relapse TB and with unknown previous TB treatment history (forms) who were notified during the reporting period, out of the estimated number of people incident TB for that year. <i>Note: This indicator is also referred to as "Treatment Coverage Rate"; the name is updated to emphasize that treatment coverage is not represented in this data.</i> <i>Calculation: (Numerator/Denominator) x 100</i>
Numerator	Number of people with new and relapse TB (and with unknown previous TB treatment history), all forms (bacteriologically confirmed plus clinically diagnosed, pulmonary and extra pulmonary), who were notified in the reporting period.
Denominator	Estimated incidence of TB (all forms) in the same reporting period.
Category	REACH
Indicator type	Core outcome
PBMEF level	Core
Unit of measure	Percent of estimated TB
Data type	Percentage
Disaggregate by	Age (<15, 15+), sex
Reporting level	All Core PBMEF indicators should be reported at the national level; data may also be collected subnationally for more granular monitoring.
Reporting frequency	This indicator should be reported on a semiannual basis at a minimum. More frequent monitoring on a quarterly or monthly basis is recommended. Performance plans and reports (PPRs) for this indicator are based on calendar year (CY) periodicity to reflect national level attainment and align with the USAID congressional reporting requirements.
Data sources	The numerator is reported from National TB Program (NTP) official records. Quarterly report on TB case registration in the basic management unit. This indicator is related to incident TB; therefore, the following category of patients should not be included in the data reported: <ul style="list-style-type: none"> • Treatment after failure patients (previously been treated for TB and whose treatment failed at the end of their most recent course of treatment) • Treatment after loss to follow-up patients (previously been treated for TB and whose treatment was declared lost to follow-up at the end of their most recent course of treatment) • Other previously treated patients Care should be taken to properly address common reporting issues for TB and who should be reported and not double counted. The denominator is available from the WHO website. This is a standard reporting guideline.

MEL Plan Template

- Three-part document;
 - ✓ Section-by section instructions for a MEL
 - ✓ Blank, fillable MEL Plan template
 - ✓ Sample MEL plan
- Intended as a tool for projects with TB funding
- Not mandatory to use this template, but highly encouraged
- ADS-mandated components of a MEL plan are highlighted in the document

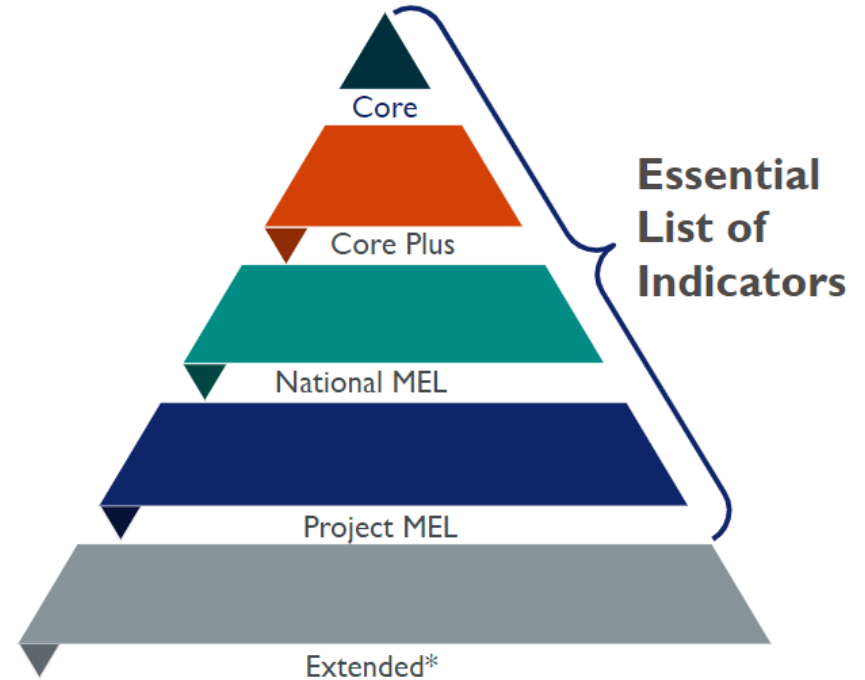




Essential List of Indicators

Levels of PBMEF Indicators

- **Core:** established 10 priority indicators
- **Core Plus:** more detail to core indicators
- **National:** additional data that should be available at national level
- **Project:** additional steps in cascades that may not be available at national level
- **Extended:** index of additional standardized indicators to help meet project needs for specific activities, if more detail is wanted than what is provided by essential indicators



*Note: Extended indicators are currently under revision

Essential Indicator Summary Table: PBMEF Matrix

File Home Insert Page Layout Formulas Data Review View Automate Developer Help Acrobat									
A3 : fx Reach									
A	B	C	D	E	F	G	H	I	J
Category	Previous #	Indicator short	Indicator Name	PBMEF Lev	Definition	Numerator	Denominator	Disaggregation	WHO variables
Reach	DT-3	DT_RT	TB Detection Rate (Treatment Coverage)	Core	Percent of people with new and relapse TB and with unknown previous TB treatment history (all forms) who were notified during the reporting period, out of the estimated number of people with incident TB for that year. Note: This indicator is also referred to as "Treatment Coverage Rate"; the name is updated to TB detection rate here to emphasize that treatment coverage is not represented in this data. Calculation: (Numerator/Denominator) x 100	Number of people with new and relapse TB (and with unknown previous TB treatment history), all forms (bacteriologically confirmed plus clinically diagnosed, pulmonary and extra pulmonary), who were notified in the reporting period.	Estimated incidence of TB (all forms) in the same reporting period	Age (<15, 15+), sex	c_newinc divided by e_inc_num
Reach	DT-12	BAC_CON	Percent Bacteriologically Confirmed	Core	Percent of people with new and relapse pulmonary TB who are bacteriologically confirmed. Bacteriologically confirmed: Smear positive for TB or culture positive for TB or positive for TB by a World Health Organization-recommended rapid diagnostics test (WRD): FluoroType® MTBDR (Hain), Loopamp™ MTBC detection kit (TB-LAMP), Xpert® MTB/RIF, Xpert® MTB/RIF Ultra, Truenat® MTB or MTB Plus, RealTime MTB (Abbott), BD MAX™ MDR-TB, cobas® MTB (Roche), or LF-LAM. Note: LF-LAM is included as a recommended TB test for people living with HIV (PLHIV). LF- LAM is not recommended to confirm TB in all populations and notably should not be used in outpatient settings for adults, adolescents, and children without symptoms of TB or in those with a CD4 count > 200 cells/mm3. At the time of this publication, Alere Determine™ TB LAM Ag is the only commercially available LF-LAM test. Full guidance on the use of LF-LAM can be found at: www.who.int/publications/i/item/9789241550604	Number of new and relapse bacteriologically confirmed pulmonary TB notifications (smear positive or culture positive or positive by WRD during the reporting period)	Number of people with new and relapse pulmonary TB (bacteriologically confirmed plus clinically diagnosed) during the reporting period	Age (0-4, 5-14, 15+), sex, HIV status	new_labconf plus ret_rel_labconf divided by new_clindx plus ret_rel_clindx plus new_labconf plus ret_rel_labconf
Reach	CH-5	PEDS_NOTIF	Childhood TB Notifications	Core	Number of children and adolescents (0-14 years) with new and relapse TB or with unknown previous TB treatment history, all forms, who were notified in a reporting period	Number of children and adolescents (0-14 years) with new and relapse TB or with unknown previous TB treatment history, all forms, who were notified in a reporting period	N/A	Age (0-4, 5-9, 10-14), sex, HIV status	newrel_r014 plus newrel_m014 plus newrel_sexunk014
Reach	RN-1	MDR_NOTIF	RR/MDR-TB Notifications	Core	Number of people with rifampicin-resistant (RR) and multidrug-resistant (MDR) TB notified during the reporting period. RR/MDR TB: RR-TB is TB caused by Mycobacterium Tuberculosis (M. tuberculosis) strains that are resistant to rifampicin; MDR-TB strains are resistant to at least both rifampicin and isoniazid.	Number of people with RR-TB and MDR-TB notified during the reporting period	N/A	Age (<15, 15+), sex	conf_rr_nfq

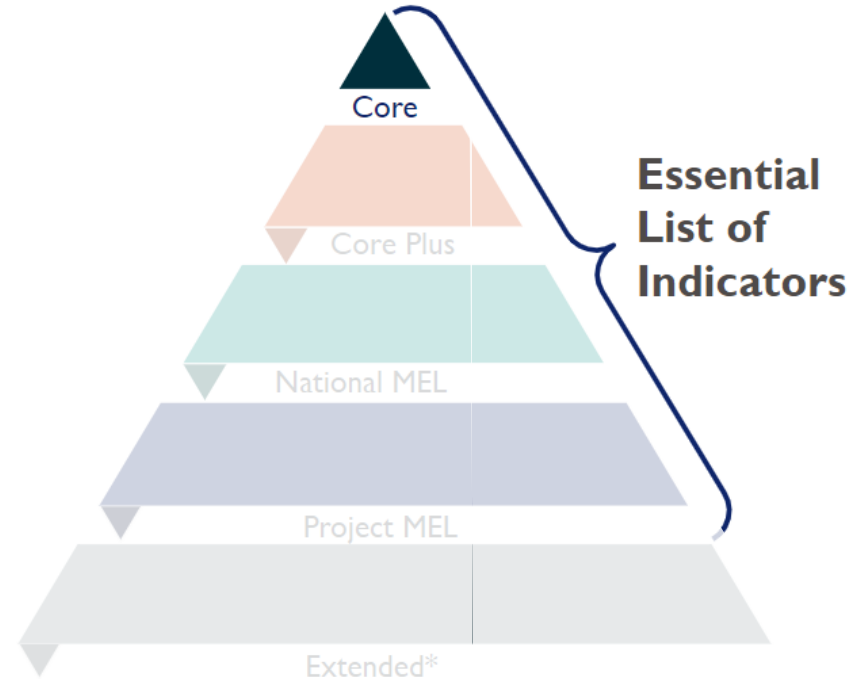
OBJECTIVES & TARGETS	PPR/ACCELERATOR	ACCELERATOR	MISSION REPORTING	
	CORE INDICATORS (10)	CORE PLUS (11)	NATIONAL LEVEL (16)	PROJECT LEVEL (30)
REACH Improve access to high-quality, patient-centered tuberculosis (TB), drug-resistant TB (DR-TB) and TB/HIV services 90% diagnosed and on treatment	DT_RT: TB Detection Rate (Treatment Coverage) BAC_CON: Percent Bacteriologically Confirmed PEDS_NOTIF: Childhood TB Notifications MDR_NOTIF: RR/MDR Notifications PR_NOTIF: Private Sector TB Notifications CON_SCRN: Percent of Contacts with	NEWREL_WRD: Rapid diagnostic testing at time of initial diagnosis NEWREL_DST: Percent of people with new and relapse TB with drug susceptibility testing (DST) RET_DST: Percent of people with previously treated TB with drug susceptibility testing (DST) XDR_NOTIF: Pre-XDR/XDR notifications	PEDS_BAC_CON: Percent of children and adolescents (0-14 years) with new and relapse pulmonary TB who are bacteriologically confirmed PEDS_MDR_NOTIF: MDR-TB notifications among children and adolescents (0-14 years) DT_CI_INIT: Percent of people with notified TB with a contact investigation initiated	DT_SCRN: Number of people screened for TB DT_SCRN_COMM: Number of people screened for TB disease outside of health facilities DT_PRES: Number of people with presumptive TB <i>(more indicators than listed here)</i>
CURE Improve TB service delivery 90% DS and DR-TB treatment success rate	DS_TSR: DS-TB Treatment Success Rate DR_TSR: DR-TB Treatment Success Rate	TX_DR_ENROLL: DR-TB enrolled on treatment TX_STR_ENROLL: DR-TB "all oral" short regimen initiations TX_LTR_ENROLL: DR-TB "all oral" longer regimen initiations TX_DR_ADR: Number of people with adverse reactions to DR-TB treatment	TX_DS_OUT: DS-TB treatment outcomes TX_DR_OUT: DR-TB treatment outcomes PEDS_TSR: Treatment success rate in children and adolescents (0-14 years) PLHIV_TSR: Treatment success rate PLHIV TX_DS_ENROLL: DS-TB treatment initiations	TX_DS_SUPPORT: Percent of people on DS-TB treatment who received treatment support TX_DR_SUPPORT: Percent of people on DR-TB treatment who received treatment support <i>(more indicators than listed here)</i>
PREVENT Increase prevention of TB transmission & disease progression 30 million on TB preventive treatment	TPT_ENROLL: TPT Initiations	TPT_CON_ENROLL: TPT initiations among contacts TPT_COMPL: TPT completions	TPT_CON_04: Number of TPT initiations among contacts <5 TPT_PLHIV_ENROLL: Number of TPT initiations in PLHIV	HCW_SCRN: Percent of HCWs screened for TB HCW_TBI_POS: Percent of HCWs diagnosed with TBI TPT_ADR: Number of people with adverse reactions to TPT <i>(more indicators than listed here)</i>
SUSTAIN Increase commitment for the sustainability of TB efforts Global investments reach \$22 billion by 2027	SN_DOMESTICR: Domestic Financing	SN_TB_INSUR: Existence of national or social health insurance system whose benefit package includes TB clinical services	SN_MQS: TB drugs meeting international minimum quality standards SN_CQI: Continuous Quality Improvement (CQI) program in place	STKOUT_FLD: Stockout of any first-line TB treatment drugs STKOUT_SLD: Stockout of any second-line TB treatment drugs STKOUT_WRD: Stockout of TB rapid molecular test and related commodities <i>(more indicators than listed here)</i>

Decrease TB Mortality

Decrease TB Incidence

PBMEF Core Indicators

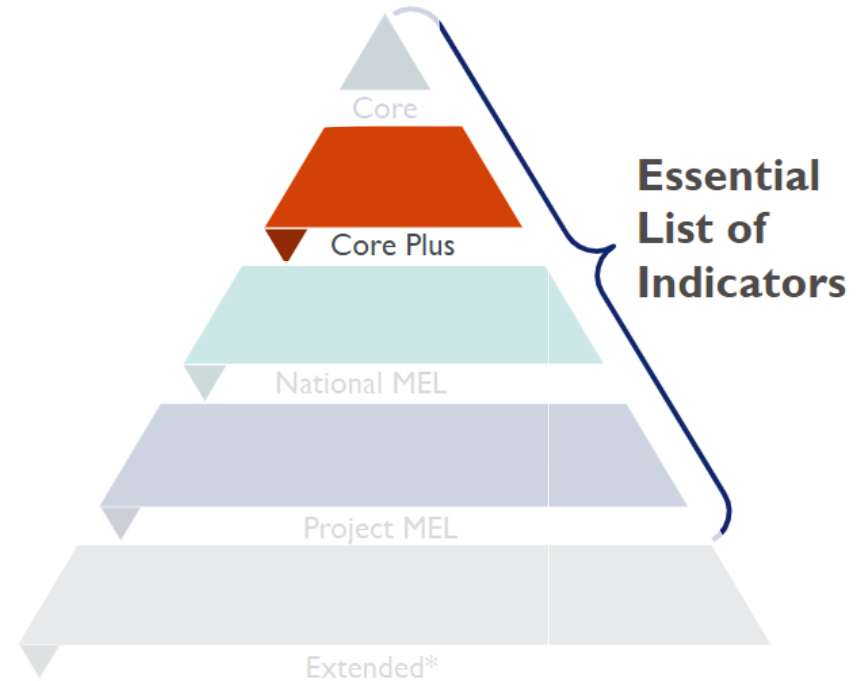
- Reported at a national level for PPR/ Accelerator
- At the mission level, missions should be reporting on all these indicators through any combination of assigning them to partners
- Partners should select as many of these as are applicable; each partner receiving TB funding must include core indicator(s) in MEL plans



*Note: Extended indicators are currently under revision

PBMEF Core Plus Indicators

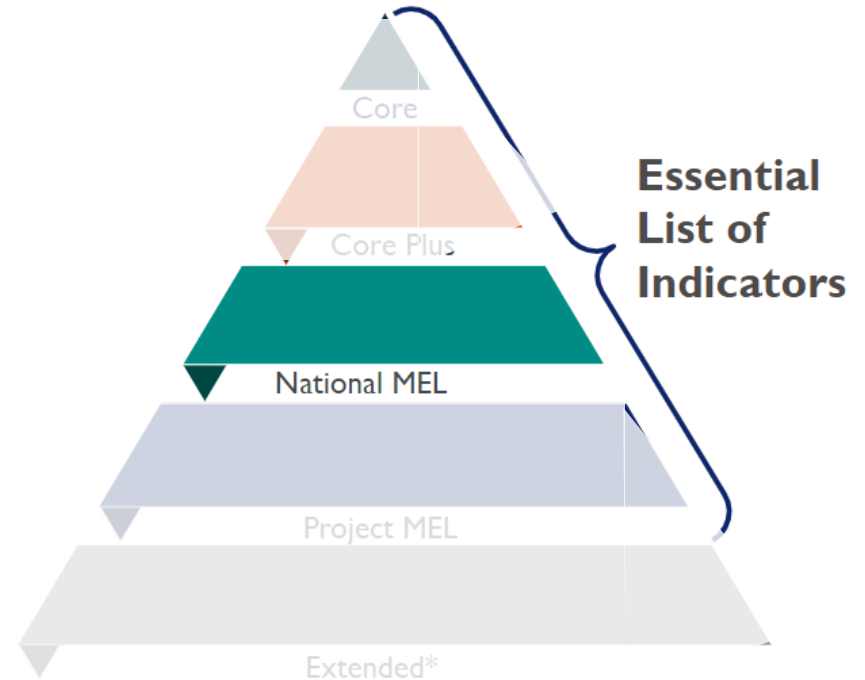
- Report at national level for USAID Accelerator Calls
- At the mission level, missions should be reporting on all these indicators for Accelerator calls
- Partners should select as many of these as are applicable



*Note: Extended indicators are currently under revision

PBMEF National Indicators

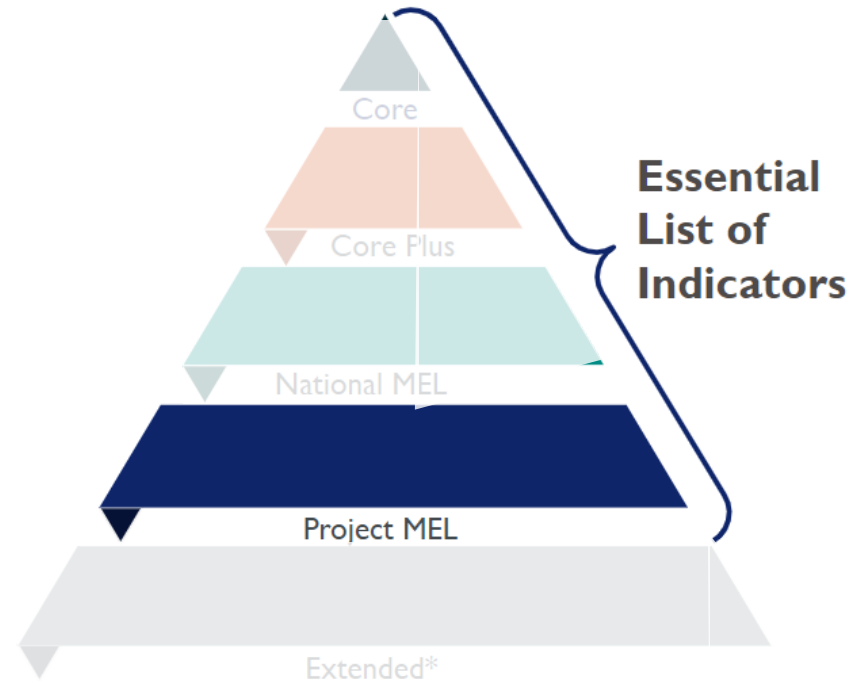
- These should be available and reported at the national level, through project-level (sub-national) data may be reported if national data is unavailable
- Partners should include all relevant indicators in their MEL plans
- Help meet the reporting requirements articulated in the End TB Now Bill (ETNA)



*Note: Extended indicators are currently under revision

PBMEF Project Indicators

- Expected to be reported at the project level as these data may not be available at national level, though if the data is available at national level this should be reported/monitored
- Partners should include all relevant indicators in their MEL plans
- Help meet the reporting requirements articulated in the End TB Now Bill (ETNA)



For more information

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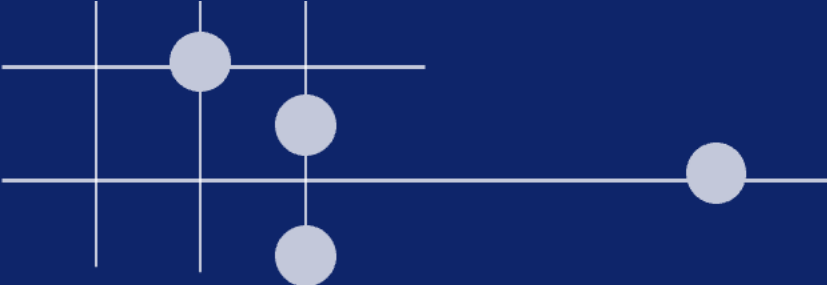
sahmedov@usaid.gov

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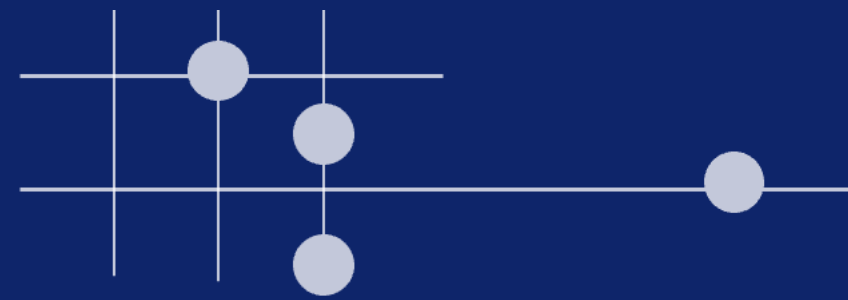
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Q&A



Thank you!

Live Links

TBDIAH.org



<http://www.tbdiiah.org>

PBMEF



<https://www.tbdiiah.org/assessments/pbmef/>

QTSA



<https://www.tbdiiah.org/assessments/quality-of-tuberculosis-services-assessments/>

D2AC



<https://www.tbdiiah.org/assessments/d2ac/>

Data Analysis &
Visualizations



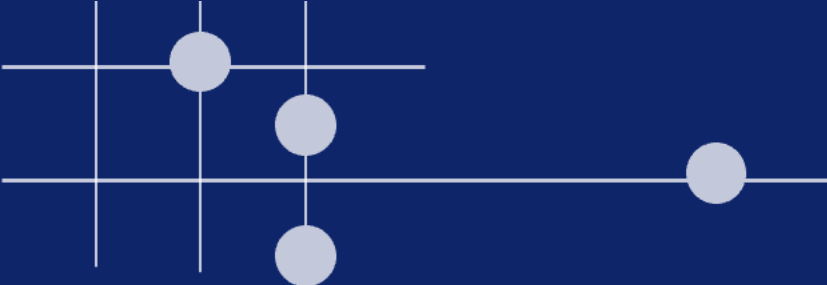
<http://hub.tbdiiah.org>



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Extra Slides

CORE INDICATORS

- Reported at a national level for PPR/ Accelerator
- At the mission level, missions should be reporting on all these indicators through any combination of assigning them to partners
- Partners should select as many of these as are applicable; each partner receiving TB funding must include core indicator(s) in MEL plans

Full Framework



- ✓ DT_RT: TB Detection Rate (Treatment Coverage)
- ✓ BAC_CON: Percent Bacteriologically Confirmed
- ✓ PEDS_NOTIF: Childhood TB Notifications
- ✓ MDR_NOTIF: RR/MDR-TB Notifications
- ✓ PR_NOTIF: Private Sector TB Notifications
- ✓ CON_SCRN: Percent of Contacts Screened for TB



- ✓ DS_TSR: DS-TB Treatment Success Rate
- ✓ DR_TSR: DR-TB Treatment Success Rate



- ✓ TPT_ENROLL: TPT Initiations



- ✓ SN_DOMESTICR: Percent of TB Financing Received from Domestic Sources

ACCELERATOR REPORTING

CORE PLUS

- Report at national level for Accelerator
- At the mission level, missions should be reporting on all these indicators for Accelerator calls
- Partners should select as many of these as are applicable

Full Framework



- ✓ NEWREL_WRD: Rapid diagnostic testing at time of initial diagnosis
- ✓ NEWREL_DST: Percent of people with new and relapse TB with drug susceptibility testing (DST)
- ✓ RET_DST: Percent of people with previously treated TB with drug susceptibility testing (DST)
- ✓ XDR_NOTIF: Pre-XDR/XDR Notifications



- ✓ TX_DR_ENROLL: DR-TB treatment initiations
- ✓ TX_STR_ENROLL: DR-TB "all oral" short treatment regimen initiations
- ✓ TX_LTR_ENROLL: DR-TB "all oral" longer treatment regimen initiations
- ✓ TX_DR_ADR: Number of people with adverse reactions to DR-TB treatment



- ✓ TPT_CON_ENROLL: TPT initiations among contacts
- ✓ TPT_COMPL: TPT Completions



- ✓ SN_TB_INSUR: Existence of a national or social health insurance system whose benefit package includes TB clinical services

MISSION REPORTING

NATIONAL LEVEL

- These should be available and reported at the national level, through project-level (sub-national) data may be reported if national data is unavailable
- Partners should include all relevant indicators in their MEL plans
- Help meet the reporting requirements articulated in the End TB Now Bill (ETNA)

Full Framework



- ✓ PEDS_BAC_CON: Percent children and adolescents (0–14 years old) with new and relapse pulmonary TB who are bacteriologically confirmed
- ✓ PEDS_MDR_NOTIF: MDR-TB notifications among children and adolescents (0-14 years)
- ✓ DT_CI_INIT: Percent of people with notified TB with a contact investigation initiated
- ✓ DT_CON_PRES: Number of contacts with presumptive TB
- ✓ DT_CON_TST: Number of contacts who received TB diagnostic testing
- ✓ DT_CON_DX: Number of contacts diagnosed with active TB disease
- ✓ DT_CON_TX: Number of contacts who initiated TB treatment



- ✓ TX_DS_OUT: DS-TB treatment outcomes
- ✓ TX_DR_OUT: DR-TB treatment outcomes
- ✓ PEDS_TSR: Treatment success rate in children and adolescents (0-14 years)
- ✓ PLHIV_TSR: Treatment success rate among PLHIV
- ✓ TX_DS_ENROLL: DS-TB treatment initiations



- ✓ TPT_CON_04: Number of TPT initiations among contacts <5
- ✓ TPT_PHLIV_ENROLL: Number of TPT initiations among PLHIV



- ✓ SN_CQI: Continuous Quality Improvement (CQI) programs in place
- ✓ SN_MQS: TB drugs meeting international minimum quality standards

MISSION REPORTING

PROJECT LEVEL

- Expected to be reported at the project level as these data may not be available at national level, though if the data is available at national level this should be reported/monitored
- Partners should include all relevant indicators in their MEL plans
- Help meet the reporting requirements articulated in the End TB Now Bill (ETNA)

Full Framework



- ✓ DT_SCRN_COMM: Number of people screened for TB disease outside of health facilities
- ✓ DT_SCRN: Number of people screened for TB
- ✓ DT_PRES: Number of people with presumptive TB
- ✓ DT_TST: Number of people with presumptive TB who received diagnostic testing
- ✓ DT_WRD: Number of people with presumptive TB who were tested with a rapid diagnostic test
- ✓ DT_CXR: Number of people with presumptive TB who received a chest X-ray (CXR)
- ✓ NNS: Number needed to screen
- ✓ NNT: Number needed to test
- ✓ DR_CI_INIT: Percent of people with DR-TB who had contact investigations initiated
- ✓ CON_TBI_TST: Number of contacts tested for TBI
- ✓ PR_BAC_CON: Percent bacteriologically confirmed in private sector
- ✓ MH_SCRN: Percent of people diagnosed with TB and screened for mental health disorders
- ✓ TAT_SUBMIT: Turnaround time (TaT): Percent of specimens submitted to a laboratory within specified target timeframe
- ✓ TAT_TST: Turnaround time (TaT): Percent of specimens received at testing laboratory and tested within specified target timeframe
- ✓ TAT_RPRT: Turnaround time (TaT) Percent of specimens tested and results report to referring facility (or provider) within specified target timeframe



- ✓ TX_DS_SUPPORT: Percent of people on DS-TB treatment who received treatment support
- ✓ TX_DR_SUPPORT: Percent of people on DR-TB treatment who received treatment support
- ✓ MH_TX: Percent of people with TB who received psychotherapeutic interventions
- ✓ DM_SCRN_POS: Percent screened positive for diabetes among people confirmed with TB



- ✓ CON_TBI_POS: Number of contacts tested positive for TBI
- ✓ HCW_SCRN: Percent of HCWs screened for TB
- ✓ HCW_TBI_POS: Percent of HCWs diagnosed with TBI
- ✓ TPT_ADR: Number of people with adverse reactions to TPT
- ✓ SN_IPC: Congregate settings with IPC



- ✓ HWC_TRN: Percent of HCWs who received TB-related training
- ✓ STKOUT_FLD: Stockout of any first-line TB treatment drugs
- ✓ STKOUT_SLD: Stockout of any second-line TB treatment drugs
- ✓ STKOUT_WRD: Stockout of TB rapid molecular tests and related commodities
- ✓ SN_STGMA_NSP: TB stigma reduction in NSP
- ✓ SN_STGMA_ASSESS: TB stigma assessment/gap analysis available