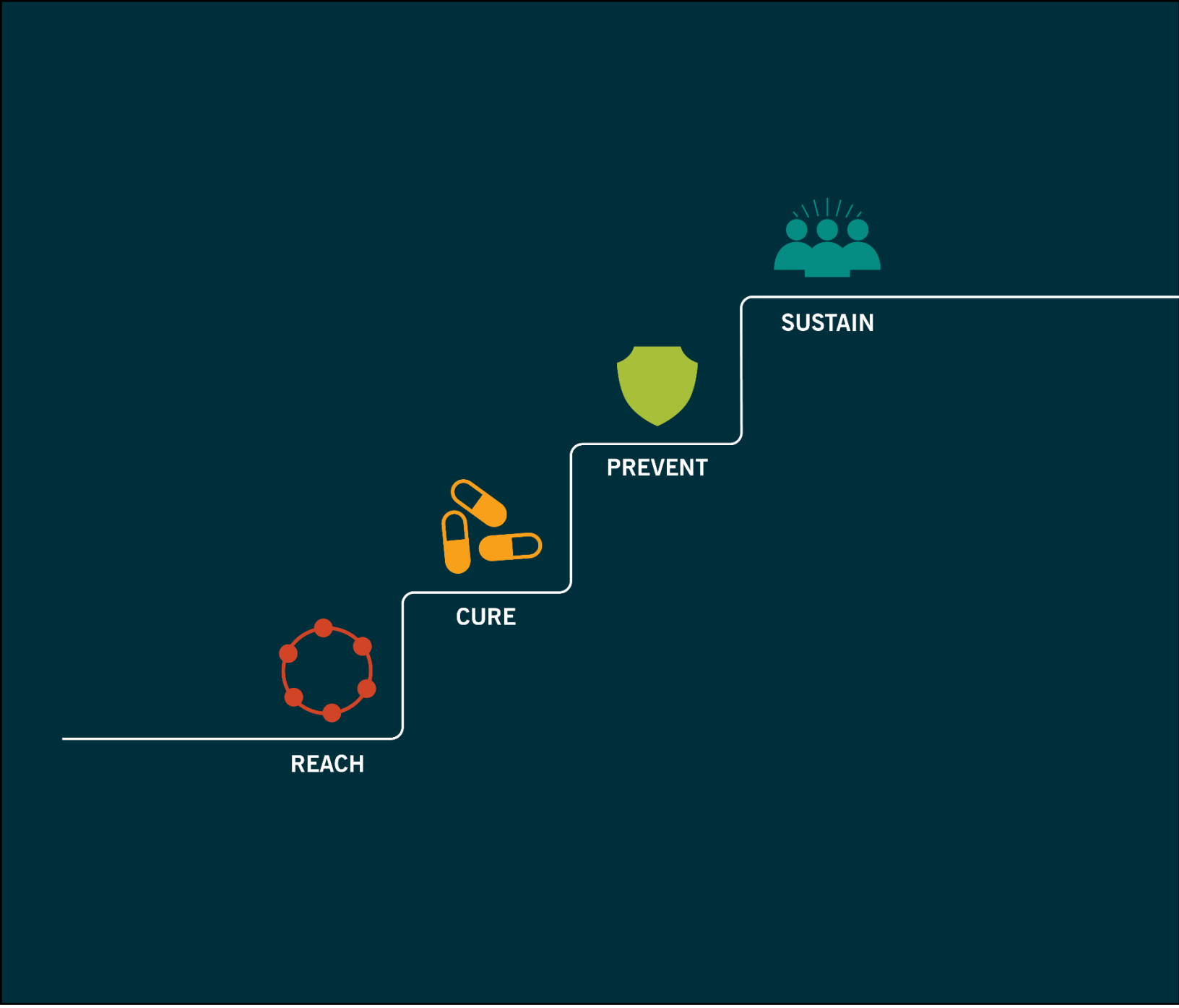

Navigating Tuberculosis Indicators

A Guide for TB Programs

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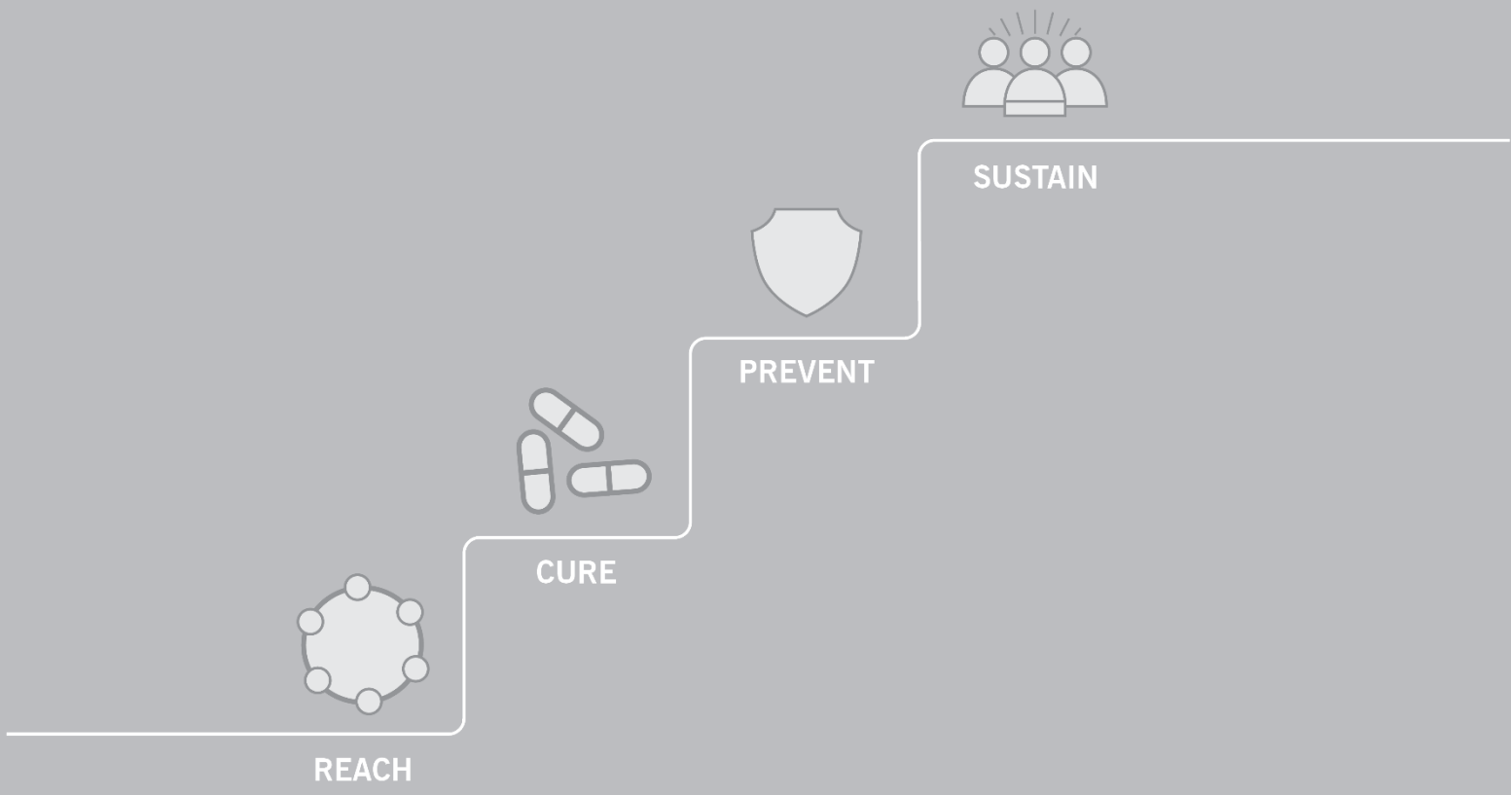
TB DIAH
Tuberculosis Data, Impact Assessment and Communications Hub



Navigating Tuberculosis Indicators

May 2021

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USAID
FROM THE AMERICAN PEOPLE

TB DIAH
Tuberculosis Data, Impact Assessment and Communications Hub

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Abbreviations

ADR	adverse drug reaction
ART	antiretroviral therapy
CI	contact investigation
DR-TB	drug-resistant tuberculosis
DS-TB	drug-susceptible tuberculosis
FLD	first-line drug
GF	Global Fund to Fight AIDS, Tuberculosis and Malaria
HCW	healthcare worker
IGRA	interferon-gamma release assay
IP	implementing partner
JMM	joint monitoring mission
JPR	joint program review
KP	key population
LTFU	lost to follow-up
M&E	monitoring and evaluation
MAF	multisectoral accountability framework
MDR-TB	multidrug-resistant tuberculosis
MOH	ministry of health
NEML	national essential medicines list
NGO	nongovernmental organization
NSP	national strategic plan
NTP	national TB program
PBMEF	Performance-Based Monitoring and Evaluation Framework
PLHIV	people living with HIV
PPRs	performance plans and reports
PSCM	procurement and supply chain management
RR	rifampicin resistance
SLD	second-line drug
TB	tuberculosis
TB DIAH	TB Data, Impact Assessment and Communications Hub
TBI	TB infection
TST	tuberculin skin test
TPT	tuberculosis preventive treatment

UNGA HLM	United Nations General Assembly High-Level Meeting
USAID	United States Agency for International Development
WHO	World Health Organization
WRD	WHO-recommended rapid diagnostic
XDR-TB	extensively drug-resistant tuberculosis

Introduction

For more than 20 years, the United States Agency for International Development (USAID) has been a global leader in the fight against tuberculosis (TB). USAID leads the U.S. Government's global TB efforts by working with agencies and partners around the world to reach every person with the disease, cure those in need of treatment, and prevent the spread of new infections and the progression to active TB disease. USAID supports TB efforts in more than 50 countries,[1] and has helped provide TB treatment to more than 12 million people, including more than 330,000 suffering from drug-resistant TB (DR-TB).[2]

Purpose of This Guide

The Performance-Based Monitoring and Evaluation Framework (PBMEF) is a key component of USAID's efforts to ensure effective accountability of investments in TB at global, regional, and country levels to accelerate progress to end the TB epidemic. The framework streamlines and prioritizes indicators for monitoring progress toward reaching global TB milestones and targets in USAID TB priority countries. The framework is fully aligned with existing strategies, such as the U.S. Government's Global TB Strategy;[3] the National Action Plan for Combating Multidrug-Resistant Tuberculosis (National Action Plan);[4] the Stop TB Partnership's Global Plan to End TB;[5] the World Health Organization's (WHO) End TB Strategy;[6] and the United Nations General Assembly High-Level Meeting (UNGA HLM) on TB's *Political Declaration on TB.*[7] Ultimately, implementation of the framework by country programs, ministries of health (MOHs), donors, and other partners will help with the standardization, analysis, and use of information to inform existing or new TB strategies and interventions, strengthen national monitoring and evaluation (M&E) systems and capacity, ensure efficient use of resources, and promote investments-for-results approaches. One can also use the framework as a tool to advocate for resources, strengthen policies, and expand the scope of collaboration and coordination among partners. Complementing the framework is an online TB Data Hub and communication repository (www.tbdiah.org) that harnesses TB data and expands sharing of TB information at global and national levels.

This guide provides an overview of USAID's strategic M&E framework to achieve global targets, describes standard core and extended indicators to monitor progress toward reaching TB targets in USAID-supported countries, and encourages consistent use of indicators to monitor and evaluate

[1] USAID supports bilateral programming in 23 TB priority countries and provides technical assistance to an additional 32 countries.
[2] Retrieved from https://www.usaid.gov/sites/default/files/documents/1864/2020_Report_to_Congress_01-WEB-READY-FINAL.pdf
[3] United States Agency for International Development (USAID). (n.d.). US Government Global TB Strategy 2015-2019. Retrieved from https://www.usaid.gov/sites/default/files/documents/1864/Reach-Cure-Prevent-2015-2019-TBStrategy.pdf
[4] United States Agency for International Development (USAID). (n.d.). Retrieved from https://www.usaid.gov/global-health/health-areas/tuberculosis/technical-areas/national-action-plan-combating-mdr
[5] Stop TB Partnership. (2015). The Paradigm Shift 2016-2020. Retrieved from http://www.stoptb.org/assets/documents/global/plan/GlobalPlanToEndTB_TheParadigmShift_2016-2020_StopTBPartnership.pdf
[6] World Health Organization (WHO). (2015). The End TB Strategy. Retrieved from https://www.who.int/tb/post2015_strategy/en/
[7] United Nations General Assembly. (2018). Political declaration of the high-level meeting of the General Assembly on the fight against tuberculosis. Retrieved from http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/3http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/3

USAID investments in TB programs. The main intent for this standardized approach is to strengthen the use of data for decision making by the national programs. USAID staff, national TB program (NTP) managers, M&E staff, and embedded TB advisors and implementing partners (IPs) are the main audience for this guidance document.

The guide covers the following:

- Provides an overview of USAID's Global Accelerator to End TB and TB targets
- Explains what the PBMEF is and how it can be used as a data management tool
- Introduces the performance-based core and extended indicators, along with comprehensive indicator reference sheets for the core indicators
- Describes how the indicator data will be reported
- Provides an overview on data quality
- Demonstrates how to view TB data collection through a cascade approach

Overview of the Global Accelerator to End Tuberculosis

In September 2018, at the first-ever UNGA HLM on TB, USAID launched its new TB business model, the **Global Accelerator to End TB**. By building local commitment and capacity, the Accelerator supports countries in reaching the global targets of diagnosing and enrolling 40 million people on TB treatment and enrolling 30 million on TB preventive therapy (TPT) by 2022. The Accelerator aims to reach these targets by deploying more focused technical expertise to increase TB and DR-TB diagnosis and treatment, especially to support MOHs; strengthening the involvement and response to TB of local organizations, including community and faith-based groups; accelerating the transition of sustainable funding and management of TB programs to governments and their partners; and improving coordination with other health programs. Since the launch of the Accelerator, USAID has shifted its business model to develop programs and strategies to achieve a more accountable and inclusive TB response by countries to meet the UNGA HLM commitments and targets.

In order to monitor implementation of the Accelerator and to ensure countries use data for decision making, the TB Data, Impact Assessment and Communications Hub (TB DIAH) project, in coordination with the USAID TB team, developed the PBMEF. This framework will help USAID TB staff monitor the results of TB interventions, assist with creating a standardized set of TB indicators, and support missions and NTPs to analyze, visualize, and use TB data for decision making. The PBMEF is a systematic framework of indicators based on data already collected by countries; its intent is not to promote more data collection but to facilitate a systematic approach to data analysis and use for programmatic decision-making.

Targets to End TB

Global targets and milestones for reductions in the burden of TB disease have been set as part of the United Nation's Sustainable Development Goals and the End TB Strategy. In addition, the UNGA HLM produced a historic political declaration, with specific, measurable milestones to achieve by

2022. By adopting this declaration, national leaders recognize TB as a challenge and commit to taking specific actions. These are the key milestones, or targets:[8]

- Commit to providing diagnosis and treatment with the aim of successfully treating 40 million people with TB from 2018 to 2022, including 3.5 million children, and 1.5 million people with DR-TB, including 115,000 children (#24 in declaration).
- Commit to preventing TB for those most at risk of falling ill, through the rapid scaling up of access to testing for TB infection, according to the domestic situation, and the provision of TB preventive treatment (TPT), with a focus on high-burden countries, so that at least 30 million people (including 4 million children under 5 years of age), as well as 20 million other household contacts of people affected by TB, and 6 million people living with HIV (PLHIV) receive TPT by 2022 (#25 in declaration).
- Commit to mobilize sufficient and sustainable financing for universal access to quality prevention, diagnosis, treatment, and care of TB, from all sources, with the aim of increasing overall global investments for ending TB and reaching at least USD$13 billion a year by 2022 (#46 in declaration).

Another key outcome of the UNGA HLM was the agreement by all UN Member States to establish a transparent review mechanism. Governance is a critical yet neglected component of a strong TB multisectoral response with the NTP at the center. It determines effective and efficient operationalization of the program, not just at the national level, but also at the peripheral level by individuals, the TB community, civil society, and governmental sub-national entities. Good governance promotes transparency, inclusiveness, a supportive legal framework, and ensures process efficiency and effectiveness. A systematic and holistic approach to improving multisectoral TB governance is required and should be monitored.

While each country's approach will be different, WHO developed a baseline checklist[9] to enable member states and their partners to assess the status of work at the national level to strengthen accountability to end TB—principally national commitments made, actions taken on those commitments, monitoring and reporting approaches, and the nature of any high-level review mechanisms.

Performance-Based Monitoring and Evaluation Framework

The PBMEF is a comprehensive indicator tool organized into 14 technical areas. In addition to helping USAID Missions successfully report on key TB data, the PBMEF will also help to ensure optimal demand, analysis, and use of routine and nonroutine TB data in order to help inform the decisions of USAID, national governments, MOHs, and NTPs on appropriate interventions, policies, and performance management. Additionally, the PBMEF will aid in USAID's efforts to ensure effective accountability of the U.S. Government's TB investments at global, regional, and

[8] United Nations General Assembly. (2018). Political declaration of the high-level meeting of the General Assembly on the fight against tuberculosis. Retrieved from http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/3http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/3

[9] World Health Organization. (2020). WHO Multisectoral Accountability Framework for TB (MAF-TB): Baseline Assessment Checklist for country use in pursuing a national MAF-TB1. Retrieved from https://www.who.int/tb/publications/WHO_MAFTB_Checklist_Form-Final.pdf

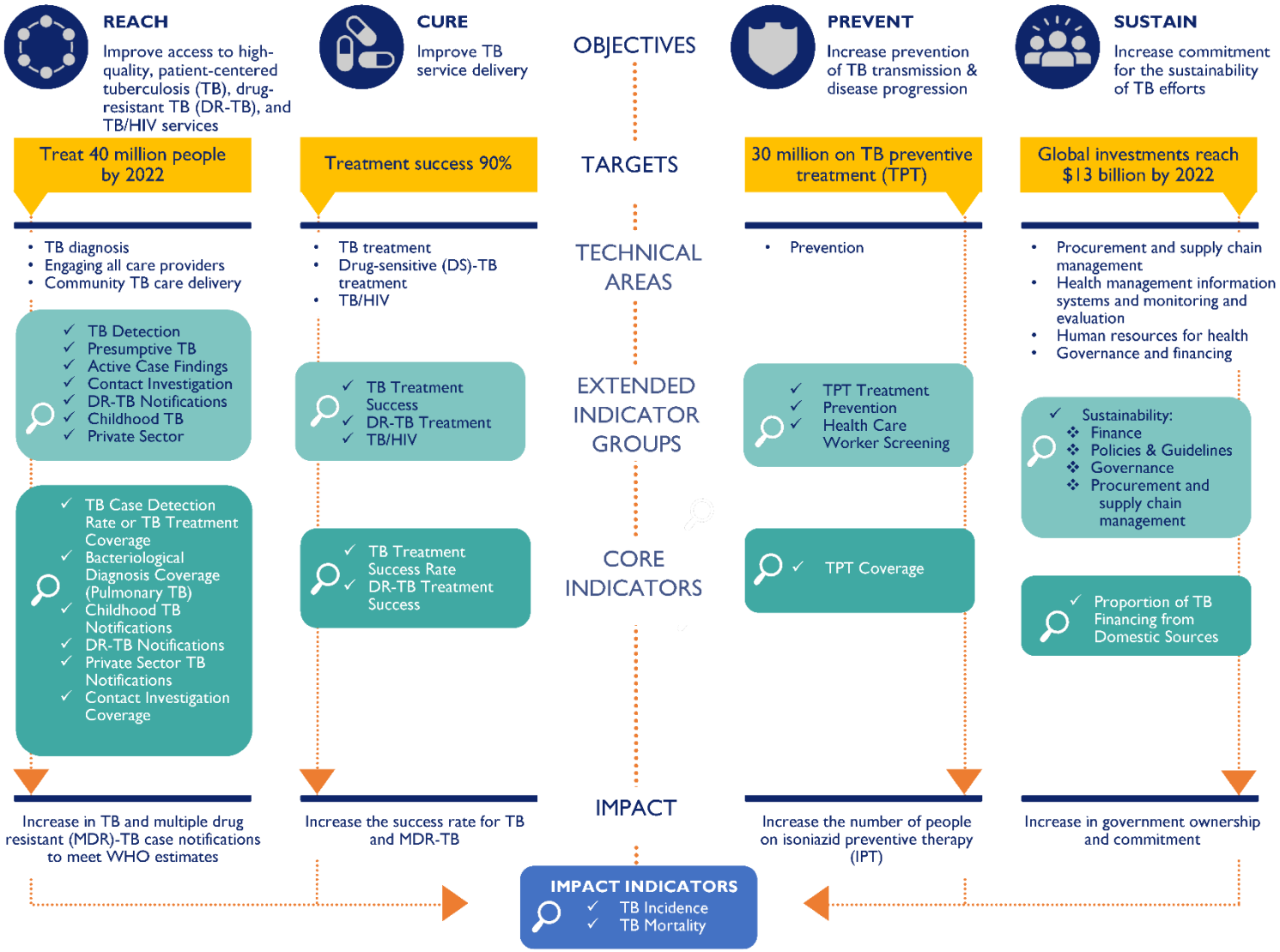
country levels. The PBMEF helps policymakers, program managers, and stakeholders address some critical questions of whether programmatic gaps are being bridged and performance goals are achieved.

As the lead U.S. Government agency for global efforts to control TB, USAID's TB support is guided by the following objectives that are aligned with the U.S. Government's Global TB Strategy:

1. Improve access to high-quality, patient-centered services for TB, DR-TB, and TB-HIV to address challenges to access, such as cost of services, distance to facilities, hours of operation, and social stigma.
2. Increase prevention of TB transmission and progression of TB infection (TBI), through early diagnosis and effective treatment.
3. Strengthen key service delivery platforms, by helping countries identify populations at high risk of TB and improve healthcare settings, including strengthening drug policy and management.
4. Increase country commitment and capacity to plan, finance, and implement effective TB solutions.

These four objectives have well-defined outcomes and impacts that, if implemented effectively, will lead to achievement of the global targets, as shown in the following PBMEF (see Figure 1). This framework shows the logical progression from the implementation of strategic objectives and technical interventions to improved outcomes (both health and system) that collectively achieve the desired impacts to reach country and global targets. These objectives and impacts will be measured along a continuum that includes inputs, processes, outputs, outcomes, and impact indicators. The indicators used to measure this progress are described in more detail in this guidance document. Input, process, and output indicators will be determined for each country, based on their national strategic plans (NSPs) as they adapt this framework to their local context.

Figure 1. TB DIAH Global Performance-Based Monitoring and Evaluation Framework (PBMEF)



Performance-Based Indicators

An indicator is a specific measure of performance that an M&E system routinely tracks over time.[10] Indicators reflect the intended goals and objectives of a program, allowing managers to measure distinct progress toward benchmarks and targets and identify where gaps in improvement exist. This guide presents the comprehensive indicators, organized into 14 technical areas. Ten of these indicators are categorized as *core indicators* which provide a snapshot of a country's progress to eliminating TB; Missions are required to include these core indicators in their annual TB Roadmaps (Operational Plans) and Performance Plans and Reports (PPRs). The additional indicators are categorized as *extended indicators* that are built to establish plausible pathways to the core indicators and provide more detail on aspects of the performance of TB programs across specific technical areas.

Core Indicators

Core indicators are critical to understanding the progress made toward TB control in terms of both national targets outlined in NSPs and international targets such as those set at the UNGA HLM. The **core indicators provide standard comparisons across USAID's TB priority countries and are to be included in their TB Roadmaps and PPRs**. Ten high-level core indicators were selected that best reflect the investments of USAID and the global TB community and are generally readily available through NTPs' existing M&E systems or the WHO global database. In cases where data are not available at the national level, some additional efforts may be needed to gather data at the subnational level or from implementing partners. Table 1 lists core indicators by the strategic objective they measure and the technical area of the roadmap they support.

Standardized data collection and analysis for each of the core indicators are provided in the indicator reference sheets in Appendix 1. The indicator reference sheets define each indicator, state the indicator's purpose, and help the data collector understand the specific requirements to collect, calculate, interpret, and visually display each indicator.

The TB DIAH Data Hub is one tool available for reporting, analyzing, and using data from these core indicators. See the section below titled "Data Hub Data Entry, Visualization, and Reporting" for more details on reporting core indicators through the data hub.

Extended Indicators

The extended indicators provide additional data to monitor progress toward the 10 core indicators. Most of the extended indicators presented here are well-established, while others are new and to complete specific cascades of prevention and care and across technical areas. These more granular data set plausible pathways to anticipated outcomes and are useful for explaining why a country may or may not be achieving its targets, what course corrections may be needed by technical area, and which gaps in programming may require additional resources. The indicators in these groups can also be used to construct treatment cascades and patient pathways that are critical to understanding where there are gaps and where efforts need to be strengthened. Examples of cascades

[10] Retrieved from https://www.globalhealthlearning.org/course/m-e-fundamentals.

are provided in Appendix 2. Although the extended indicators are not required, they provide standardized options and can serve as a comprehensive compendium for USAID and its IPs to include in M&E plans to bolster justification for programming and funding for specific technical areas of the TB Roadmap. There are 14 extended indicator groups, each with a number of standard indicators. Table 1 details how the extended indicators support the core indicators. These indicators are defined in more detail in Table 3 of the Indicator Matrix, in Appendix 3.

Table 1. Summary of indicators by TB Roadmap technical areas

TB Roadmap technical areas (4)	Core indicators (10)	Extended indicator groups* (14)
REACH		
TB diagnosis (diagnostic network technical assistance and operations)	TB Detection Rate[1] Bacteriological Diagnosis Coverage (Pulmonary TB)	TB Detection • Notification/detection (including TB/HIV and childhood TB) • Screening • Laboratory diagnostics • Specimen turnaround time
	Childhood TB Notifications	Childhood TB • Diagnosis • National policy
	DR-TB Notifications	DR-TB Notifications (including DR-TB/HIV)
	Contact Investigation (CI) Coverage	Contact Investigation
		Presumptive TB
Engaging all care providers (facility-based case finding, including the public-private mix)	Private Sector TB Notifications	Private Sector
Community TB care delivery (case finding outside health facilities)		Active Case Finding
CURE		
TB treatment	TB Treatment Success Rate	TB Treatment Success (including TB/HIV, childhood TB, private sector)
TB/HIV		TB/HIV • Screening and testing (PLHIV for TB) • Testing TB patients for HIV and antiretroviral therapy (ART) • PLHIV-TPT • Treatment
DR-TB[2] treatment	DR-TB Treatment Success Rate	DR-TB Treatment (including DR-TB/HIV and childhood DR-TB)
PREVENT		
Prevention	TPT Coverage	TPT (including TB/HIV, adult contacts and children) Prevention Healthcare Worker Screening (including TB/HIV)

SUSTAIN		
Sustainability	TB Financing Expected from Domestic Sources	Sustainability • Finance • Policies and guidelines • Governance • Procurement and supply management

[1] Also referred to as 'TB Treatment Coverage'.

[2] DR-TB refers to DR/MDR-TB and XDR-TB.

* Each indicator group includes four to 25 or more indicators that provide additional data to monitor progress toward the core indicators, including important data to create treatment cascades and patient pathways.

Data Sources

Data for indicators come from different sources, primarily from NTP M&E and surveillance systems, national health management information systems, and IPs or program records at subnational and facility levels. (In some countries, data are available through limited project and operational research studies.) The indicator reference sheets in Appendix 1 identify data sources for each core indicator. WHO also manages a global TB database[11] drawing from NTPs that can be a source of aggregate national-level data.

TB Reporting and Recording Forms

The primary data sources, in most countries, are the NTP's TB reporting and recording forms. WHO provides guidance and examples of forms to ensure some standardization across countries. These forms are then adapted by NTPs to their specific contexts. The most recent examples of WHO forms[12] can be found at: https://www.who.int/tb/publications/definitions/en/ and https://www.who.int/tb/publications/tb_r_and_r_forms_2006/en/.

WHO TB Database and Reporting Portal

A number of indicators listed in the framework are standard indicators collected by the NTP and reported to the WHO on an annual basis through its global TB data collection system. Each country completes a standard global TB data collection form for the previous calendar year (or as indicated) by entering data into the portal. Once the data has been verified, it is housed in WHO's TB database and is accessible to the public. Where relevant, we have listed the corresponding WHO database variable code in the indicator reference sheets and the extended indicator tables. See below for links to these resources.

WHO TB database and data dictionary: https://www.who.int/tb/country/data/download/en/

Reporting Period

The reporting period for the indicators may vary by country and IP. When contextualizing indicators, the reporting period can be more clearly defined as appropriate to the program and country setting. Indicators should be reported on an annual basis at a minimum, or for some indicators on a semiannual basis, to address Global Fund (GF) Progress Update and Disbursement

[11] See https://www.who.int/tb/country/data/download/en/

[12] WHO updates technical definitions whenever needed, therefore PBMEF will be updated periodically in the future to reflect the most recent technical definitions.

Requests or USAID Accelerator review calls. As electronic systems become more the norm, quarterly or monthly reporting is also encouraged.

Data Hub Data Entry, Visualization, and Reporting

The TB DIAH Data Hub has two main purposes. The first is to provide data visualizations for the publicly available WHO TB data and the other is to serve as a login-only portal for Missions, IPs, and, based on country engagement and agreement, for country NTPs as well, to enter, report, and visualize PBMEF data. For example, a critical element of a country's annual TB Roadmap is progress on TB coverage and impact. The 10 core indicators presented in this framework are required by all USAID TB priority countries during annual TB Roadmap submission. Missions can now use the hub to enter and submit the required data for their annual TB Roadmaps.

The hub is designed to facilitate data use as well as provide a way to capture, analyze, and visualize historical and current data. The hub contains all available data for the core indicators from previous years extracted from the WHO database. Moving 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 will be readily available to the 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.

The hub will have country-specific accounts that designated staff from the country Missions, IPs, and NTPs can access to enter, store, edit, visualize, and report their PBMEF data. They can also use the hub to set performance targets, such as the NSP targets. Data entered using these accounts will be accessible only to the country designated staff and USAID/Washington focal persons. Data will not be entered into the hub without an explicit country agreement and clearance. Confidentiality of the data will be ensured through implementation of security protocols and standards of practice. Data entered and stored in the hub will be used by the Missions, IPs, and NTPs for performance review, planning, and TB program M&E. Users' guides and a virtual help desk will be in place in the hub to help detail the steps for data entry, editing, storage, and use.

Data Quality

It is assumed and widely believed that the success of TB control efforts is linked to better decisions, which in turn, require availability of good quality data. **Achieving better decisions with good quality data begins with defining and assessing the quality of data.** Rather than fixing data quality by finding and correcting errors, it is more helpful for TB control programs to focus on collecting quality data the first time. This will help to ensure data quality throughout the data collection and transmission process.

For long-term data quality assurance, global technical partners have devoted much effort to standardizing and improving data quality assurance methods and tools (e.g., the Data Quality Review Toolkit, from WHO and MEASURE Evaluation).[13]

All of USAID's priority countries should have a data quality strategy in place. The strategy should have the following elements:

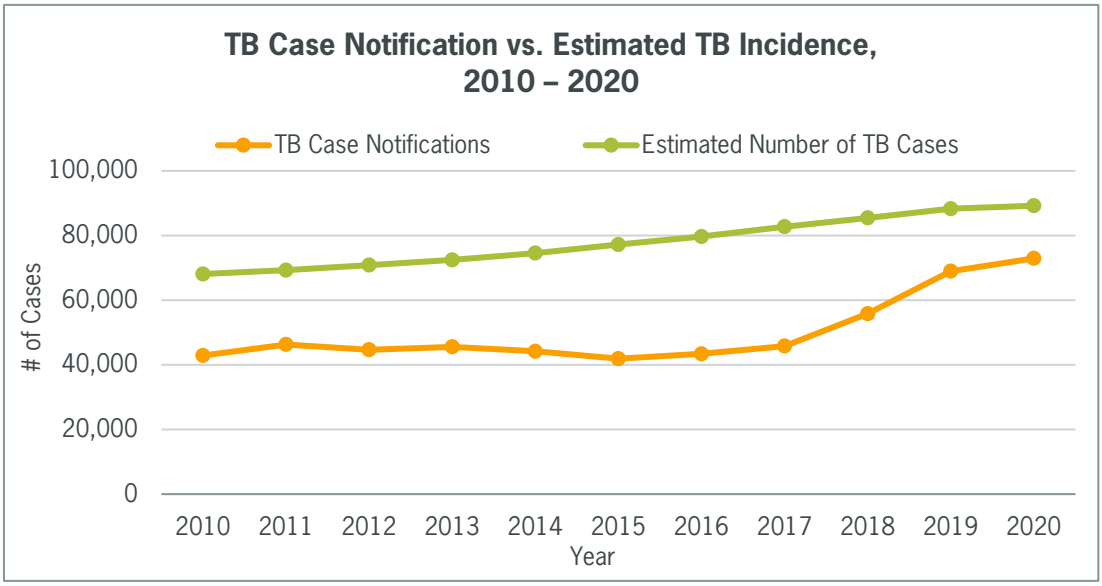
1. Define key elements of data quality throughout the data chain, starting from acquisition and reporting.
2. Multi-stakeholder technical working groups to manage, oversee, and coordinate data quality activities in the country.
3. Standard operating procedures for routine data quality reviews, including TB-specific data quality checklists for use during supervision of TB treatment sites.
4. Implementation of routine data quality assessments.
5. Data review meetings, to identify data quality problems (e.g., gaps, outliers, inconsistencies, etc.) and make necessary corrections.

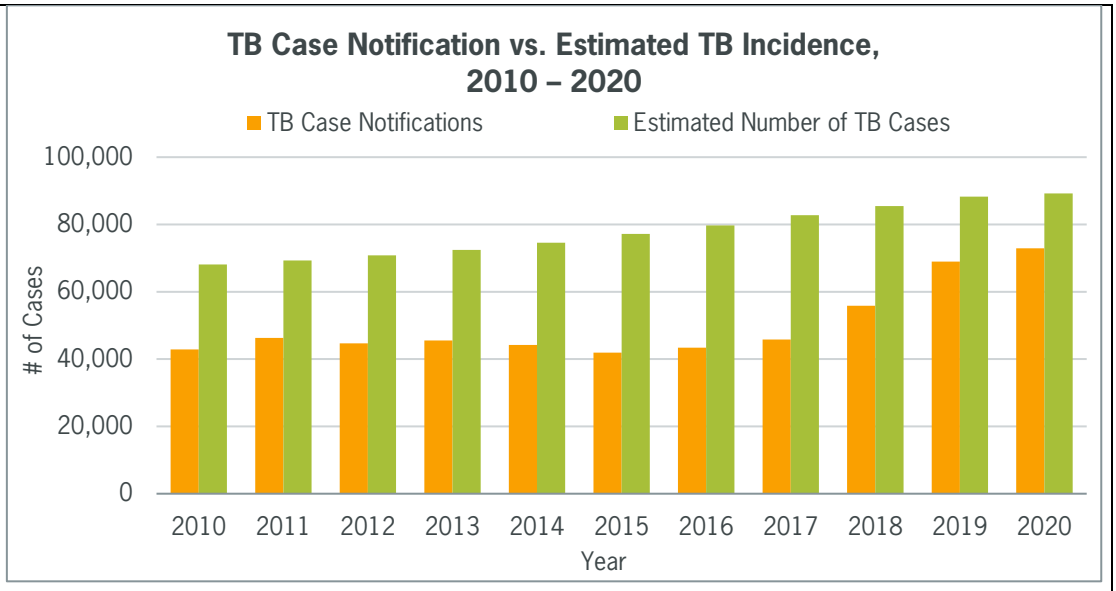
[13] World Health Organization. (2017). Data quality review: Module 1: framework and metrics. Retrieved from https://apps.who.int/iris/handle/10665/259224

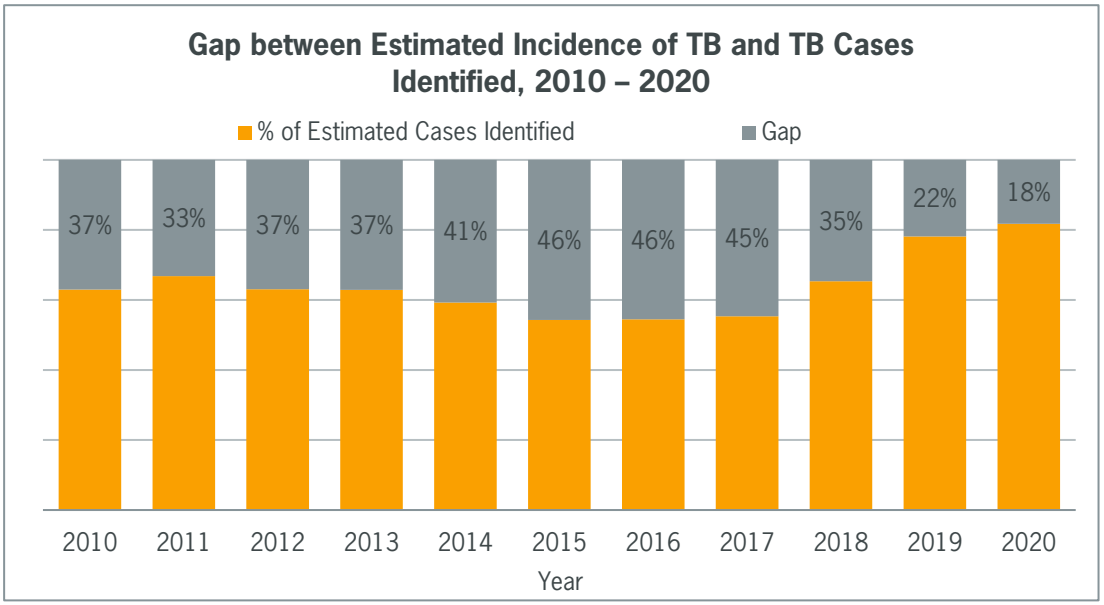
Appendix 1. Indicator Reference Sheets for Core Indicators

Indicator name and number	TB Case Detection Rate or TB Treatment Coverage
Definition	Percentage of new and relapse tuberculosis (TB) cases and cases with unknown previous TB treatment history (all forms)—that were notified in a reporting year out of the estimated number of TB cases for that year. Calculation: (Numerator/Denominator) x 100
Numerator	Number of new and relapse TB cases (and cases with unknown previous TB treatment history), all forms (bacteriologically confirmed plus clinically diagnosed, pulmonary and extrapulmonary), that were notified in the reporting period
Denominator	Number of estimated incident TB cases (all forms) in the same reporting period
Category	REACH
Type	Core outcome
Unit of measure	Percent of cases
Data type	Percentage
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	The numerator is reported from national TB program official (NTP) records. *Quarterly report on TB case registration in the basic management unit.* ***This indicator is related to incident TB cases; therefore, the following category of patients should not be included in the data reported:*** ***1) Treatment after failure patients (previously been treated for TB and whose treatment failed at the end of their most recent course of treatment)*** ***2) Treatment after loss to follow-up patients (previously been treated for TB and were declared lost to follow-up at the end of their most recent course of treatment)*** ***3) Other previously treated patients*** The denominator is available from the current World Health Organization (WHO) Global TB Report for the 30 TB high-burden countries and electronic report of country profile for all countries published on the WHO website. It is an estimation calculated annually based on a mathematical model. This is a standard WHO indicator. Referring to the WHO database, the variable for the numerator is *c_newinc* and the variable for the denominator is *e_inc_num*.
Importance	Case-finding is a fundamental principle of effective TB prevention and care. However, one-third of the people who are estimated to fall ill with TB each year are not reached with proper screening, detection, and treatment, or are under-reported. The inability to find and treat the "missing" cases hampers efforts to make further progress in TB care. This indicator measures country-level progress in finding and diagnosing people with TB. Globally, TB detection (i.e., treatment coverage) was 71% in 2019, up from 64% in 2017 and 53% in 2010. Despite increases in TB notifications, there is still a large gap between the estimated number of incident cases and the number of new cases reported due to a combination of under-reporting of detected cases and under diagnosis. Country national strategic plans for TB set annual targets for the number of TB notifications. This target will vary by country, but each country should be trying to achieve the End TB Strategy and United Nations High Level Meeting target of 90% or more case detection by 2025 to close the gap between estimated

	and actual notifications. A high detection rate means more TB patients will be put on treatment and cured, thereby breaking the transmission by undiagnosed infectious TB patients, leading to less TB disease and death in the population. TB case detection is also used as a planning tool for the NTP. For example, the projections of cases that the NTP plans to detect will help in procuring sufficient TB supplies and ensure that diagnostic services are available to detect more patients.

Data use and visualization	*Reaching all individuals with TB is an important goal for national and global policymakers. The numerator, TB case notification, can be analyzed as a trend over time on its own. However, it is more powerful when compared to the estimated TB incidence to determine the magnitude of the gap between the number of TB cases expected and the TB cases detected.* *Trends in TB case detection can be used to monitor progress toward achieving national targets to eliminate TB, assess impact of interventions (e.g., rollout of GeneXpert or active case finding activities), and identify inadequate recording and reporting.* *Marked changes in the trend should be reviewed in conjunction with any specific events that may have occurred (e.g., increase/decrease in active case finding, establishment of new diagnostic facilities, expanding TB services through private sector or natural disasters that disrupt TB services) and the impact of other disease outbreaks, like COVID-19.* *This indicator, in conjunction with other indicators, especially bacteriologically confirmed cases and treatment success rate, will provide a picture of the cascade of TB care in the country which will help to understand to what extent the TB program is 'losing' TB cases along the care pathway. See Appendix 2 for an example of how this indicator is used in the TB pathway and cascade of care. This indicator is limited to the national level only because the denominator is a national-level estimate.* *Below are examples (for illustrative purposes only) one can use when presenting this indicator. These charts provide important information but will provide more insight if viewed along with additional contextual information, including age, sex, and key program activities.* 


TB Case Notification vs. Estimated TB Incidence, 2010 – 2020
TB Case Notifications
Estimated Number of TB Cases
100,000
80,000
60,000
40,000
20,000
0
# of Cases
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

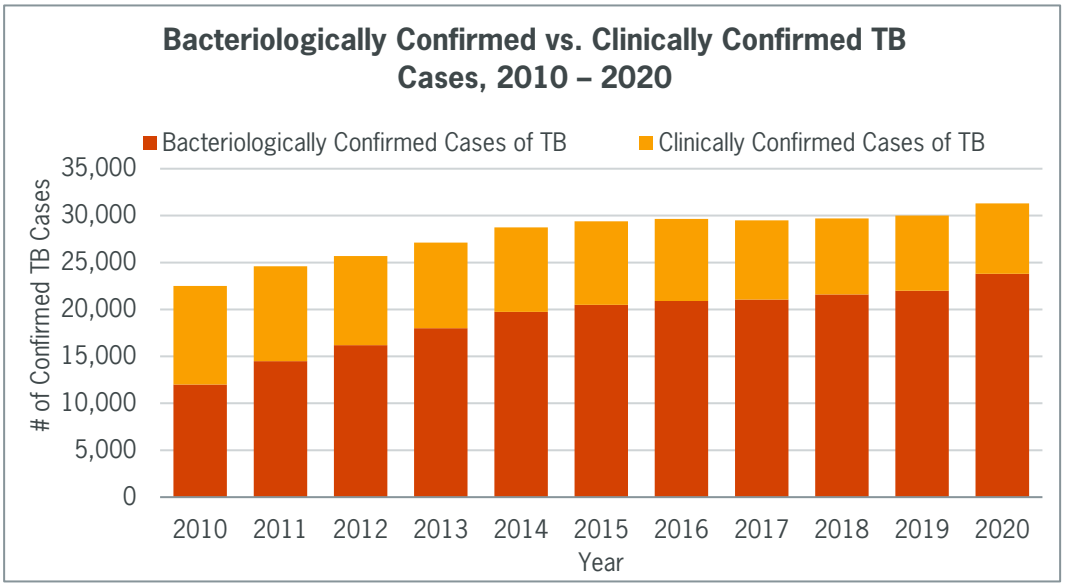

Gap between Estimated Incidence of TB and TB Cases Identified, 2010 – 2020
% of Estimated Cases Identified
Gap
37%
33%
37%
37%
41%
46%
46%
45%
35%
22%
18%
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

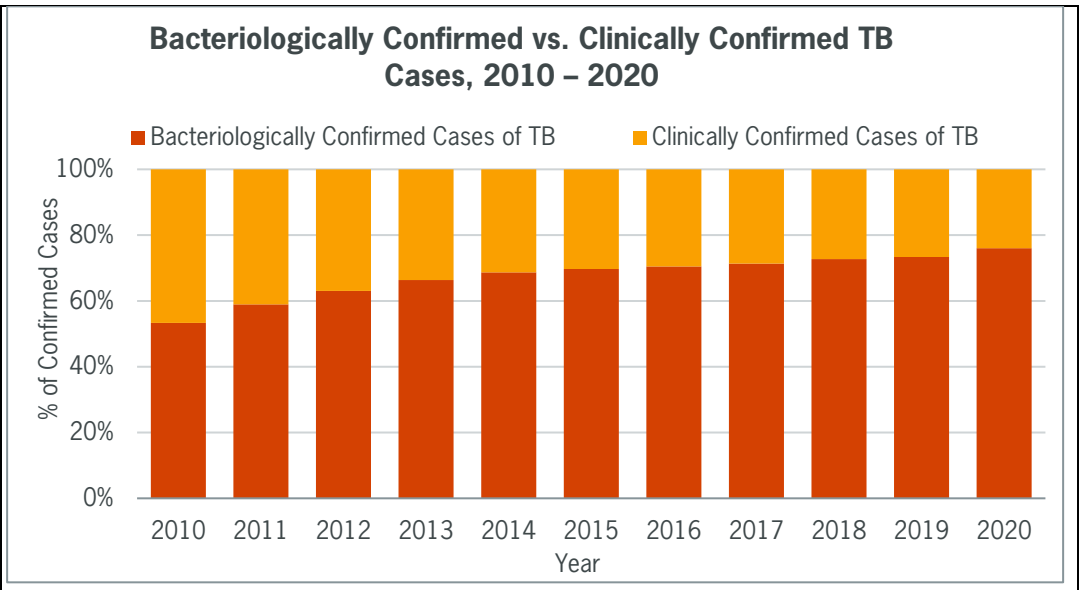
Indicator name and number	Bacteriological Diagnosis Coverage (Pulmonary TB)
Definition	Percent of new and relapse bacteriologically confirmed pulmonary tuberculosis (TB) cases (smear positive or culture positive or positive by World Health Organization [WHO]-recommended rapid diagnostics test, such as Xpert MTB/RIF) among notified new and relapse pulmonary TB cases during the reporting period. Calculation: (Numerator/Denominator) x 100
Numerator	Number of new and relapse bacteriologically confirmed pulmonary TB cases (smear positive or culture positive or positive by WHO-recommended rapid diagnostics test) during the reporting period
Denominator	Number of notified new and relapse pulmonary TB cases (bacteriologically confirmed plus clinically diagnosed) during the reporting period
Category	REACH
Type	Core outcome
Unit of measure	Percent of cases
Data type	Percentage
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	Both the numerator and denominator are reported from national TB program (NTP) official records. *Quarterly report on TB case registration in the basic management unit.* This standard WHO indicator can also be calculated using data from the WHO TB database. The variables for the numerator are: *new_labconf* plus *ret_rel_labconf*. The variables for the denominator are: *new_clindx* plus *ret_rel_clindx* plus *new_labconf* plus *ret_rel_labconf*.
Importance	As countries intensify efforts to improve TB diagnosis and treatment and close incidence—notification gaps—the proportion of notified cases that are bacteriologically confirmed needs to be monitored to ensure that people are correctly diagnosed and started on the most effective treatment regimen as early as possible. This indicator measures a program's capacity to detect TB accurately and rapidly using new diagnostics and to increase the percentage of cases confirmed bacteriologically by scaling up the use of recommended diagnostics that are more sensitive than smear microscopy. Globally, in 2019, 57% of pulmonary cases were bacteriologically confirmed, a slight increase from 55% in 2018 and 56% in 2017. The End TB Strategy has set a target of 90% of new cases and 95% of relapse cases for bacteriological diagnosis coverage by 2025. Greater efforts are needed to improve the availability and use of the most sensitive diagnostic tests for TB and to ensure that international standards for TB care are met to avoid missed diagnoses of people who have TB, overtreatment of people who do not have TB, and efficient use of resources.
Data use and visualization	A high bacteriological diagnosis coverage reflects multiple processes, including availability and access to adequate bacteriological diagnostic services (trained staff, equipment, etc.), quality of laboratory testing, and adherence to TB guidelines. Bacteriological diagnosis coverage shows the number of new and relapsed bacteriologically confirmed pulmonary TB cases compared to the total number of new and relapsed notified pulmonary TB cases. This analysis sheds light on what proportion of pulmonary TB cases are laboratory confirmed compared to clinically confirmed. As the use of GeneXpert is expanded to test all new pulmonary cases, one should see an increase in bacteriological confirmation of these cases over

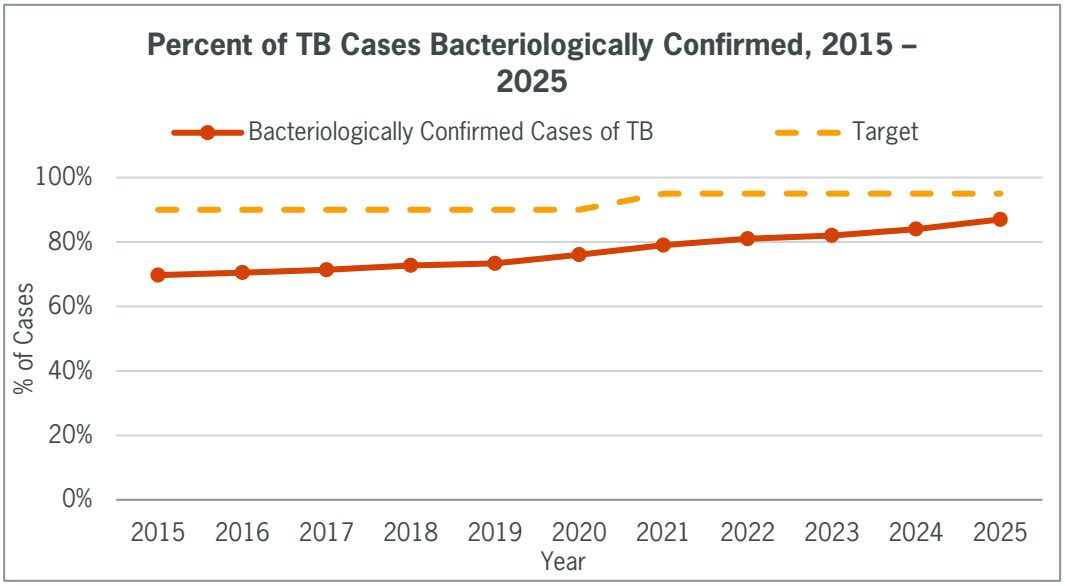
time. By measuring bacteriological confirmation in new and previously treated cases, countries can track the rollout and use of GeneXpert and other molecular WHO-recommended rapid diagnostic (WRD). Additionally, the proportion of bacteriologically confirmed cases can be compared against national and global standards or targets as a proxy for measuring laboratory performance or capacity within a country. This is also an important indicator of drug susceptibility testing (DST) coverage and drug-resistant TB (DR-TB) detection, as both require bacteriological testing to have documented results for resistance to at least rifampicin. See Appendix 2 for examples of this indicator in DS and DR-TB treatment pathways and cascades.

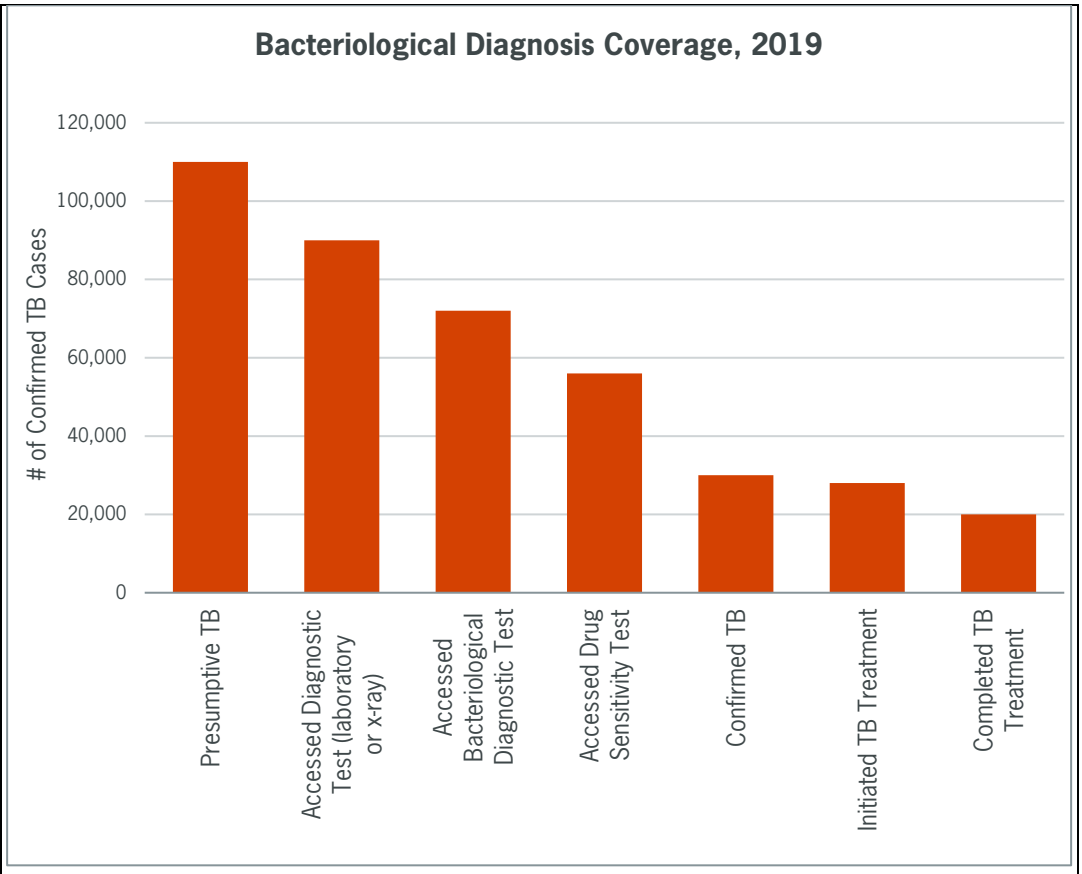
As mentioned above, the expectation is not to have 100% bacteriological confirmation; there will continue to be instances of clinically diagnosed patients. However, if the proportion falls below 50% in a given setting, a review of the diagnostic tests being used and the validity of clinical diagnoses would be warranted (e.g., via a clinical audit). Low reported bacteriological diagnosis coverage may be due to several contributing factors, including over-reliance on clinical diagnosis by the healthcare providers, insufficient effort to request patients to submit specimens for testing, the laboratory not receiving or processing the specimen, or results not being returned to the clinic or recorded in clinical files. Improved supervision and training, as well as improved supply chain, can help address these issues and improve the accuracy and reliability of this indicator.

Below are illustrative examples one can use when presenting this indicator.




Bacteriologically Confirmed vs. Clinically Confirmed TB Cases, 2010 – 2020
Bacteriologically Confirmed Cases of TB
Clinically Confirmed Cases of TB
100%
80%
60%
40%
20%
0%
% of Confirmed Cases
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

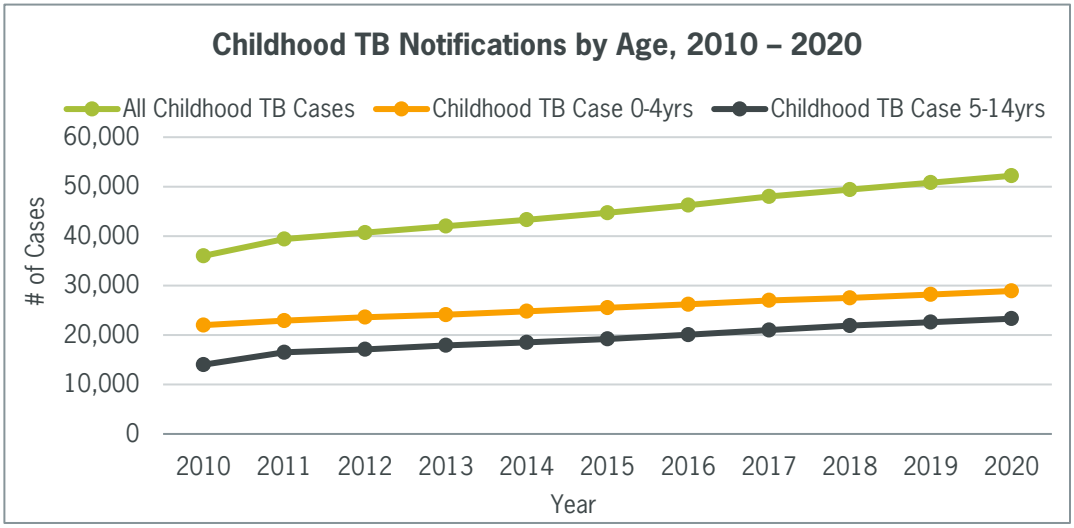

Percent of TB Cases Bacteriologically Confirmed, 2015 – 2025
Bacteriologically Confirmed Cases of TB
Target
100%
80%
60%
40%
20%
0%
% of Cases
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Year

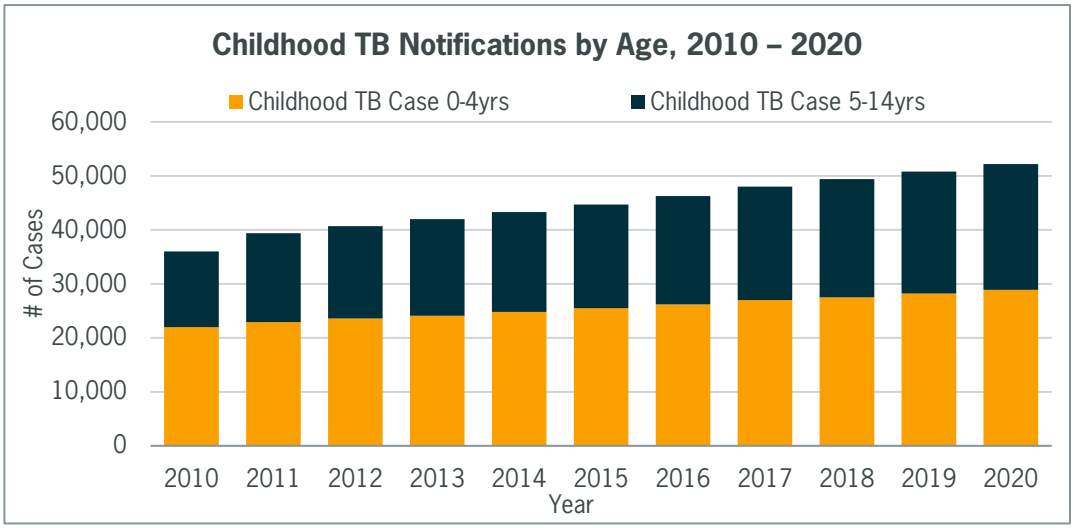

Bacteriological Diagnosis Coverage, 2019
# of Confirmed TB Cases
120,000
100,000
80,000
60,000
40,000
20,000
0
Presumptive TB
Accessed Diagnostic Test (laboratory or x-ray)
Accessed Bacteriological Diagnostic Test
Accessed Drug Sensitivity Test
Confirmed TB
Initiated TB Treatment
Completed TB Treatment

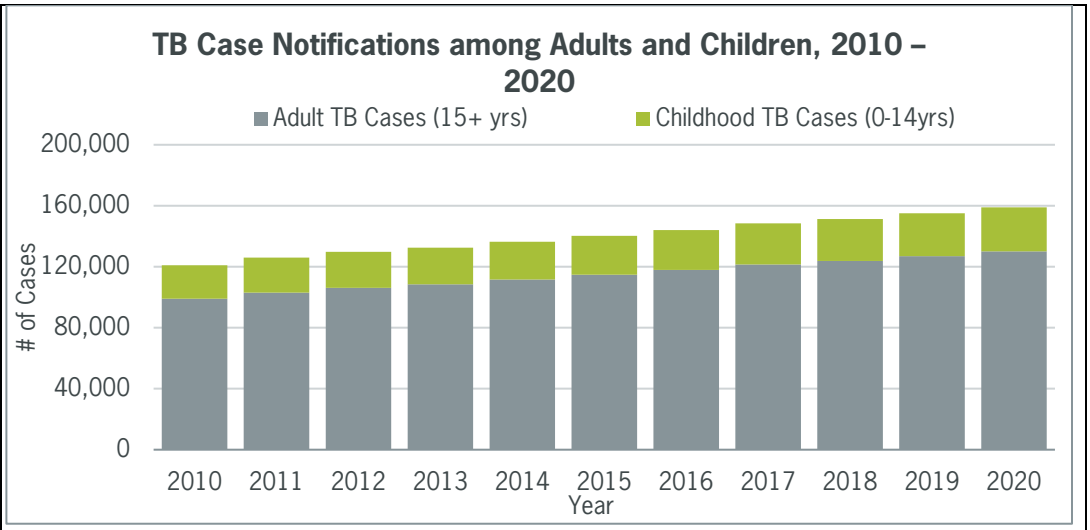
Indicator name and number	Childhood TB Notifications
Definition	Number of new and relapse childhood tuberculosis (TB) cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, that were notified in a reporting period.
Numerator	Number of new and relapse childhood TB cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, that were notified in reporting period
Denominator	N/A
Category	REACH
Type	Core outcome
Unit of measure	Number of cases
Data type	Integer
Potential disaggregation	Age, gender, subnational, HIV status (positive, negative, not documented), type (bacteriologically confirmed and clinically diagnosed)
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported from national TB program (NTP) official records. *Quarterly report on TB case registration in the basic management unit.* This standard WHO indicator can also be calculated using the WHO database variables: *newrel_f014* plus *newrel_m014* plus *newrel_sexunk014.*
Importance	The number of TB cases in children is an important indicator of recent transmission in a community. Comprehensive information about childhood TB cases enables NTPs to address the needs of children with TB and mobilize appropriate resources. This indicator measures TB notifications in children ages 0-14 years to understand the risks for infection and disease that are critical for improved diagnosis and prevention. On average, among new TB cases the percentage of children is between 5%-15% in low- and middle-income countries and <10% in high-income countries. Of the global total TB cases in 2018, 8% were children ages 15 years or younger. Overall, in 2017, 55% of estimated children with TB (0-14 years) were not reported to NTPs. Improvements in reaching children and adolescents are needed to reach the United Nations High Level Meeting targets to provide TB diagnosis and treatment with the aim of successfully treating 3.5 million children with TB, and 115,000 children with drug-resistant TB by 2022. Mandatory notification policies calling for collaboration between NTPs, other non-NTP public health facilities, and private sector facilities and pediatric associations will help ensure comprehensive and age-disaggregated reporting of TB cases. This is important for monitoring progress and focusing interventions and resources for children.
Data use and visualization	Childhood TB notifications can be analyzed as a trend over time to show the total number of TB cases in children detected within a given country. The number of childhood TB notifications can further be broken down by age categories to show the proportion of childhood TB cases occurring in children under five years of age and children between the ages of five and 14. Childhood TB notifications can be compared to the total number of TB notifications within a country to see what proportion of TB cases are from children. Globally, children represent on average about 10% of all TB cases. This could vary from country to country, but a too low or too high proportion of child TB cases would merit particular attention to the situation. A low proportion of childhood TB detection could point to the difficulty healthcare providers are having in diagnosing such cases or could also represent a lack of awareness about childhood TB among the care providers. Data can also be collected at the subnational level and used to learn from the geographic distribution of cases. Data should be reported annually at a minimum

but semiannually or quarterly reporting will improve the timeliness of data for decision making. See Appendix 2 for a more detailed pathway and cascade on childhood TB screening and treatment.

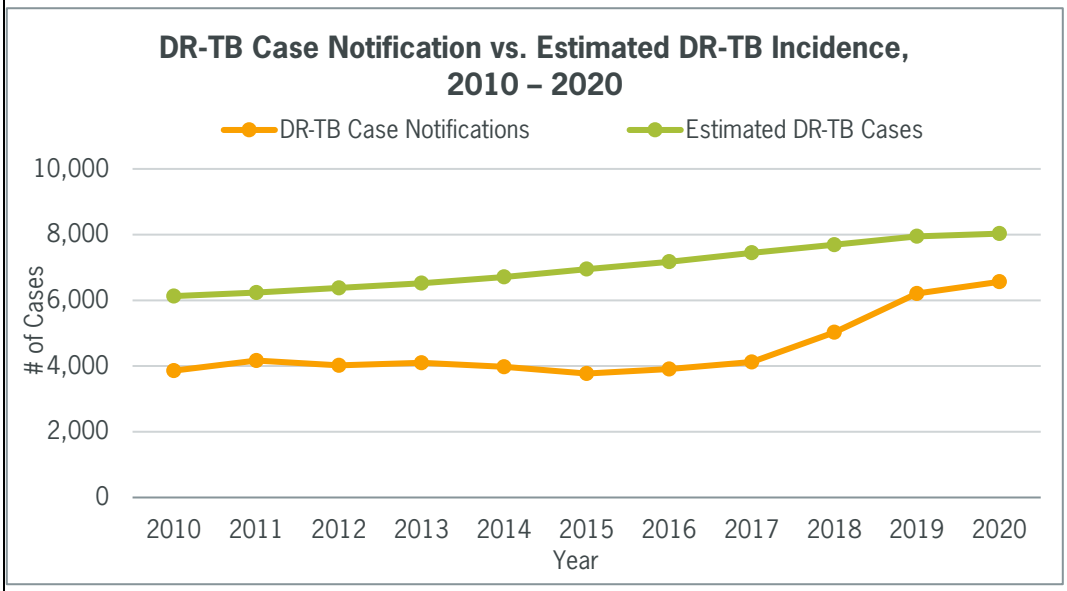
Below are examples one can use when presenting this indicator.

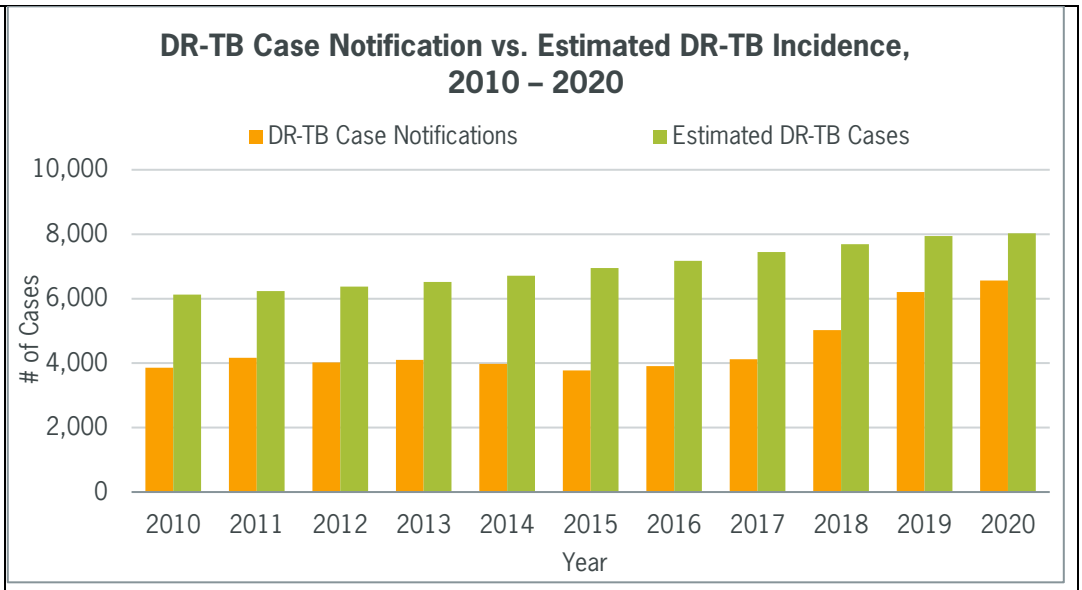






Indicator name and number	**Drug-Resistant TB Notifications**
Definition	Number of laboratory-confirmed drug-resistant tuberculosis (DR-TB) (which includes rifampicin resistant [RR]/multidrug-resistant [MDR] TB and extensively drug-resistant [XDR] TB) cases notified during the reporting year.
Numerator	Number of laboratory-confirmed DR-TB cases notified during the reporting year
Denominator	N/A
Category	REACH
Type	Core outcome
Unit of measure	Number of cases
Data type	Integer
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported from national TB program (NTP) official records. *Quarterly report on TB case registration in the basic management unit.* This standard WHO indicator can also be calculated using the WHO database variables: *conf_rrmdr* plus all_conf_*xdr*.
Importance	Understanding the magnitude of DR-TB cases is key for any NTP to respond accordingly. These cases account for a much higher proportion of overall TB deaths, and the number of DR-TB cases has been increasing over time. DR-TB notification measures a country's ability to detect drug resistance among the TB-infected population and enroll TB patients in appropriate treatment. Data on DR-TB notification are also valuable for planning drug logistics and supervision. The global number of MDR/RR-TB cases notified in 2019 was 44% of the estimated 465,000 MDR/RR-TB incident cases in 2019. Closing this large detection gap will require improvements in diagnostic capacity. Point-of-care (or near point-of-care) rapid diagnostic tools that detect TB and drug resistance are the new standard of care. Early detection of resistance to rifampicin and

	isoniazid ensures that an appropriate drug regimen can be prescribed from the outset to increase the likelihood of treatment success, and to reduce the chance of acquiring additional resistance.
Data use and visualization	Understanding DR-TB notification trends is important to gauge the overall performance of the NTP in preventing the emergence of DR cases, either due to faulty adherence to treatment regimens or due to direct transmission of DR-TB. Drug-resistant TB notification can be analyzed on its own as a trend over time to see the total number of notified DR-TB cases within a given country. It can also be compared to the estimated incidence of DR-TB to determine the magnitude of the gap between estimated DR-TB cases and the DR-TB cases that have been detected. These gaps should also be reviewed in the context of availability of diagnostic services for DR-TB. The number of diagnostic facilities per 100,000 population can also give some indication of how accessible these services are to the population. The geographical distribution of the diagnostic facilities can help to understand the level of accessibility in different regions. Regional comparisons of this indicator could be helpful. Additionally, it is useful to look at the proportion of DR-TB cases among the total number of notified TB cases to provide some insight into how the TB program is performing. DR-TB notification is an important step in the DR-TB treatment cascade. See Appendix 2 for additional steps in the cascade to monitor. Data can also be collected at the subnational level and used to learn from the geographic distribution of cases. Data should be reported annually at a minimum but semiannually or quarterly reporting will improve the timeliness of data for decision making. Below are examples one can use when presenting this indicator. 

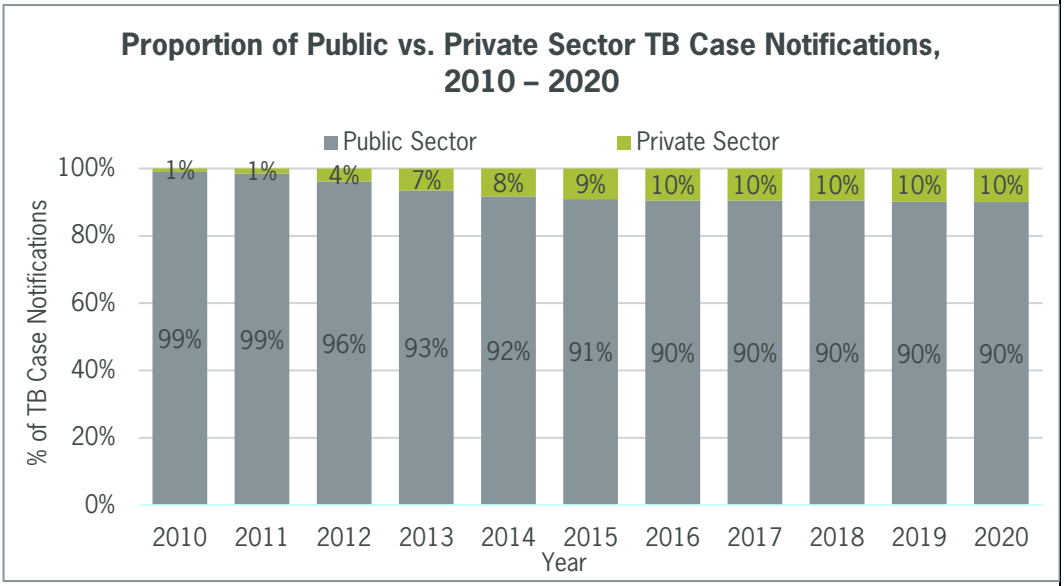

DR-TB Case Notification vs. Estimated DR-TB Incidence, 2010 – 2020
DR-TB Case Notifications
Estimated DR-TB Cases
10,000
8,000
6,000
4,000
2,000
0
# of Cases
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

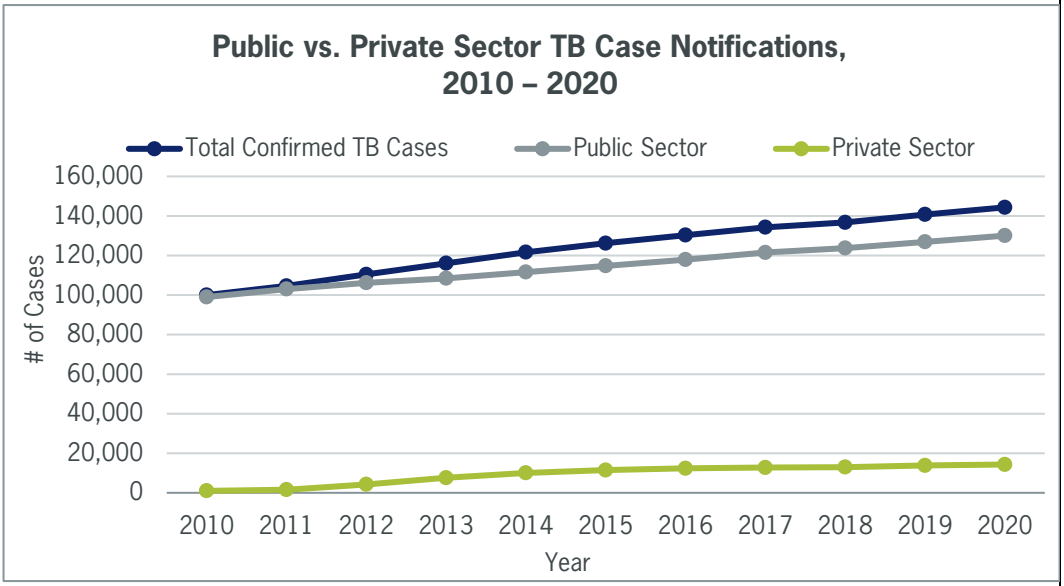
Indicator name and number	Private Sector TB Notifications
Definition	Number of new and relapse tuberculosis (TB) cases all forms (bacteriologically confirmed plus clinically diagnosed) notified by private non-national TB program (NTP) providers in a reporting year. Per the World Health Organization's (WHO) definition/database, private non-NTP providers include private individual and institutional providers, corporate/business sector providers, mission hospitals, and other clinics or hospitals managed by nongovernmental organizations and faith-based organizations.
Numerator	Number of new and relapse all forms of TB cases (bacteriologically confirmed plus clinically diagnosed) notified by private non-NTP providers in reporting year
Denominator	N/A
Category	REACH
Type	Core outcome
Unit of measure	Number of cases
Data type	Integer
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported from NTP official records. Some NTPs may include private sector notifications in their quarterly report on TB case registration, but this may vary country to country. This standard WHO indicator can also be calculated using the WHO database variable *priv_new_dx*.
Importance	Over one-third of people estimated to have developed TB in 2019 were not detected and notified by NTPs, and there are considerable delays in people reaching a provider who could reliably diagnose their TB. Both issues can be addressed in part by engaging with private providers, since ~50% of people with TB symptoms in sub-Saharan Africa and ~75% in Asia, first seek care from private providers. This indicator measures the number of TB patients notified by private providers—which is the starting point for ensuring that TB patients identified by private providers will receive quality diagnosis and care. Engaging with private sector healthcare providers is essential to achieve universal access to TB prevention and care services. Countries that have prioritized private sector engagement show increases in the contribution of the private sector to overall TB case notifications. Global and national goals in TB cannot be achieved unless private providers are engaged on a large scale. Contributions from private facilities and care providers to the total number of TB notifications should be regularly monitored. Introducing and using simplified case reporting for the private sector through electronic reporting or app-based reporting are some of the interventions to encourage private sector reporting, but intermediary agencies who can engage with diverse private providers are typically also necessary.
Data use and visualization	Private sector TB notifications can be analyzed over time and/or between subregions. They can also be compared to the total number of TB notifications to determine the proportion of all TB notifications that are coming from the private sector. A further analysis of this indicator using granular data can also provide valuable insights into who these private providers are in terms of their geographic and institutional locations, as well as their share in private sector notifications. It may be possible that the majority of all private sector notifications come from just a few regular private sector institutions. Better understanding of these high and low performers may help to expand the private sector notification base. For countries with large contributions from private providers, a richer set of standard indicators could be used to distinguish contributions from (a) private for-profit vs. private not-for-profit; (b) providers at different

levels of the healthcare system (pharmacies vs. primary care vs. secondary/tertiary care); and (c) private referrals vs. private case management.

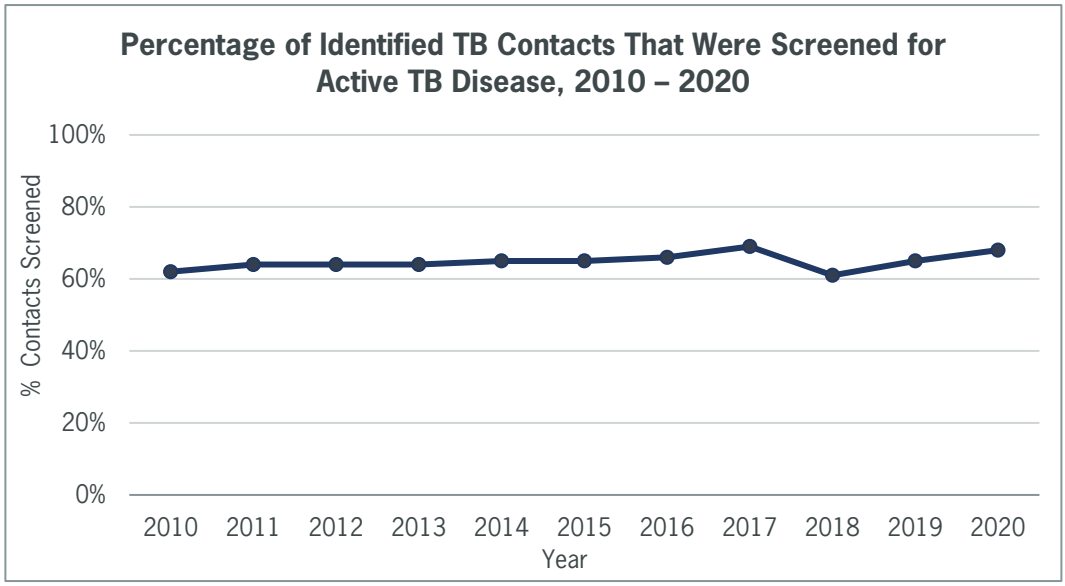
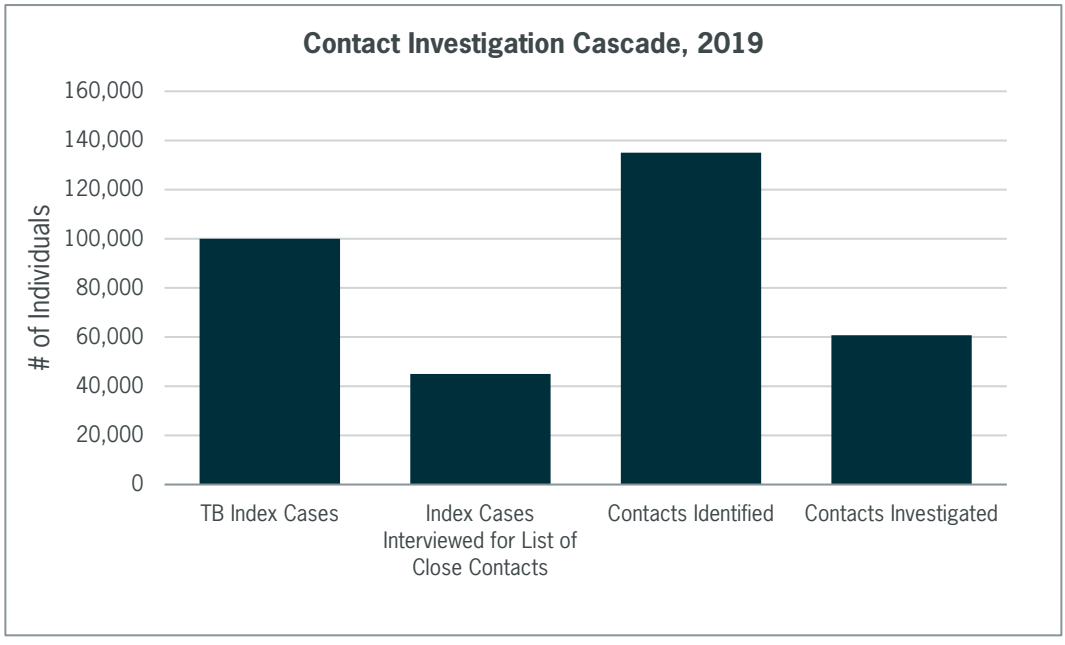
Limitations in data use include inconsistent reporting on private sector notifications from countries and non-disaggregated data on nonprofit and for-profit private providers.

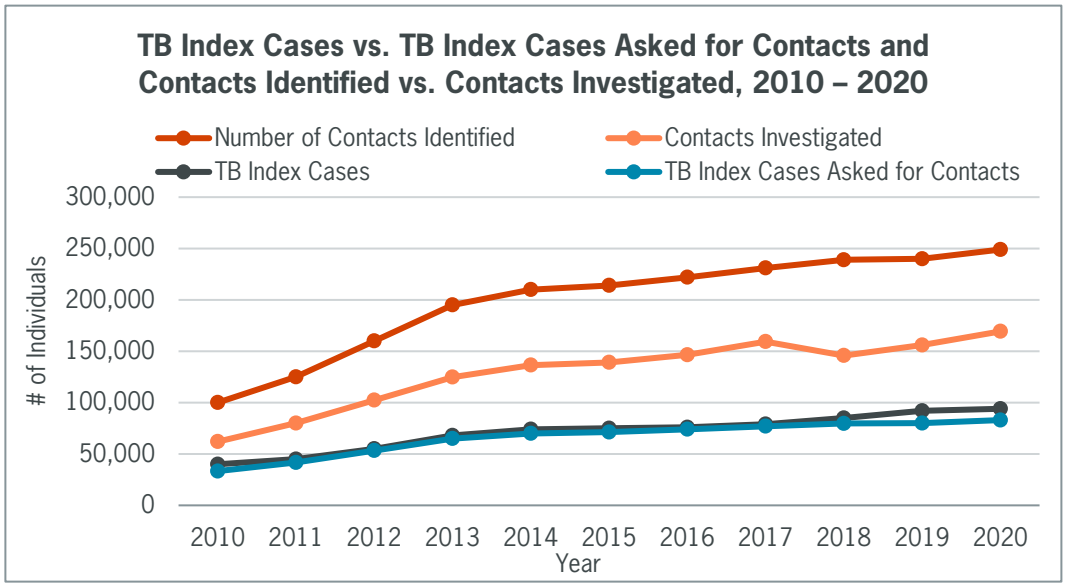
Below are examples one can use when presenting this indicator.

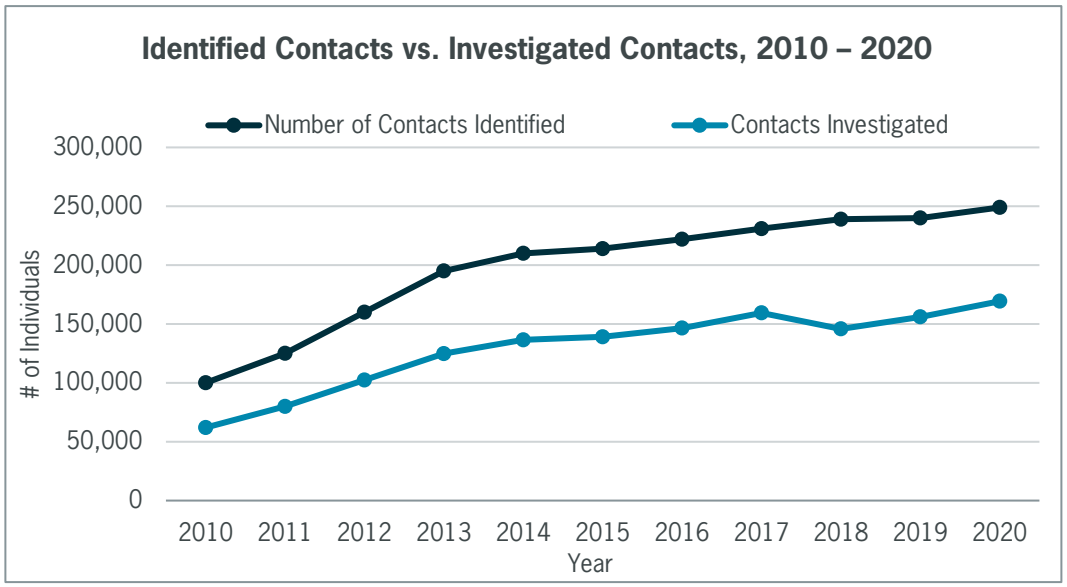




Indicator name and number	Contact Investigation Coverage
Definition	Number of contacts of bacteriologically confirmed pulmonary tuberculosis (TB) patients who were evaluated for active TB and TB infection (TBI), out of those eligible, expressed as a percentage. Contact investigation (CI) is a systematic process for identifying previously undiagnosed people with TB among the contacts of an index case. Contact investigation consists of identification, prioritization, and clinical evaluation. It may also include testing for TBI to identify candidates for TB preventive treatment (TPT). Calculation: (Numerator/Denominator) x 100
Numerator	Number of contacts of (new and relapse) notified bacteriologically confirmed pulmonary TB patients who were evaluated for active TB disease and TBI during the reporting period
Denominator	Number of contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients during the reporting period
Category	REACH
Type	Core outcome
Unit of measure	Percent of contacts
Data type	Percentage
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported on national TB program (NTP) official records, such as contact registers. If these registers do not exist, data can be collected from implementing partners supporting contact investigation interventions. The denominator can also be estimated by taking the estimated average household size, assuming the index cases come from different households. See indicator CI-2 for more information. This indicator is newly introduced in the WHO 2020 Global Data Collection Form and can be calculated using the WHO database. The variable for the numerator is *newinc_con_screen* and the denominator is *newinc_con*.
Importance	Contact investigation is an important first step both for active case finding and TPT. CI identifies people recently exposed to TB with a high risk of developing TB disease or TB infection and can help reduce the spread of TB in a community. As much as 5% of the contacts of TB cases can have active TB disease. This indicator measures the ability of NTPs to systematically identify and evaluate contacts of bacteriologically confirmed pulmonary TB patients for active TB and TBI. Contact investigations are poorly implemented in many countries and without immediate improvement will result in underachievement of the United Nations High Level Meeting targets. Contact investigation coverage is one of the top 10 indicators of the WHO End TB Strategy with a recommended target level of 90% by 2025. Increases in CI coverage will result in greater detection of TB cases and provision of appropriate anti-TB therapy (for confirmed TB cases) or TPT (for those without TB disease). Moreover, CI is a good public health practice and essential for tracking several infectious diseases (such as COVID-19).
Data use and	The total number of contacts identified can be compared to the number of contacts investigated to determine the gap in overall CI coverage. This is something that can be analyzed as a trend over time or

visualization	compared between regions to better understand contact-tracing performance. Comparisons with a country's CI coverage targets will provide the impetus to further strengthen the implementation of CI strategies within an NTP. Another comparison could be made between the number of contacts investigated per index case. Simply charting the trend of the average number of contacts investigated per index case can also give an understanding about how effective the contact investigation is. Data on CI coverage will also help countries monitor efforts to enroll eligible contacts on TPT. For example, CI coverage data can be viewed in conjunction with the number of active TB cases detected among the contacts (contact yield) and the number of eligible contacts put on TPT for TBI. Data can also be collected at the subnational level and used to learn from the geographic distribution of contacts. Data should be reported annually at a minimum but semiannually or quarterly reporting will improve the timeliness of data for decision making. See Appendix 2 for a more detailed pathway and cascade for contact investigations. Below are examples one can use when presenting this indicator.  

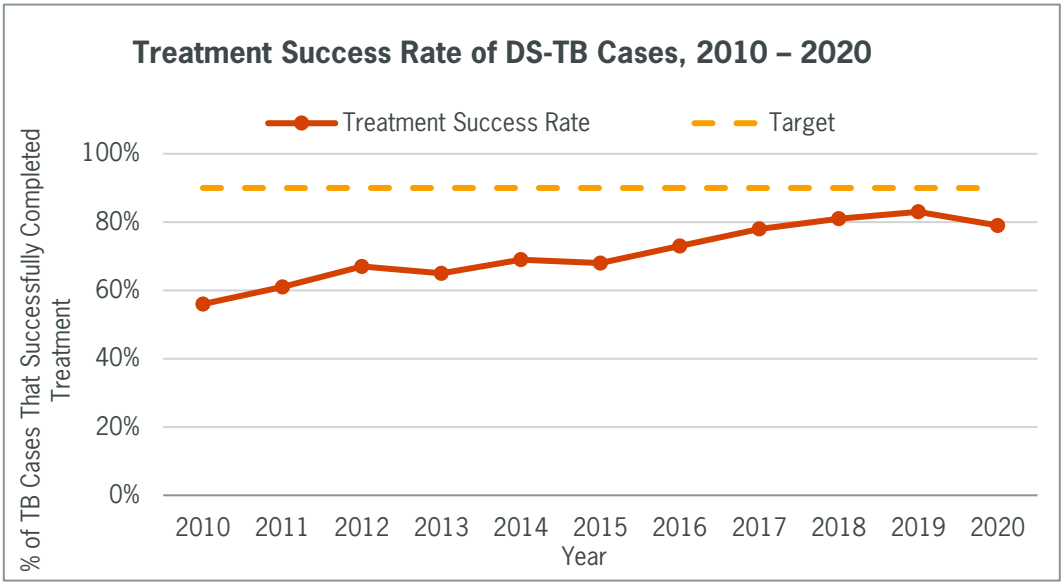

TB Index Cases vs. TB Index Cases Asked for Contacts and Contacts Identified vs. Contacts Investigated, 2010 – 2020
Number of Contacts Identified
Contacts Investigated
TB Index Cases
TB Index Cases Asked for Contacts
300,000
250,000
200,000
150,000
100,000
50,000
0
# of Individuals
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

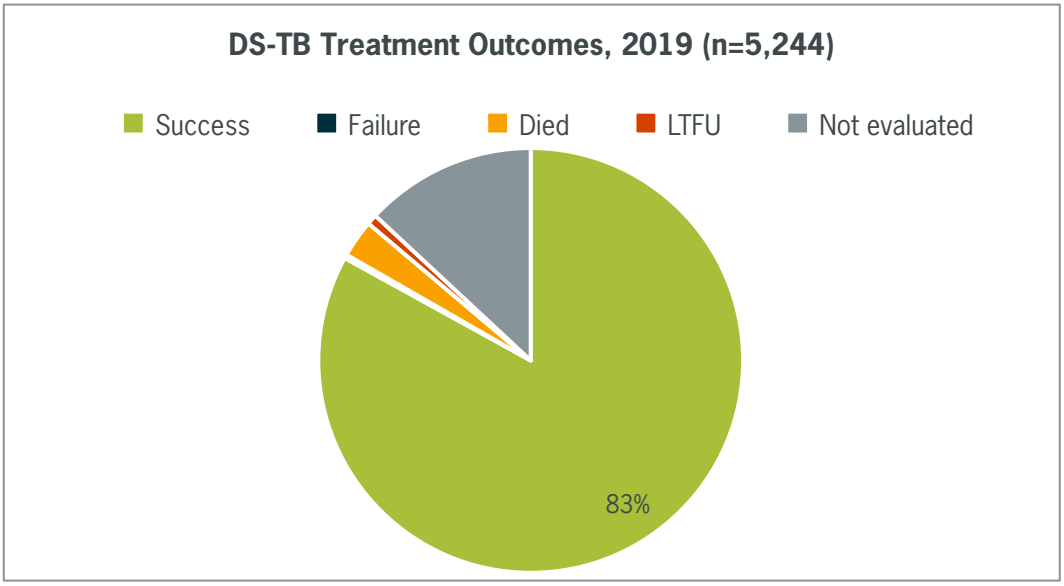

Identified Contacts vs. Investigated Contacts, 2010 – 2020
Number of Contacts Identified
Contacts Investigated
300,000
250,000
200,000
150,000
100,000
50,000
0
# of Individuals
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

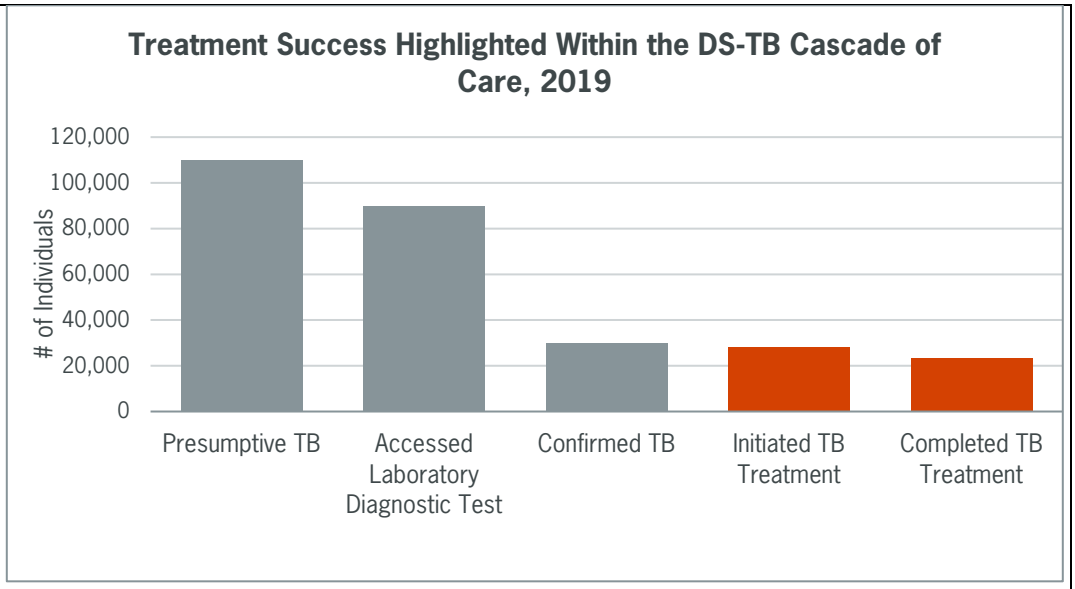
Indicator name and number	TB Treatment Success Rate
Definition	Percentage of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary) who were notified in a specified period that were cured or treatment completed, among the total new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), notified to the national health authorities during the same reporting period. Treatment outcomes are defined by the time period of enrollment on treatment; e.g., "2018 cases successfully treated" reflect those who were enrolled on treatment in 2018, even though treatment may have extended into 2019. For this reason, reports of treatment outcome data lag by one year. Calculation: (Numerator/Denominator) x 100
Numerator	Number of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), who were registered in a specified period that were cured or treatment completed
Denominator	Number of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), notified in the same period
Category	CURE
Type	Core outcome
Unit of measure	Percent of cases
Data type	Percentage
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported by national TB program (NTP) official records. *Quarterly report on TB treatment outcomes in the basic management unit* and *Form 07: Combined annual outcomes report for basic TB and for RR-/multidrug-resistant (MDR)-TB.* This standard World Health Organization (WHO) indicator can also be calculated using the WHO database. The variable for the numerator is *newrel_succ* and the denominator is *newrel_coh*.
Importance	Treatment success is an important indicator of TB disease control and service quality, as it measures the NTP's capacity to retain patients through a complete course of treatment with a favorable outcome. This indicator measures the successful treatment of a cohort of infectious cases of TB, which is essential to prevent the spread of the infection. The treatment success rate allows countries to monitor progress towards meeting global and national targets and to determine whether more resources are required to improve treatment outcomes by reducing death, loss to follow-up (LTFU), and the proportion of cases with an outcome that is not evaluated. The latest global treatment outcome data from 2018 show success rates of 85% for TB and 76% for HIV-associated TB, short of the End TB Strategy target of 90% by 2025. Detecting and successfully treating a large proportion of TB cases should have an immediate impact on TB prevalence and mortality. Low treatment success rates may indicate problems with the treatment regimens being administered, poor treatment management, adverse side effects, or comorbidities leading to death or LTFU. An understanding of why treatment success may be low is important to be able to implement solutions for improving patient care.
Data use and visualization	TB treatment success rate can be analyzed as a trend showing whether treatment success is improving or getting worse over time, and to compare the rate to national and global treatment success rate targets. A comparison of TB patients initiated on treatment and successfully completing treatment using a cascade of care will highlight the gap in the cascade where some patients were lost. (See Appendix 2 for a more detailed drug-susceptible [DS]-TB pathway and cascade of care.) The gap between treatment initiation and treatment success can be further broken down to understand why patients were unsuccessful with treatment (e.g., death, LTFU, treatment failure, or unknown

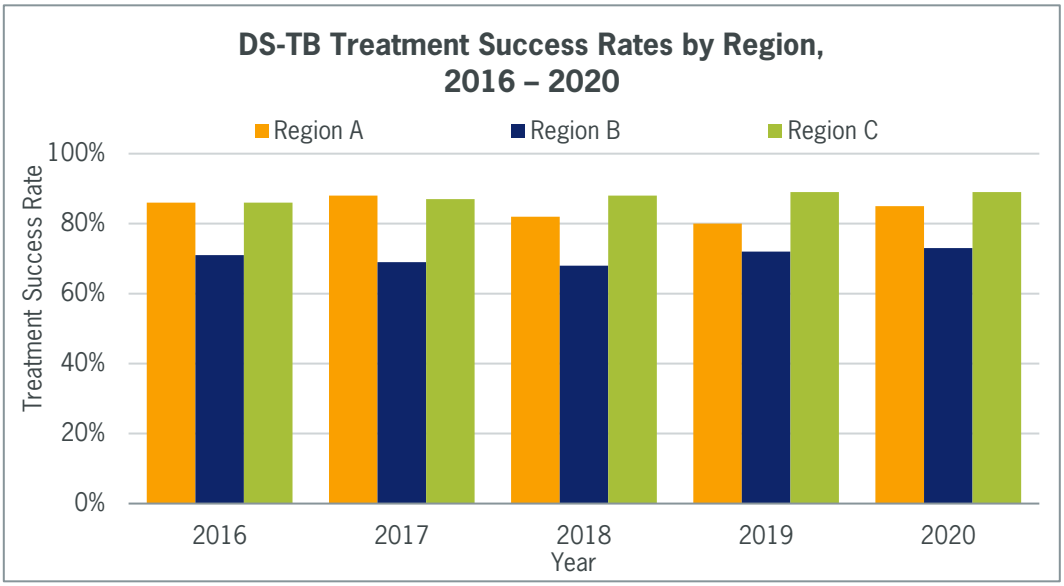
outcomes). Treatment success rates can also be compared between DS and drug-resistant TB (DR-TB) and TB/HIV.

Below are examples one can use when presenting this indicator.

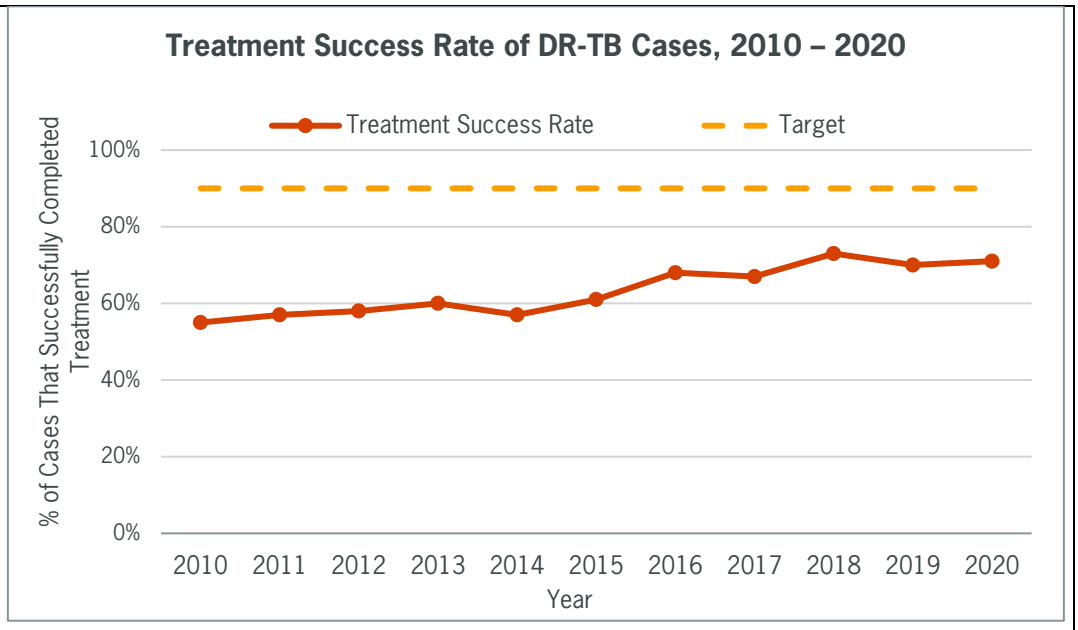


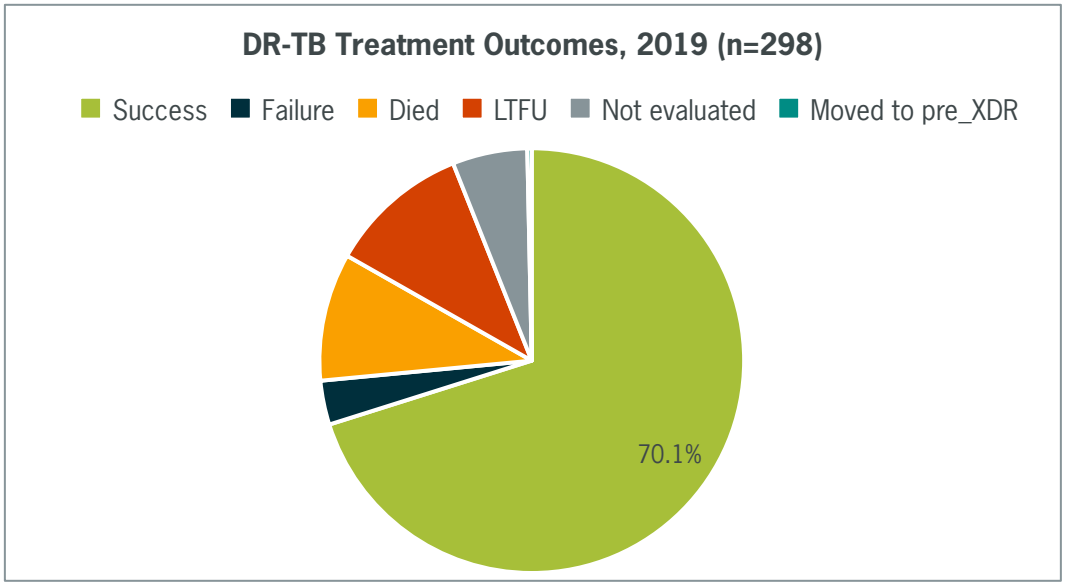


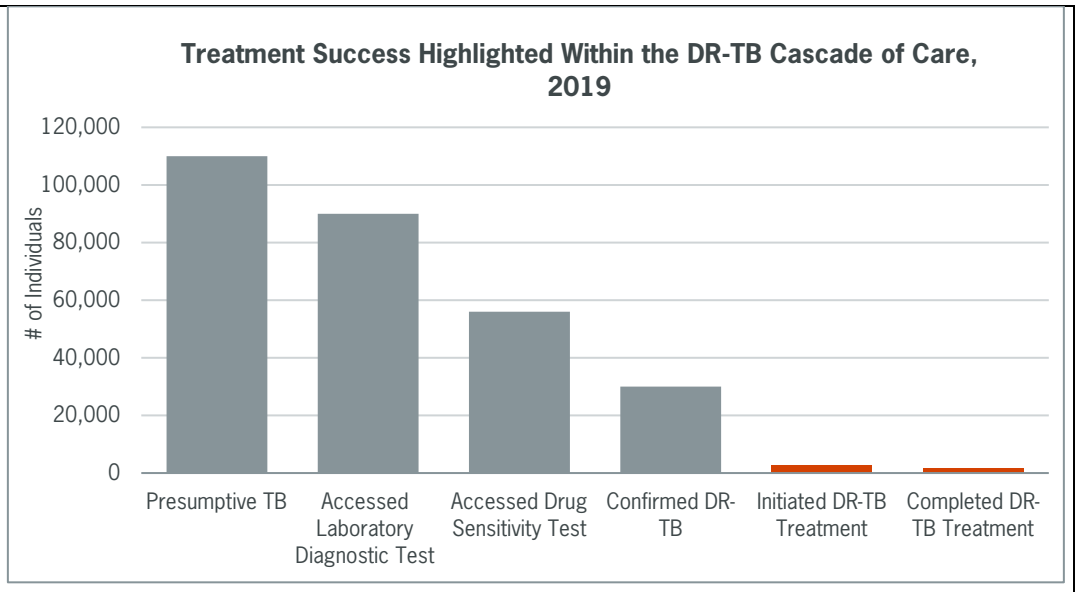

Treatment Success Highlighted Within the DS-TB Cascade of Care, 2019
120,000
100,000
80,000
60,000
40,000
20,000
0
# of Individuals
Presumptive TB
Accessed Laboratory Diagnostic Test
Confirmed TB
Initiated TB Treatment
Completed TB Treatment

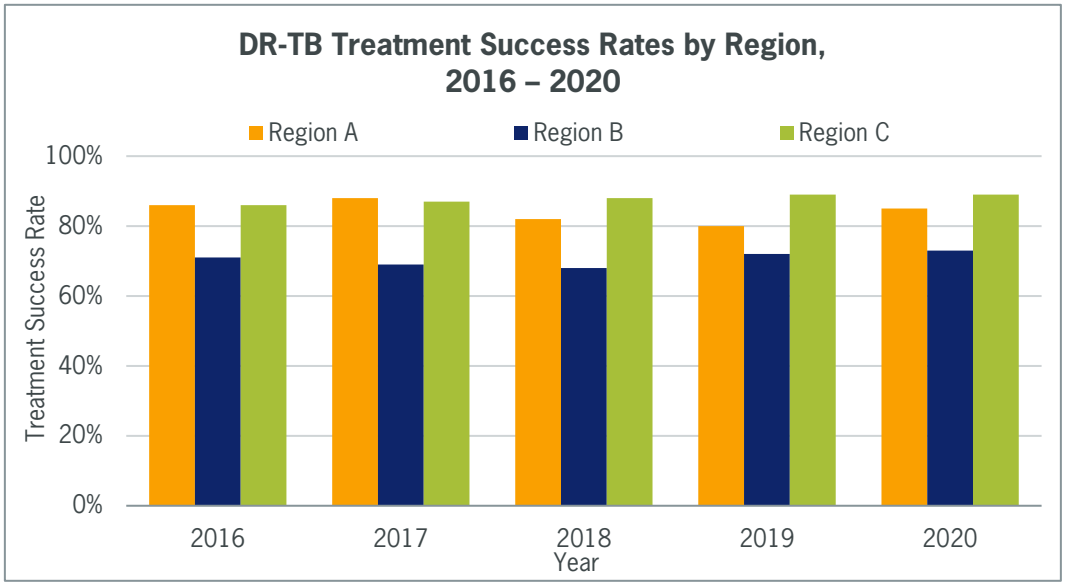

DS-TB Treatment Success Rates by Region, 2016 – 2020
Region A
Region B
Region C
100%
80%
60%
40%
20%
0%
Treatment Success Rate
2016
2017
2018
2019
2020
Year

Indicator name and number	DR-TB Treatment Success
Definition	Percentage of drug-resistant tuberculosis (DR-TB) (rifampicin-resistant [RR]/multidrug-resistant [MDR]-TB and extensively drug-resistant [XDR]-TB) cases successfully treated (cured or treatment completed) among all DR-TB cases enrolled on appropriate treatment during the reporting period. Treatment outcomes are defined by the time period of enrollment on treatment; e.g., "2018 cases successfully treated" reflect those who were enrolled on treatment in 2018, even though treatment may have extended into 2020. For this reason, reports of treatment outcome data lag by two years. Calculation: (Numerator/Denominator) x 100
Numerator	Number of DR-TB cases who were cured or treatment completed during the reporting period
Denominator	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period
Category	CURE
Type	Core outcome
Unit of measure	Percent of cases
Data type	Percentage
Potential disaggregation	Age, gender, subnational
Reporting level	National
Reporting frequency	Annually
Data sources	This indicator is reported by national TB program (NTP) official records. *Quarterly report on TB treatment outcomes in the basic management unit* and *Combined annual outcomes report for basic TB and for MDR-TB/RR-TB.* This standard World Health Organization (WHO) indicator can also be calculated using the WHO database. The variable for the numerator is *mdr_succ* plus *xdr_succ* and the denominator is *mdr_coh* plus *xdr_coh.*
Importance	DR-TB treatment success measures a TB program's ability to enroll DR-TB patients on appropriate treatment and retain patients throughout the entire course of DR-TB treatment. This final outcome is the most important measure of the effectiveness of the DR-TB program in terms of patient care. Therefore, it is also a performance indicator for the NTP as a whole. Although improving in some countries, the treatment success rate reported in 2019 for DR-TB globally remains low at 57% for MDR-TB/RR-TB. However, the wider use of more effective, shorter, and "all oral" DR-TB treatment regimens, as well as more patient-centered models of care, are expected to improve treatment success rates. USAID's *National Action Plan* seeks to ensure that 90% of TB patients are treated and cured to prevent development of DR-TB. Improvements in DR-TB treatment success can help to reduce the overall TB mortality rate. High treatment success coupled with high coverage of patients are both critical to having an impact on the DR-TB burden in a country.
Data use and visualization	Drug-resistant treatment success rate can be analyzed as a trend over time and compared to national and global DR-TB treatment success rate targets. A cascade can also be constructed to highlight gaps in care where some patients could be lost. (See Appendix 2 for a more detailed DR-TB pathway and cascade of care.) The gap between treatment initiation and treatment success can be further broken down to understand why patients were unsuccessful with treatment (e.g., death, treatment failure, moved to pre-XDR treatment, or unknown outcomes). Below are examples one can use when presenting this indicator.

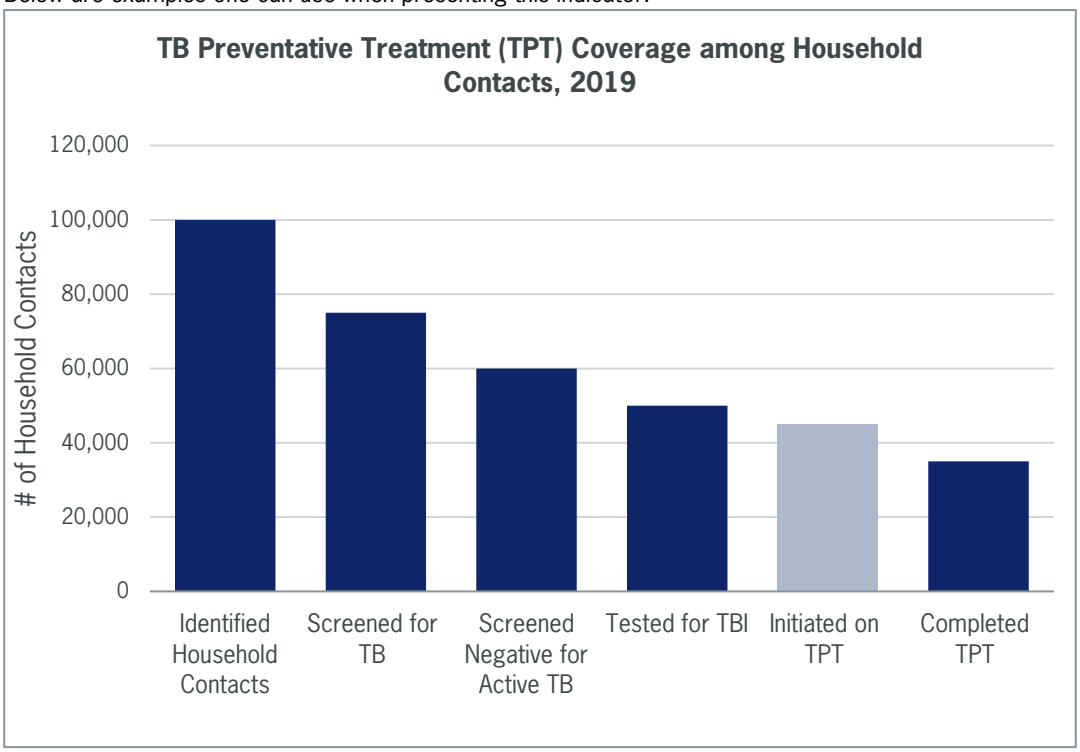

Treatment Success Rate of DR-TB Cases, 2010 – 2020
Treatment Success Rate
Target
% of Cases That Successfully Completed Treatment
100%
80%
60%
40%
20%
0%
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year


DR-TB Treatment Outcomes, 2019 (n=298)
Success
Failure
Died
LTFU
Not evaluated
Moved to pre_XDR
70.1%

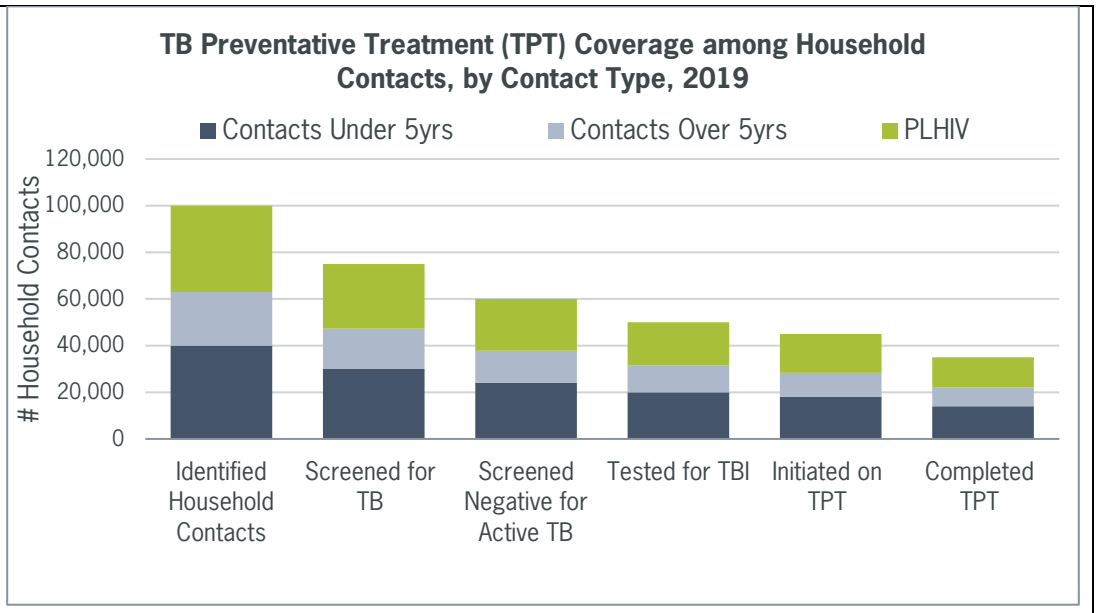

Treatment Success Highlighted Within the DR-TB Cascade of Care, 2019
120,000
100,000
80,000
60,000
40,000
20,000
0
# of Individuals
Presumptive TB
Accessed Laboratory Diagnostic Test
Accessed Drug Sensitivity Test
Confirmed DR-TB
Initiated DR-TB Treatment
Completed DR-TB Treatment

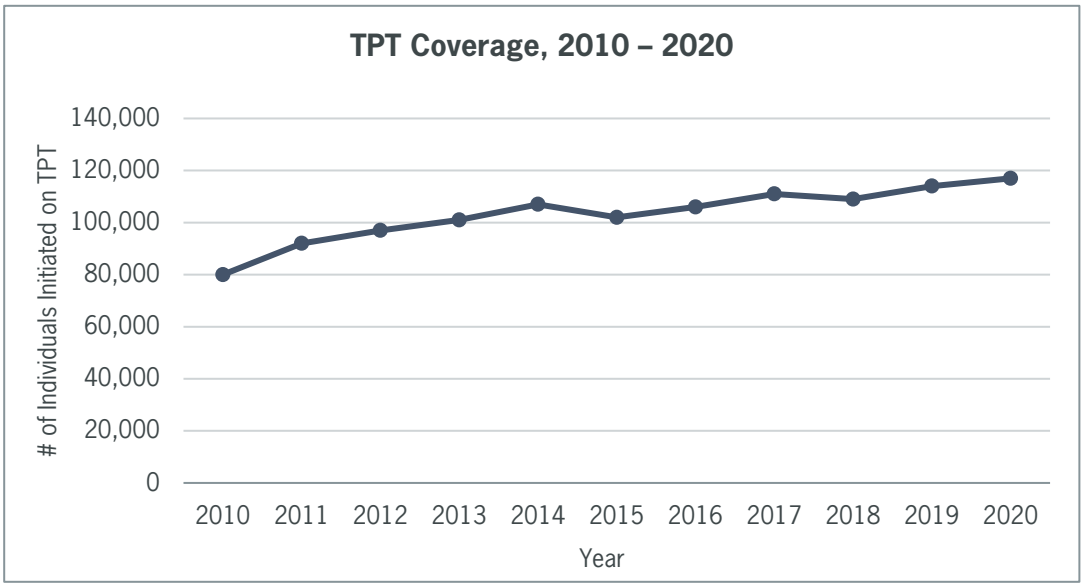

DR-TB Treatment Success Rates by Region, 2016 – 2020
Region A
Region B
Region C
100%
80%
60%
40%
20%
0%
Treatment Success Rate
2016
2017
2018
2019
2020
Year

Indicator name and number	**TB Preventive Treatment Coverage**
Definition	Number of eligible individuals who were started on tuberculosis (TB) preventive treatment (TPT) according to national TB prevention treatment protocols during the reporting period. This includes: (1) household contacts (adults and children under 5) of people with bacteriologically confirmed pulmonary new and relapse TB cases notified, and (2) people living with HIV (PLHIV) enrolled in HIV care. Individuals who are eligible for TPT are those who are ruled out for TB disease and meet other criteria as specified in the national TB prevention treatment guidelines or protocols. According to World Health Organization (WHO) TPT guidelines: **A household contact** is a person who shared the same enclosed living space as the index case for one or more nights or for frequent or extended daytime periods during the three months before the start of current treatment. **An index case (index patient) of TB** is the initially identified person of any age with new or recurrent (bacteriologically confirmed pulmonary) TB in a specific household or other comparable setting in which others may have been exposed. An index case is the person on which a contact investigation is centered but is not necessarily the source case.
Numerator	Number of eligible individuals who were started on TPT according to national TB prevention treatment protocols during the reporting period, which includes: 1) Household contacts (adult and children under 5) of people with bacteriologically confirmed pulmonary TB 2) PLHIV enrolled in HIV care during the reporting period
Denominator	N/A
Category	PREVENT
Type	Core outcome
Unit of measure	Number of eligible individuals
Data type	Integer
Disaggregation	Contacts under 5 years of age, contacts over 5 years of age, and PLHIV
Reporting level	National
Reporting frequency	Annual
Data sources	National TB program (NTP) official records report on this indicator. Some NTPs may include TPT initiation on the quarterly report on TB case registration or quarterly report on TB treatment outcomes, but this may vary country to country. In other settings, this data is available at the individual (case-based) levels through the NTP or HIV/AIDS program for PLHIV. This standard WHO indicator can also be calculated using the WHO database variable: *newinc_con_prevtx* plus *hiv_ipt_reg_all*
Importance	Prevention of new infections of mycobacterium TB and their progression to TB disease is critical to reduce the burden of ill health and death caused by TB, and to achieve the End TB Strategy targets set for 2030 and 2035. This indicator, when measured over time, provides information on the trajectory of TPT scale-up and helps assess progress towards United Nations High Level Meeting (UNHLM) targets. Globally in 2019, 33% of children under 5 years household contacts of bacteriologically confirmed TB, and 50% of PLHIV were initiated on TPT. While PLHIV are on track to reach the UNHLM target of 6 million on TPT, the number of children under 5 years and adult household contacts placed on TPT are falling short of the numbers required to meet the targets (4 million and 20 million, respectively). TPT coverage data will help program managers monitor TB prevention efforts targeted towards protecting people who are exposed to TB infection and are at risk of becoming sick. Understanding TPT coverage will also reduce the risk of transmission in the community and, thereby, reduce incidence of TB disease in the country. TPT coverage levels will also indicate the success of a country's implementation of the TPT strategy and robustness of programmatic management of TPT.

Data use and visualization	A trend analysis of this indicator can track progress over time as TPT interventions scale up. A cascade of care can also highlight the gaps between contact investigations, finding individuals who are eligible for TPT[14] and finding those who are initiated on TPT. TPT coverage can further be broken down to understand what proportion of cases initiated on TPT is made up of PLHIV, contacts under 5 years of age, and contacts over 5 years of age for reporting against UNHLM targets. See Appendix 2 for a more detailed TPT pathway and cascade of care. Below are examples one can use when presenting this indicator. 

[14] More information on calculating the number of people eligible for TPT can be found in the WHO Operational Handbook on Tuberculosis: Module 1: Prevention: Tuberculosis Preventive Treatment https://www.who.int/publications/i/item/9789240002906

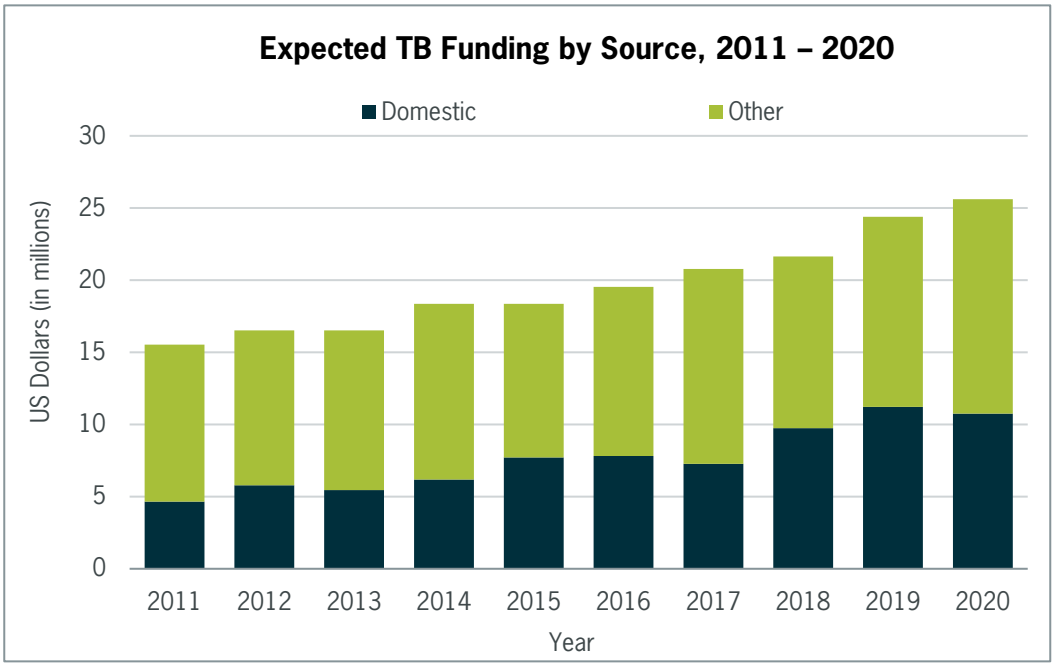

TB Preventative Treatment (TPT) Coverage among Household Contacts, by Contact Type, 2019
Contacts Under 5yrs
Contacts Over 5yrs
PLHIV
Household Contacts
120,000
100,000
80,000
60,000
40,000
20,000
0
Identified Household Contacts
Screened for TB
Screened Negative for Active TB
Tested for TBI
Initiated on TPT
Completed TPT

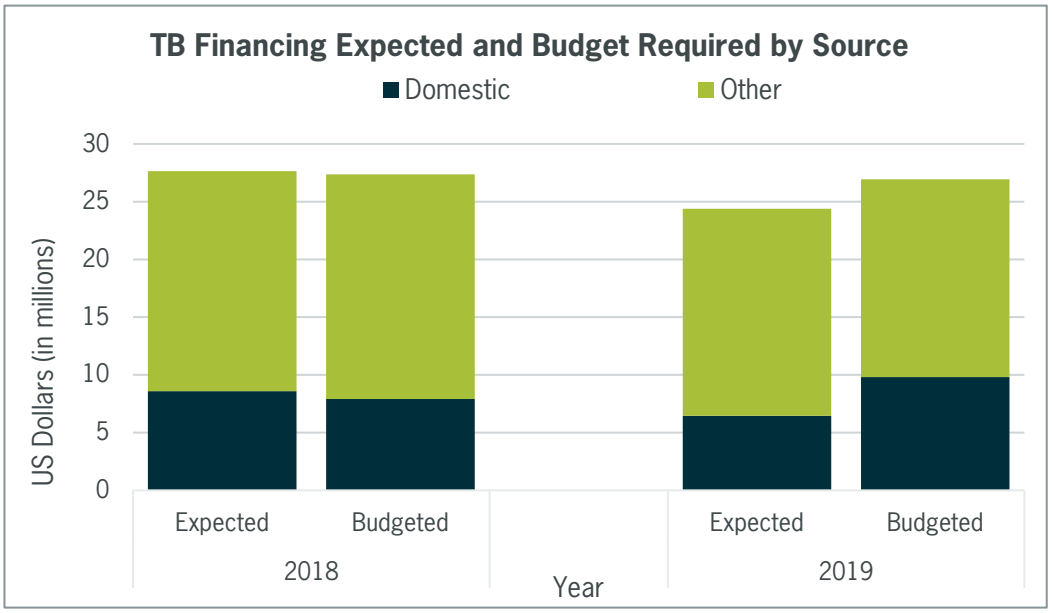

TPT Coverage, 2010 – 2020
# of Individuals Initiated on TPT
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

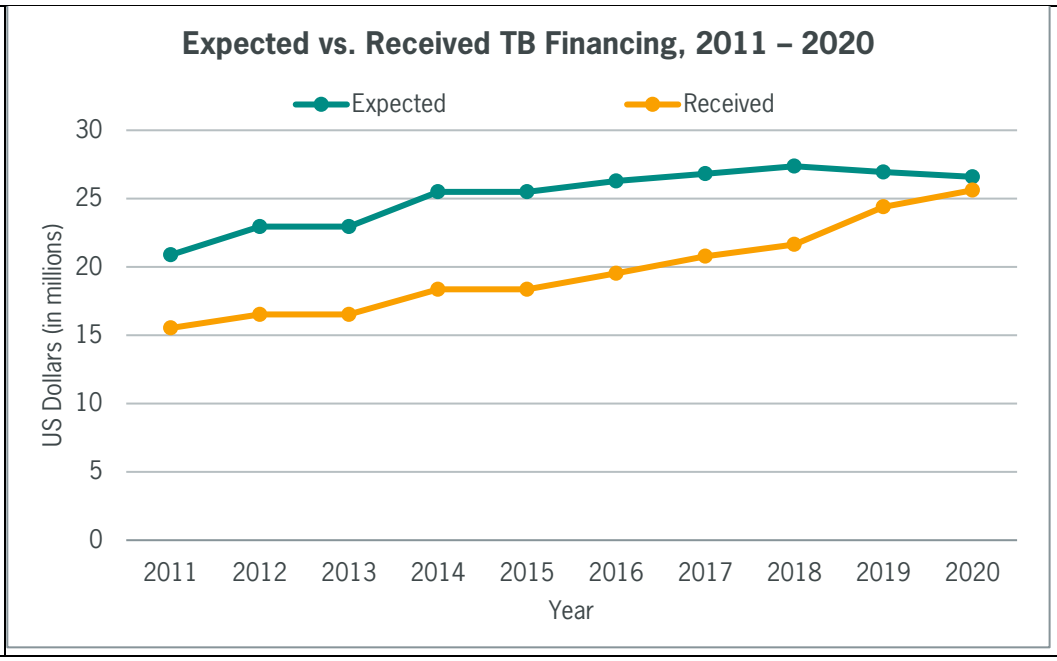
Indicator name and number	**Percent of TB Financing Expected from Domestic Sources**
Definition	Percentage of a national tuberculosis program's (NTP's) budget expected to be funded from domestic sources during the reporting period. Calculation: (Numerator/Denominator) x 100
Numerator	NTP's budget expected to be funded from domestic sources (including loans) during the reporting period (in US dollars)
Denominator	NTP's budget expected to be funded from all sources (domestic, the Global Fund to Fight AIDS, Tuberculosis and Malaria, USAID, and other sources) during the reporting period (in US Dollars)
Category	SUSTAIN
Type	Core outcome
Unit of measure	Percent of funding
Data type	Percentage
Potential disaggregation	
Reporting level	National
Reporting frequency	Annual
Data sources	This indicator is reported by NTP official records and budgets. This standard World Health Organization (WHO) indicator can also be calculated using the WHO database. The variable for the numerator is *cf_tot_domestic (expected funding from domestic sources, including loans [US dollars])*, and the denominator is *cf_tot_sources (total expected funding from all sources [US dollars]).*
Importance	A key measurement of a country's sustainability of resources is how it implements its national TB strategic plan. While international donor funding is still critical for low- and middle-income countries, increasing the share of funding from domestic sources is necessary for sustainability. This indicator measures the amount of funding that is expected to be mobilized from domestic sources out of all available sources. It is a good planning tool for the country to gauge how much it can and should plan to mobilize in the next budget cycle to reduce the level of dependency on international donors. According to the 2020 WHO Global TB Report, most of the USD$6.5 billion available in 2019 is from domestic sources (61% of the total). However, the high volume of funding in the BRICS group of countries (Brazil, the Russian Federation, India, China, and South Africa) influences this figure. In other low- and middle-income countries, international donor funding remains crucial. This indicator is also a measure of a national government's level of financial commitment to TB.
Data use and visualization	Percentage of expected domestic financing for TB can be analyzed as a trend over time either on its own or against country and/or global targets, such as the total budget required to fund a national strategic plan. Indeed, a comparison between the total budget required (*budget_tot*) versus the amount expected (*cf_tot_sources*) will give a picture of the budget shortfall that the NTP will face, and therefore help in deciding domestic resource mobilization to meet those shortfalls. Further, budgeted or expected funds can be compared to funds received or disbursed to highlight gaps in utilization of domestic funding either within a given year or budget cycle, or as a trend over time. Thus, analyzing the general trend of funding received from domestic sources, including loans (US dollars) [*rcvd_tot_domestic*] as a percentage of expected funding from domestic sources, including loans (US dollars) [*cf_tot_domestic*] can help to understand the chronic deficiency the country is facing in fulfilling its budgetary commitment to NTP. This could be reviewed in the context

of overall budget shortfall/over-budgeting by comparing total funding received for all budget line items (US dollars) *[rcvd_tot]* versus total budget required (US dollars) *[budget_tot]*.

Below are examples one can use when presenting this indicator.






Expected vs. Received TB Financing, 2011 – 2020
Expected
Received
US Dollars (in millions)
30
25
20
15
10
5
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

References for the TB DIAH Indicator Reference Sheets

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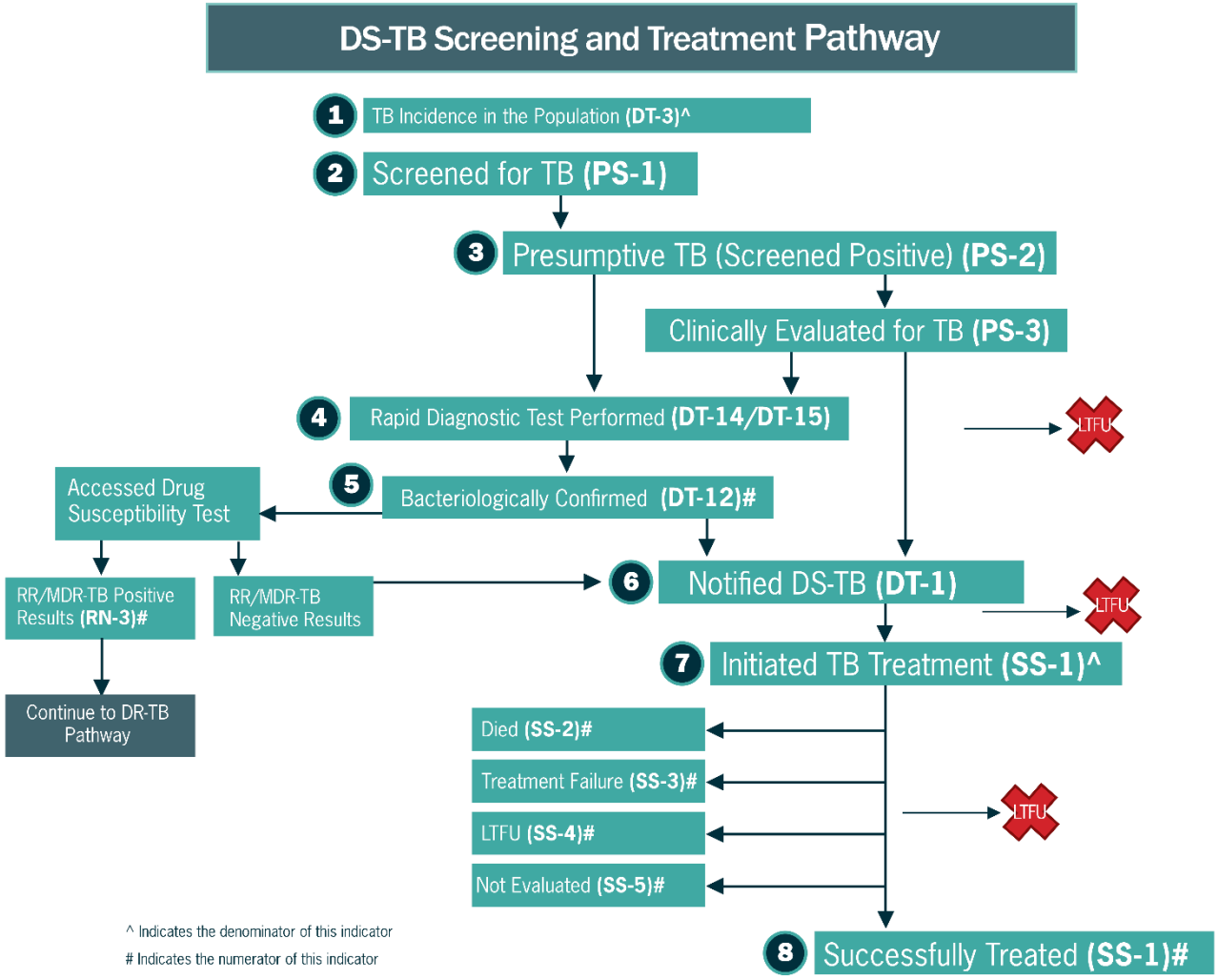
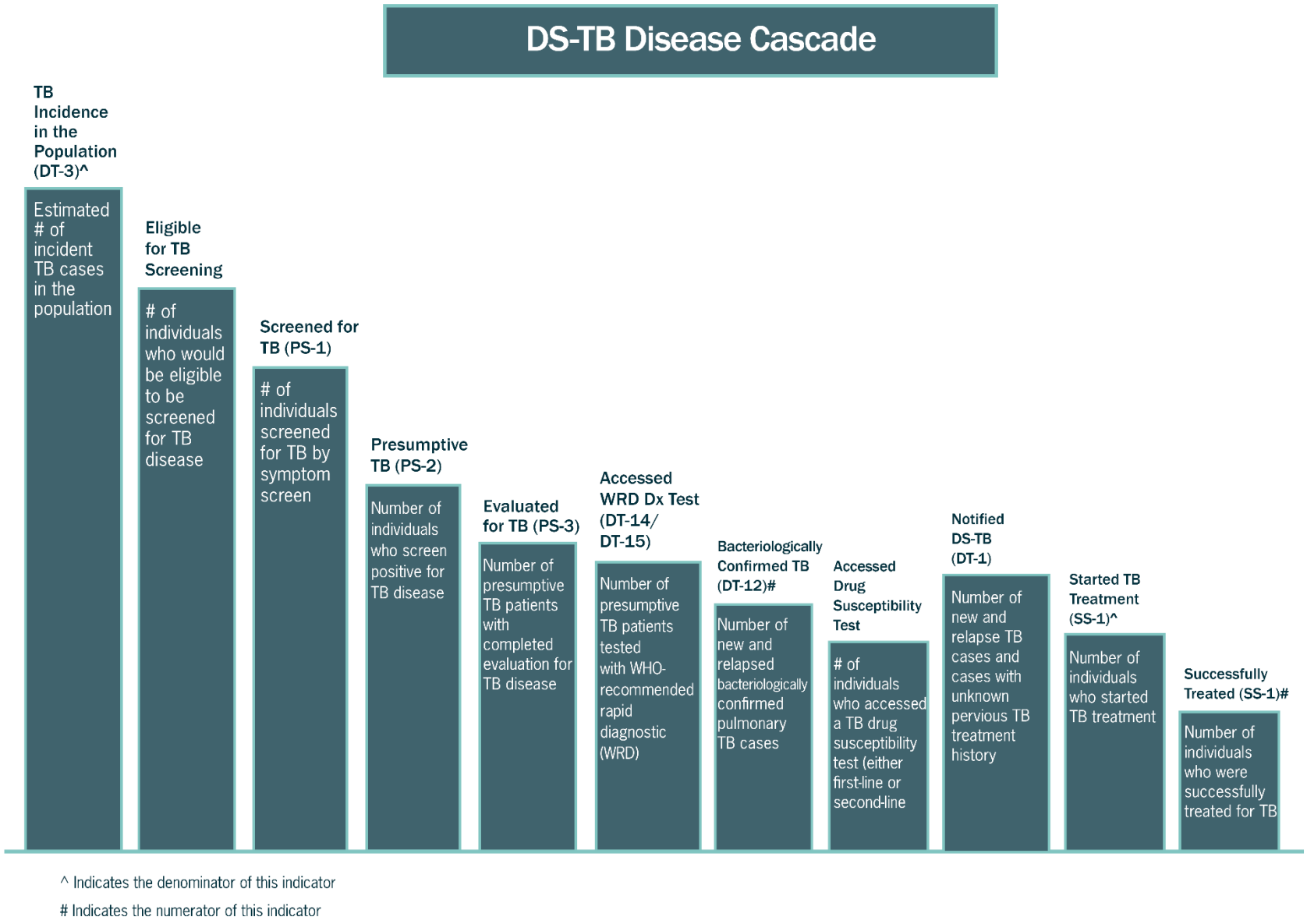
Appendix 2. Cascades and Patient Pathways

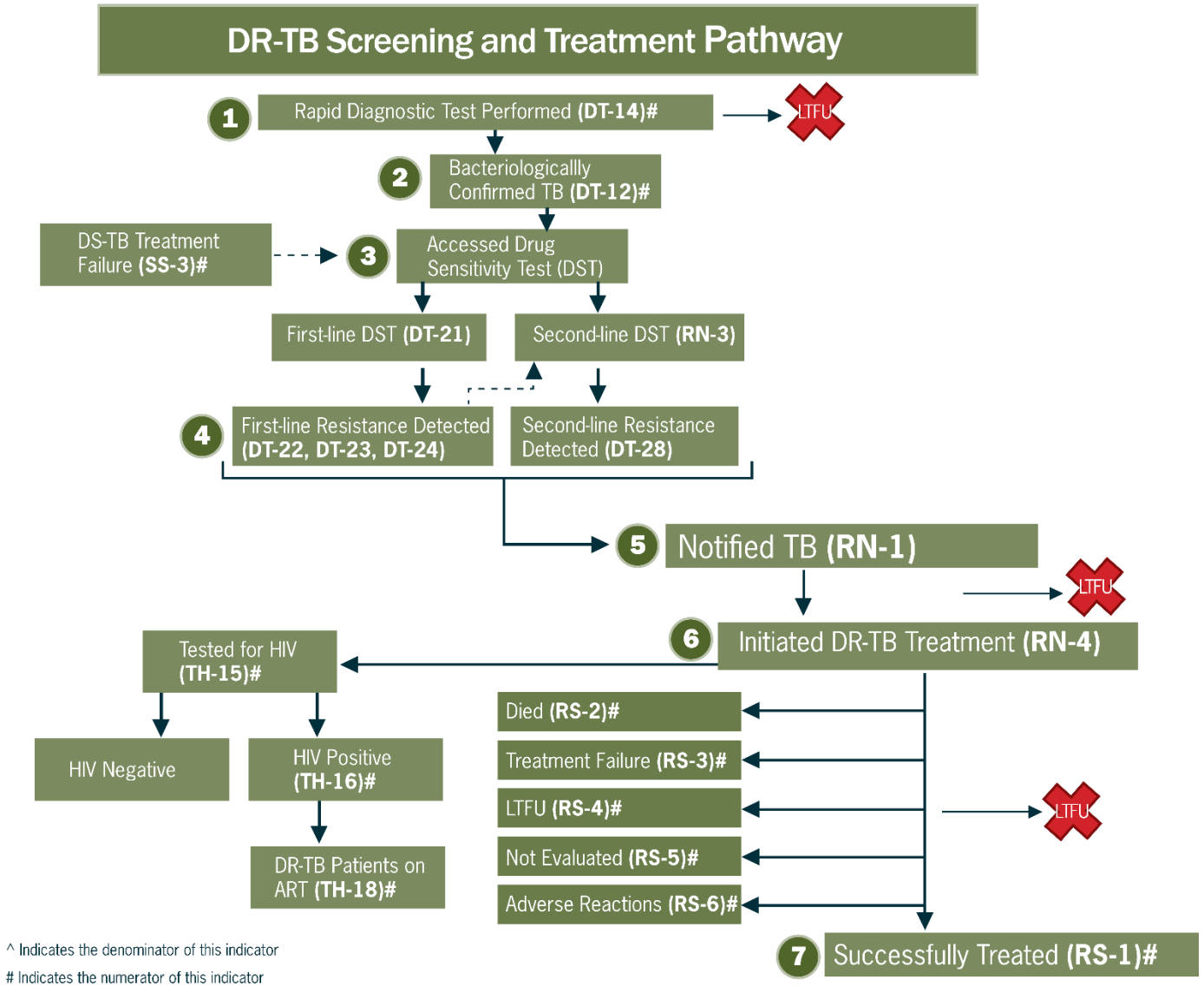
The following cascades and patient pathways can be constructed from the indicators defined in the PBMEF.



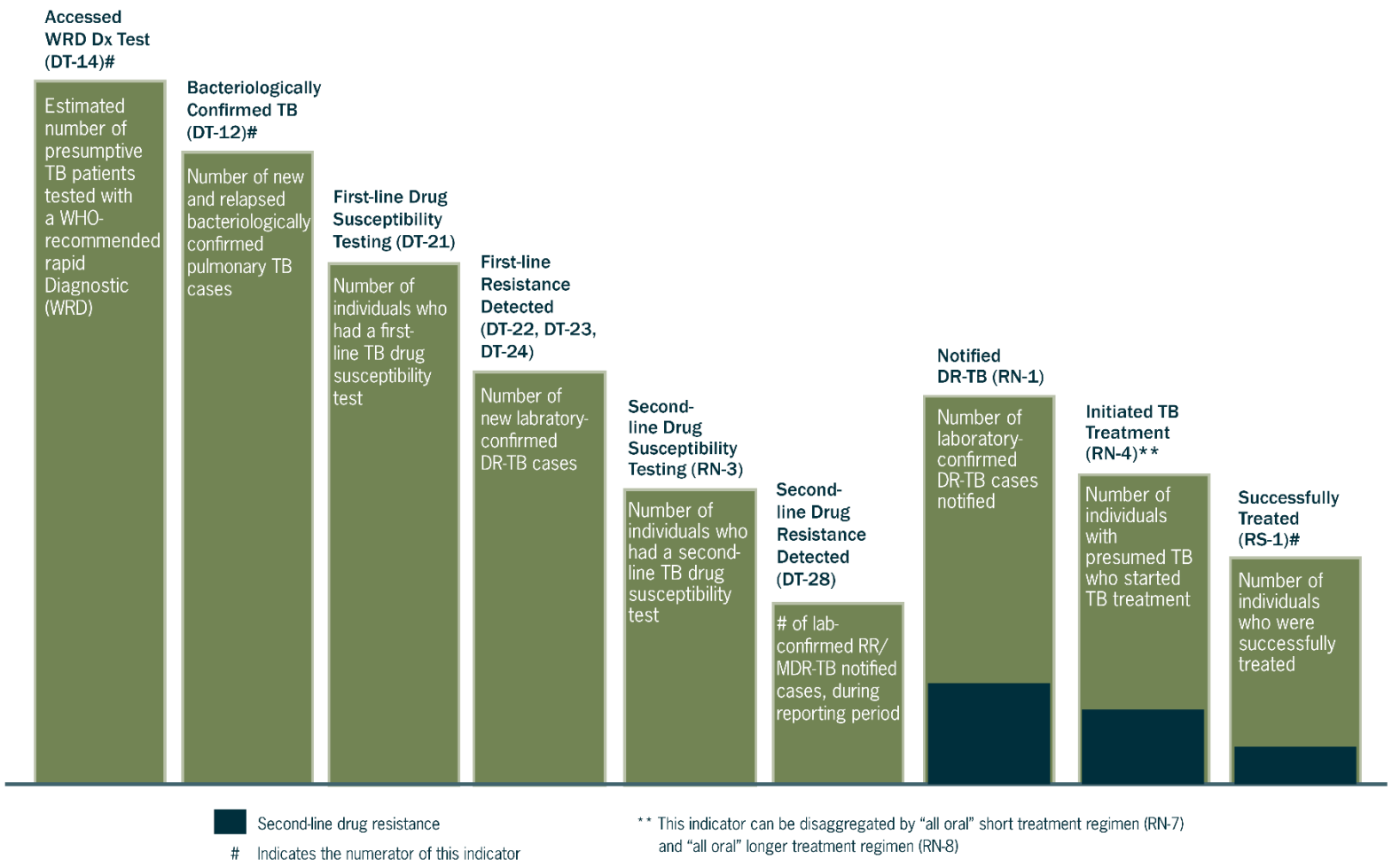


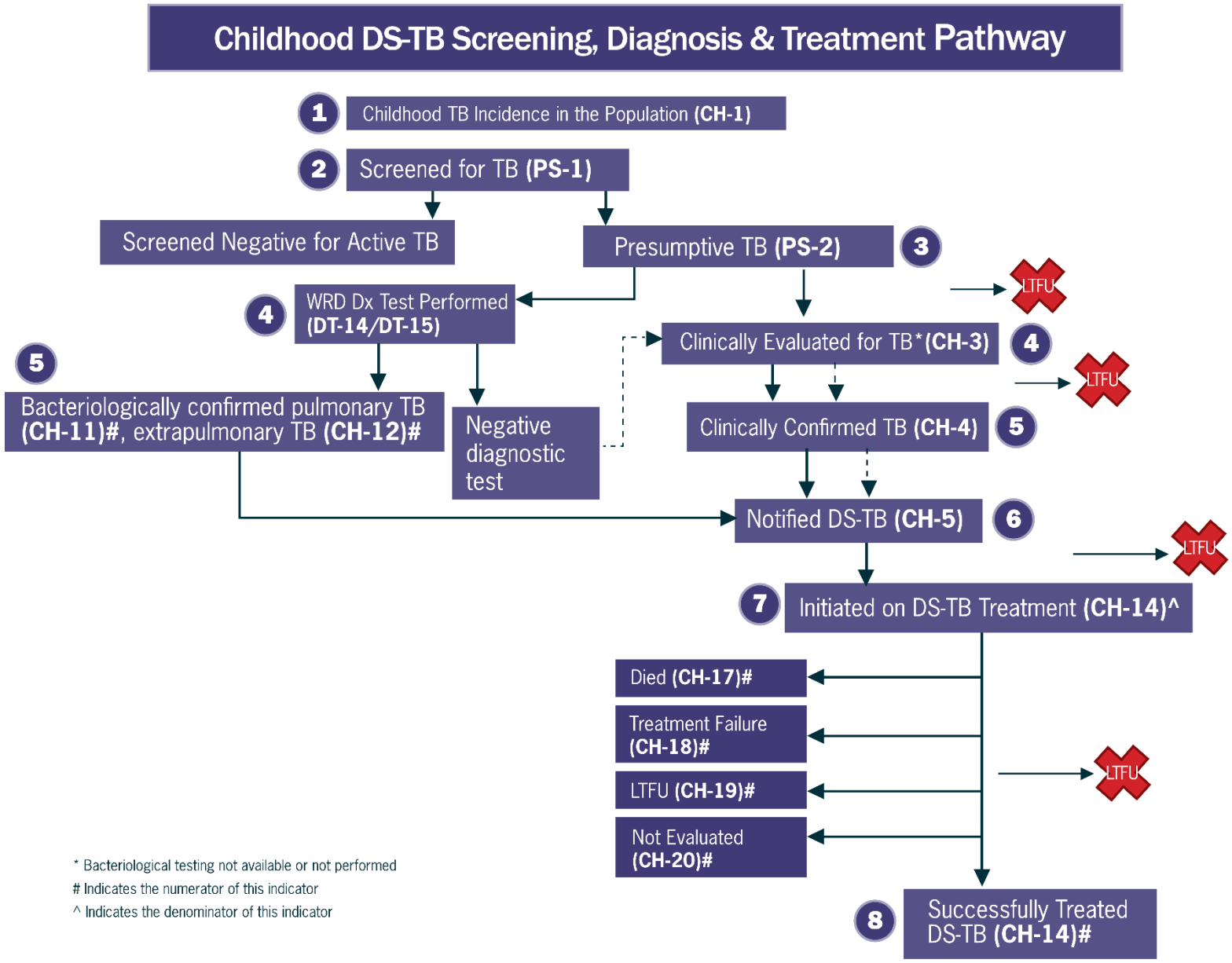
^ Indicates the denominator of this indicator

# Indicates the numerator of this indicator

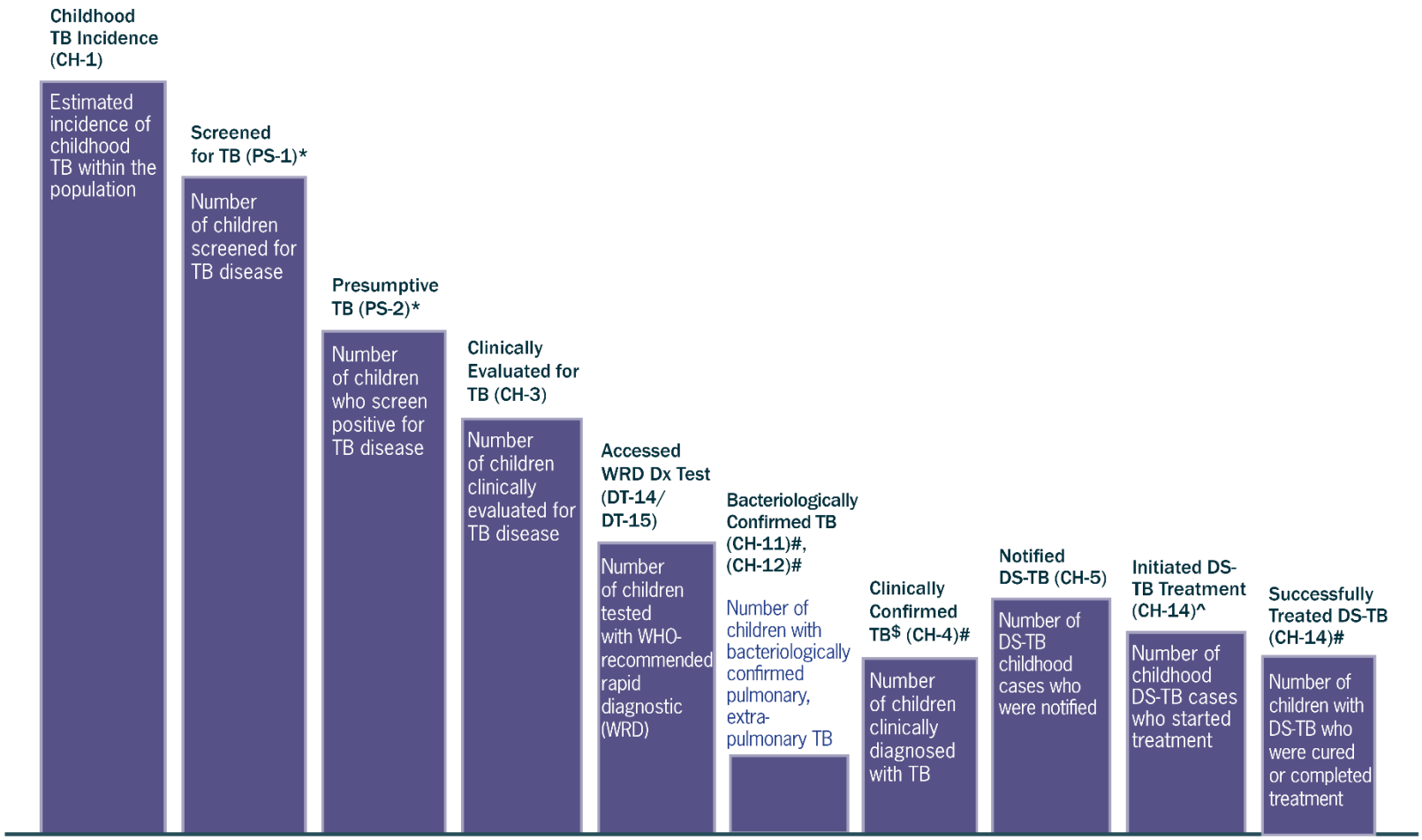

DR-TB Screening and Treatment Pathway
1
Rapid Diagnostic Test Performed (DT-14)#
LTFU
2
Bacteriologicallly Confirmed TB (DT-12)#
DS-TB Treatment Failure (SS-3)#
3
Accessed Drug Sensitivity Test (DST)
First-line DST (DT-21)
Second-line DST (RN-3)
4
First-line Resistance Detected (DT-22, DT-23, DT-24)
Second-line Resistance Detected (DT-28)
5
Notified TB (RN-1)
LTFU
6
Initiated DR-TB Treatment (RN-4)
Tested for HIV (TH-15)#
HIV Negative
HIV Positive (TH-16)#
DR-TB Patients on ART (TH-18)#
Died (RS-2)#
Treatment Failure (RS-3)#
LTFU (RS-4)#
Not Evaluated (RS-5)#
Adverse Reactions (RS-6)#
LTFU
7
Successfully Treated (RS-1)#
^ Indicates the denominator of this indicator
# Indicates the numerator of this indicator

DR-TB Disease Cascade




Childhood DS-TB Screening, Diagnosis & Treatment Pathway
1
Childhood TB Incidence in the Population (CH-1)
2
Screened for TB (PS-1)
Screened Negative for Active TB
Presumptive TB (PS-2)
3
LTFU
4
WRD Dx Test Performed (DT-14/DT-15)
Clinically Evaluated for TB* (CH-3)
4
LTFU
5
Bacteriologically confirmed pulmonary TB (CH-11)#, extrapulmonary TB (CH-12)#
Negative diagnostic test
Clinically Confirmed TB (CH-4)
5
Notified DS-TB (CH-5)
6
LTFU
7
Initiated on DS-TB Treatment (CH-14)^
Died (CH-17)#
Treatment Failure (CH-18)#
LTFU (CH-19)#
Not Evaluated (CH-20)#
LTFU
8
Successfully Treated DS-TB (CH-14)#
* Bacteriological testing not available or not performed
# Indicates the numerator of this indicator
^ Indicates the denominator of this indicator

Childhood DS-TB Disease Cascade

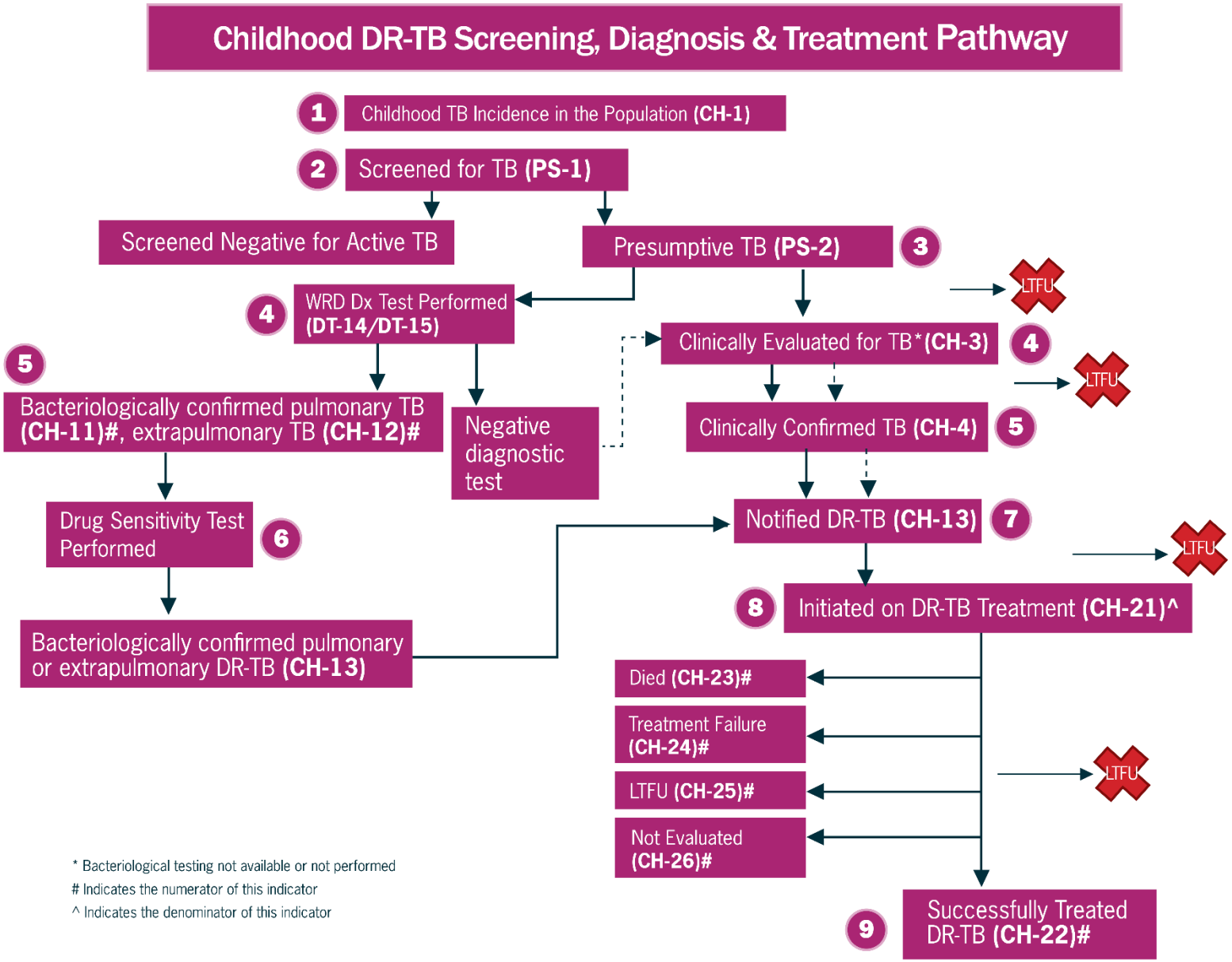


* Childhood TB counts would be a disaggregation of this indicator

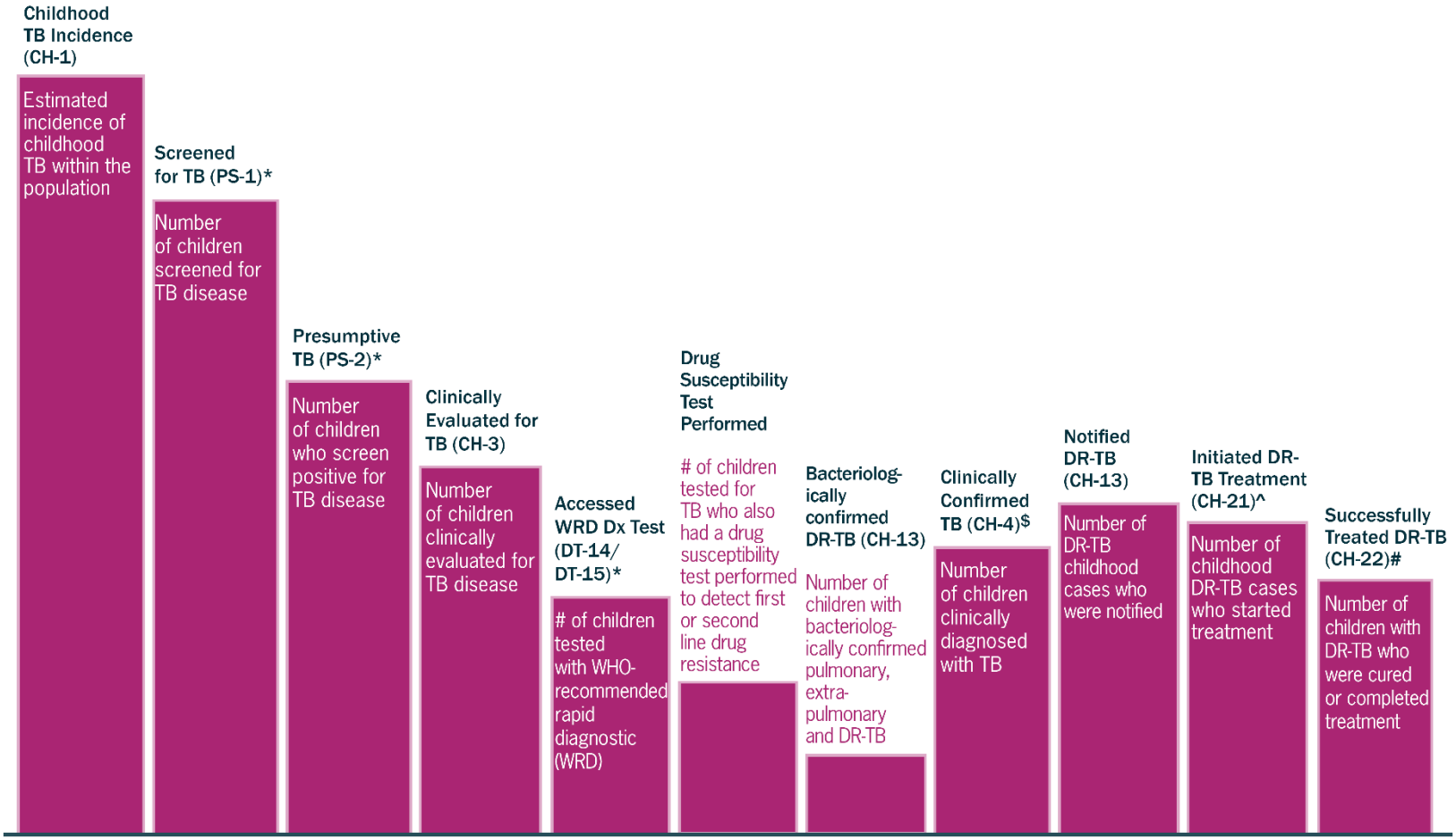
# Indicates the numerator of this indicator

^ Indicates the denominator of this indicator

$ When Dx/WRD Dx Testing is not available or is negative and suspicion remains high


Childhood DR-TB Screening, Diagnosis & Treatment Pathway
1
Childhood TB Incidence in the Population (CH-1)
2
Screened for TB (PS-1)
Screened Negative for Active TB
Presumptive TB (PS-2)
3
LTFU
4
WRD Dx Test Performed (DT-14/DT-15)
Clinically Evaluated for TB* (CH-3)
4
LTFU
5
Bacteriologically confirmed pulmonary TB (CH-11)#, extrapulmonary TB (CH-12)#
Negative diagnostic test
Clinically Confirmed TB (CH-4)
5
Drug Sensitivity Test Performed
6
Notified DR-TB (CH-13)
7
LTFU
Bacteriologically confirmed pulmonary or extrapulmonary DR-TB (CH-13)
8
Initiated on DR-TB Treatment (CH-21)^
Died (CH-23)#
Treatment Failure (CH-24)#
LTFU (CH-25)#
LTFU
Not Evaluated (CH-26)#
9
Successfully Treated DR-TB (CH-22)#
* Bacteriological testing not available or not performed
# Indicates the numerator of this indicator
^ Indicates the denominator of this indicator

Childhood DR-TB Disease Cascade

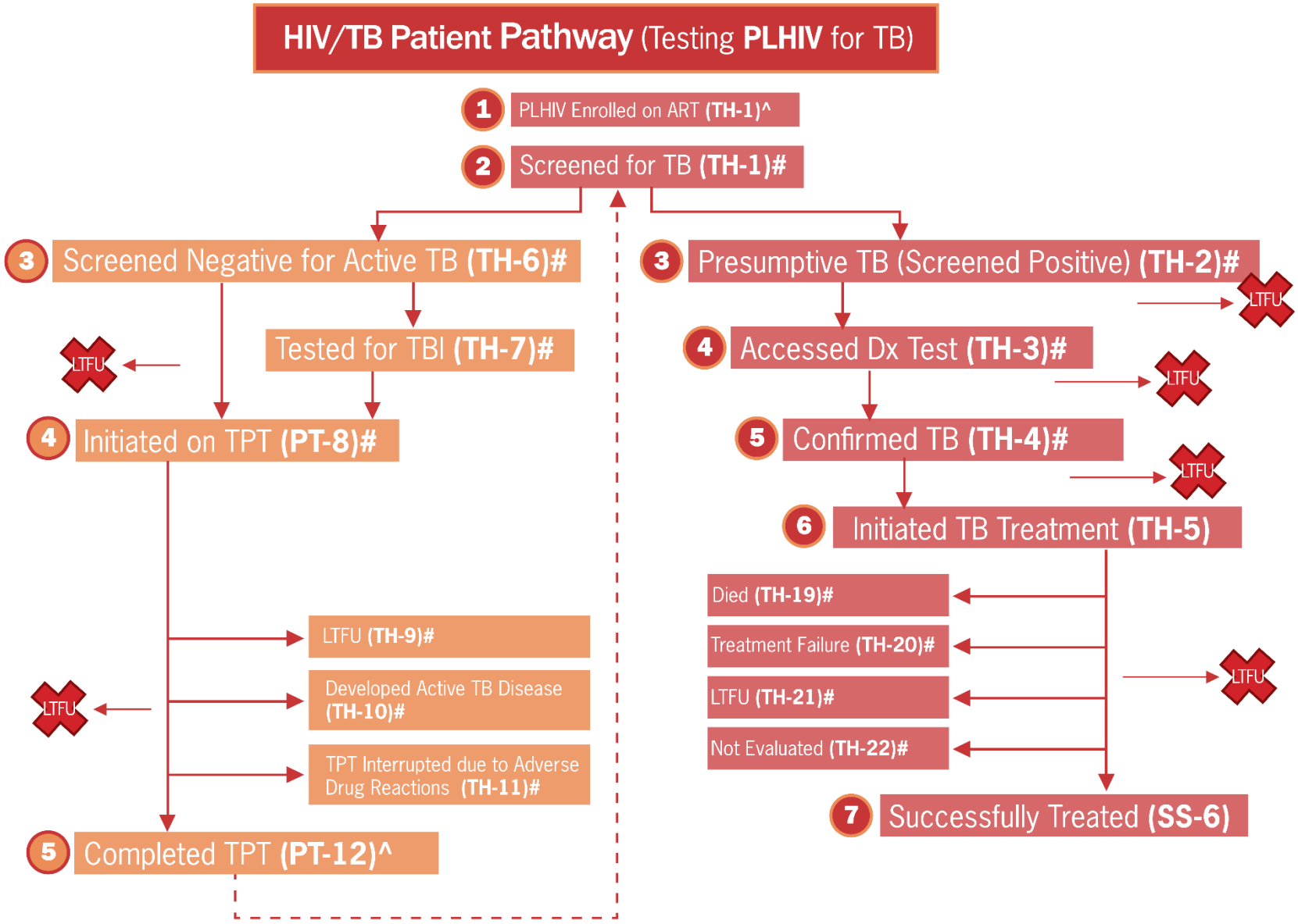


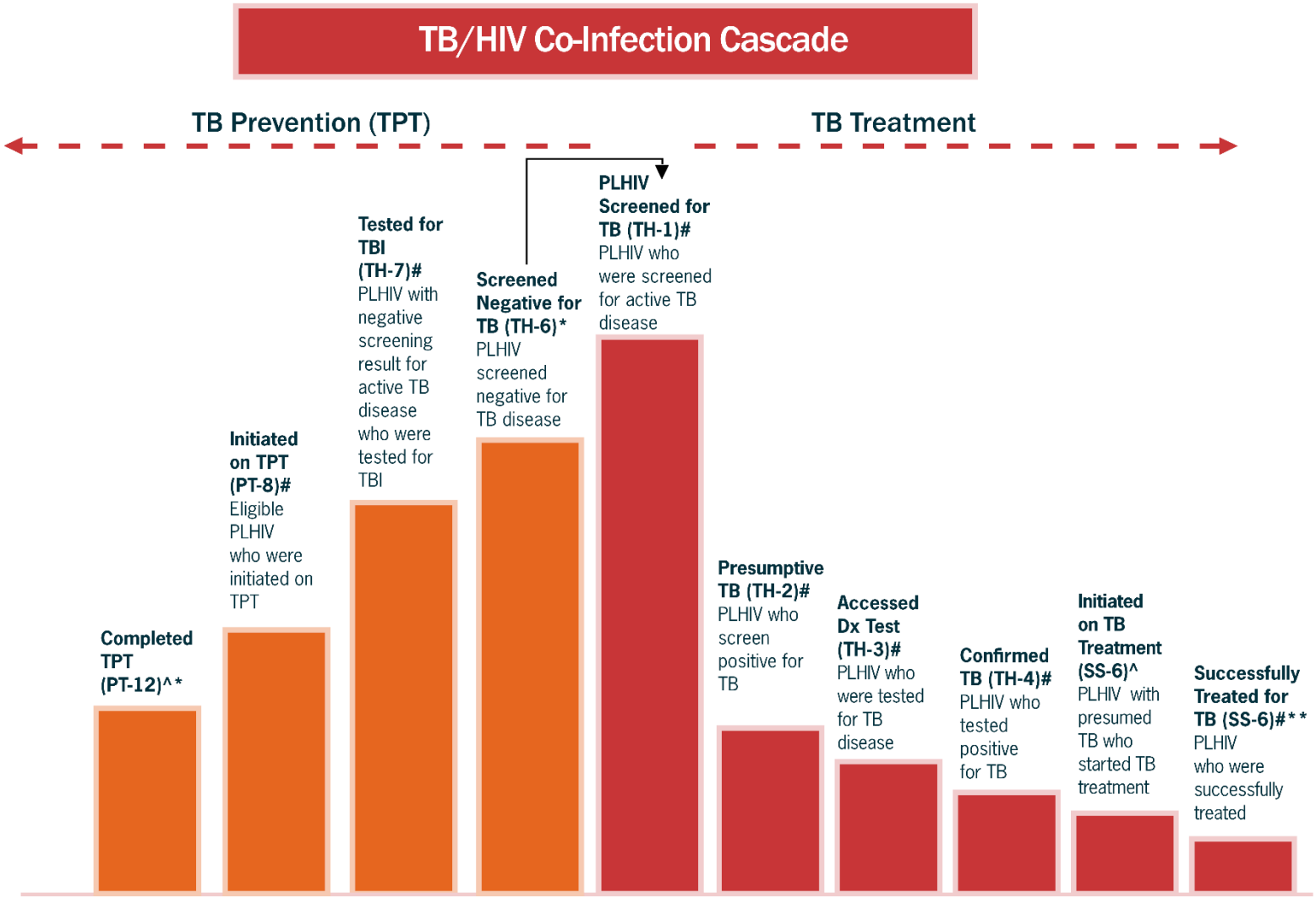
* Childhood TB counts would be a disaggregation of this indicator

\# Indicates the numerator of this indicator

^ Indicates the denominator of this indicator

$ When Dx/WRD Dx Testing is not available or is negative and suspicion remains high


HIV/TB Patient Pathway (Testing PLHIV for TB)
1 PLHIV Enrolled on ART (TH-1)^
2 Screened for TB (TH-1)#
3 Screened Negative for Active TB (TH-6)#
Tested for TBI (TH-7)#
LTFU
4 Initiated on TPT (PT-8)#
LTFU (TH-9)#
Developed Active TB Disease (TH-10)#
TPT Interrupted due to Adverse Drug Reactions (TH-11)#
LTFU
5 Completed TPT (PT-12)^
3 Presumptive TB (Screened Positive) (TH-2)#
LTFU
4 Accessed Dx Test (TH-3)#
LTFU
5 Confirmed TB (TH-4)#
LTFU
6 Initiated TB Treatment (TH-5)
Died (TH-19)#
Treatment Failure (TH-20)#
LTFU (TH-21)#
Not Evaluated (TH-22)#
LTFU
7 Successfully Treated (SS-6)

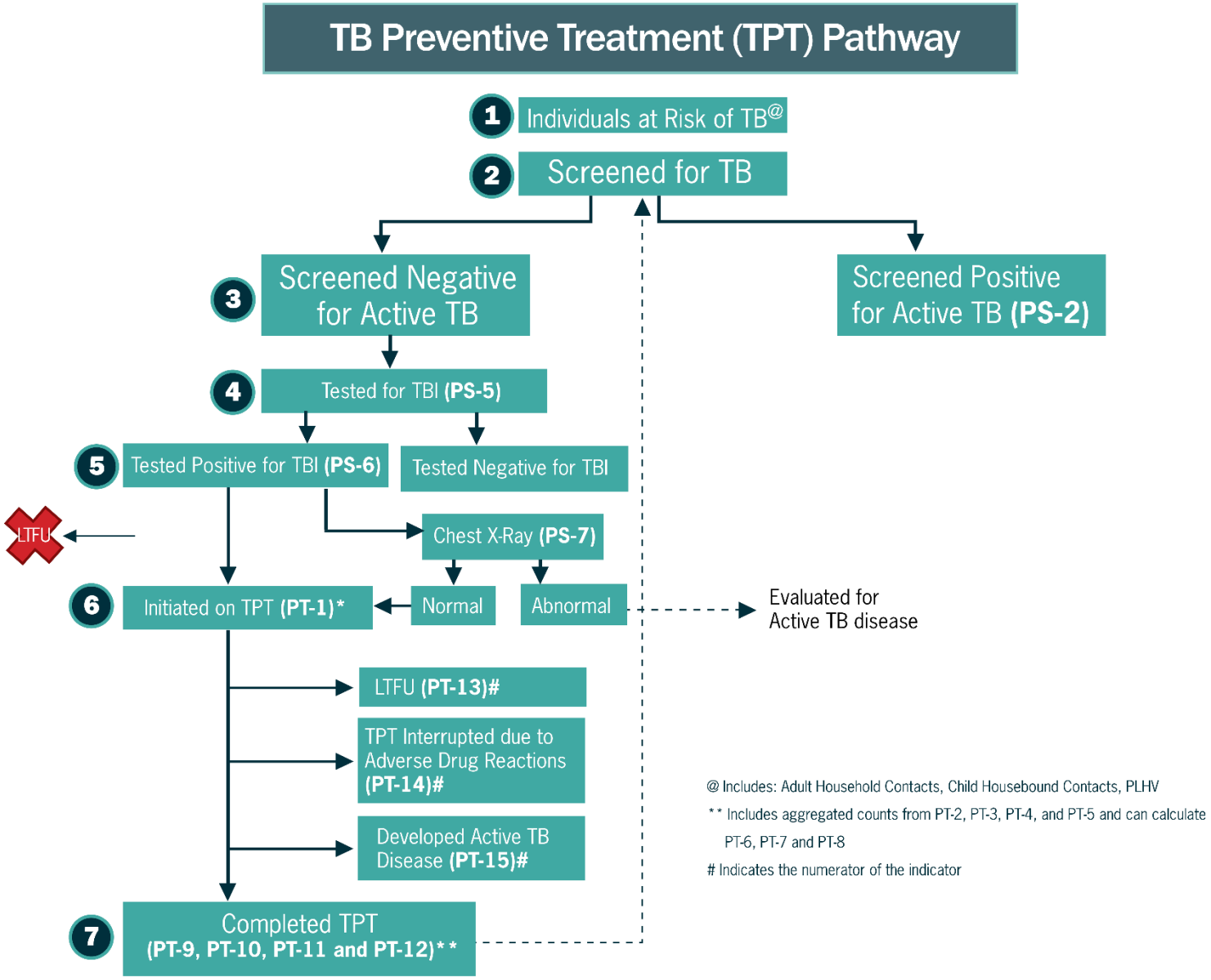


*Indicators will also capture PLHIV who did not complete TPT because of Lost to Follow-up **(TH-9)**, Developing Active TB Disease **(TH-10)**, or Interruption to TPT due to Adverse Drug Reactions **(TH-11)**

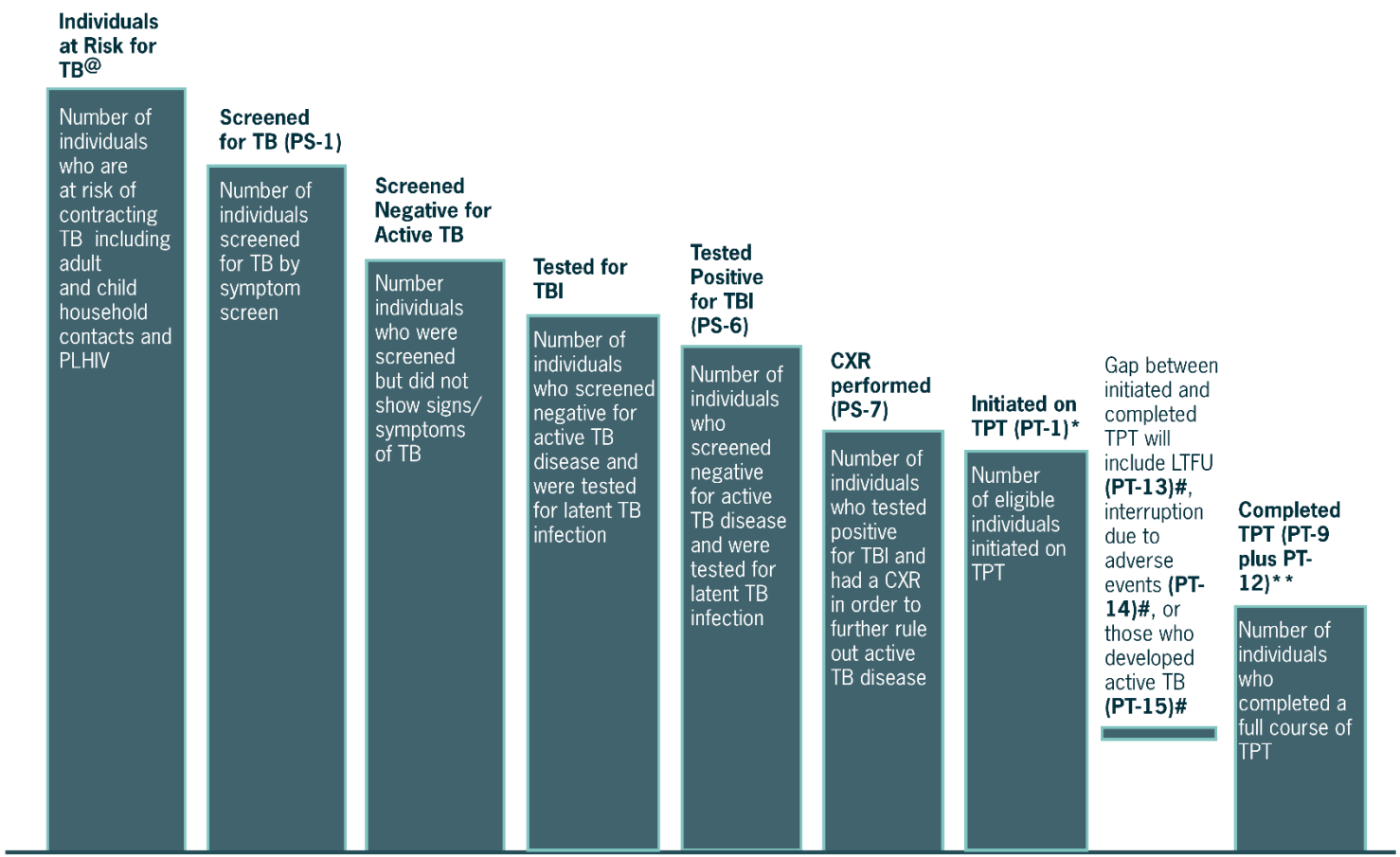
^ Indicates the denominator of this indicator

Indicators will also capture PLHIV who did not complete TB Treatment because of Death **(TH-19), Treatment Failure **(TH-20)**, Lost to Follow-up **(TH-21)** or Not Evaluated **(TH-22)**

# Indicates the numerator of this indicator


TB Preventive Treatment (TPT) Pathway
1
Individuals at Risk of TB@
2
Screened for TB
3
Screened Negative for Active TB
Screened Positive for Active TB (PS-2)
4
Tested for TBI (PS-5)
5
Tested Positive for TBI (PS-6)
Tested Negative for TBI
LTFU
Chest X-Ray (PS-7)
6
Initiated on TPT (PT-1)*
Normal
Abnormal
Evaluated for Active TB disease
LTFU (PT-13)#
TPT Interrupted due to Adverse Drug Reactions (PT-14)#
Developed Active TB Disease (PT-15)#
7
Completed TPT (PT-9, PT-10, PT-11 and PT-12)**
@ Includes: Adult Household Contacts, Child Housebound Contacts, PLHV
** Includes aggregated counts from PT-2, PT-3, PT-4, and PT-5 and can calculate PT-6, PT-7 and PT-8
# Indicates the numerator of the indicator

TB Preventive Therapy (TPT) Cascade



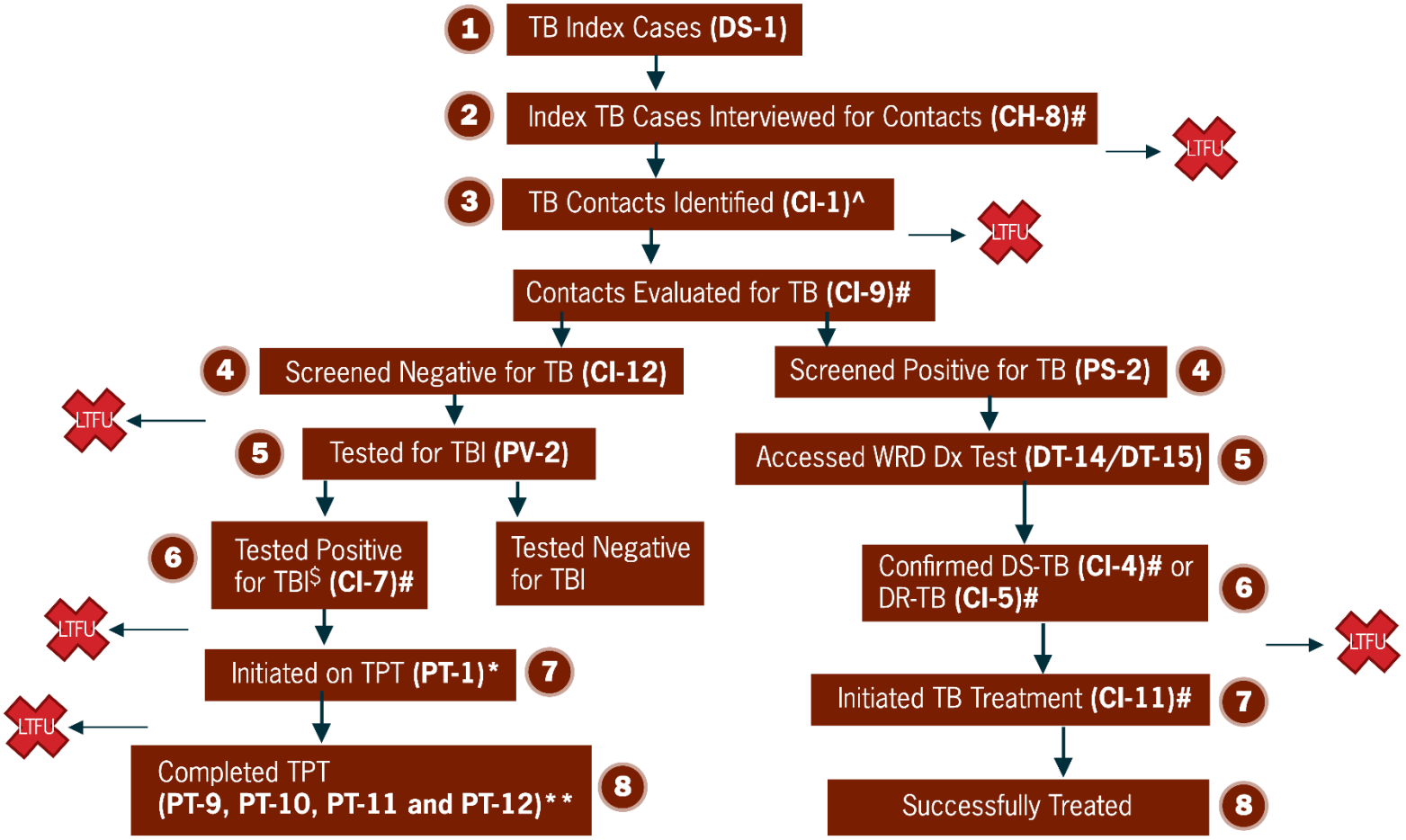
* This indicator can be disaggregated by children household contacts <5 years (PT-3), household contacts (adult and children > 5 years) (PT-4) and PLHIV (PT-5)

** PT-9 can be disaggregated by household contacts <5 years (PT-10) and adult household contacts (and contacts >5 years) (PT-11)

\# Indicates the numerator for this indicator

@ Includes Adult Household Contacts, Child Housebound Contacts, PLHIV

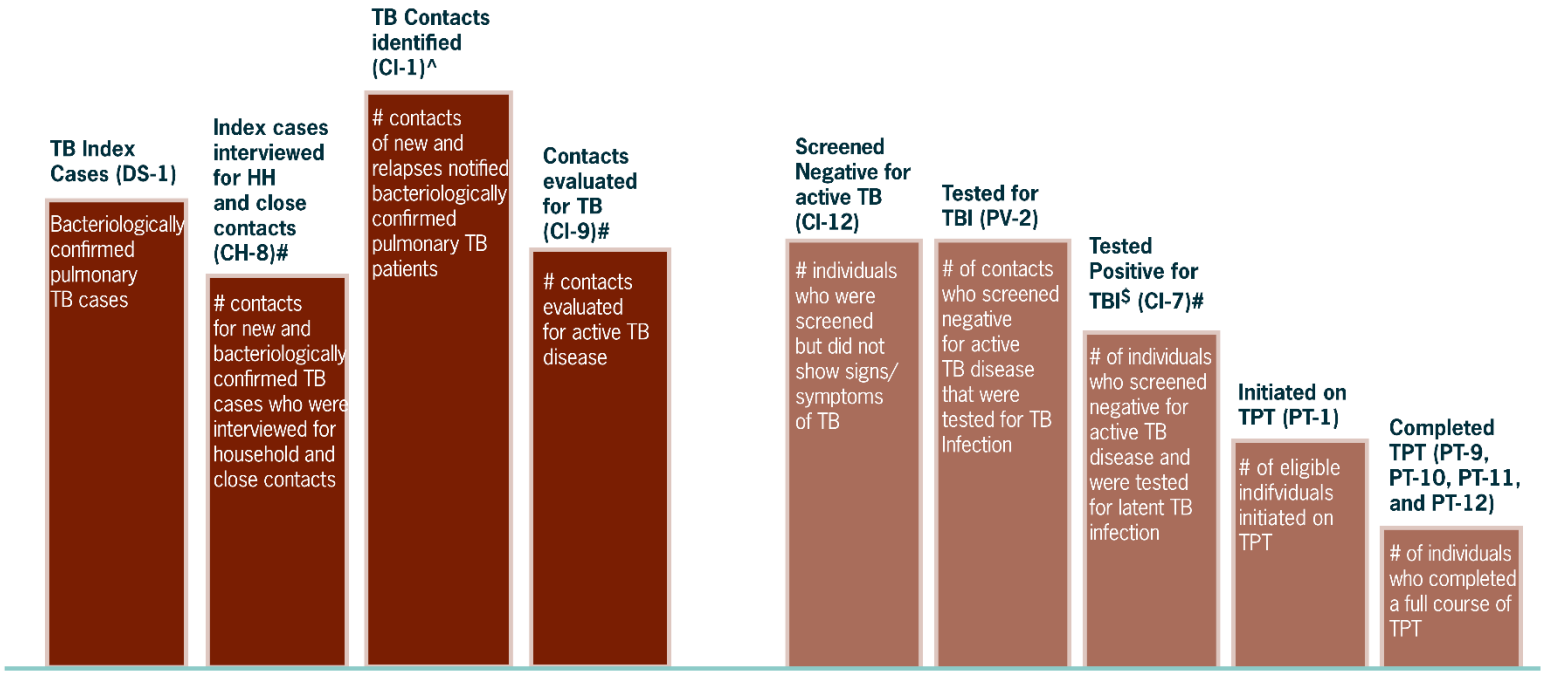
Contact Investigation (CI) Pathway



* Includes: Adult Household Contacts, Child Housebound Contacts, PLHIV
** Includes aggregated counts from PT-2, PT-3, PT-4 and PT-5 and can calculate PT-6, PT-7 and PT-8
# Indicates the numerator of this indicator
^ Indicates the denominator of this indicator
$ In some countries, those who test positive for TBI may also receive CXR to further rule out active TB in accordance with country screening guidelines

Cascade of Care for Contact Investigations

Contacts who screened Negative for Active TB

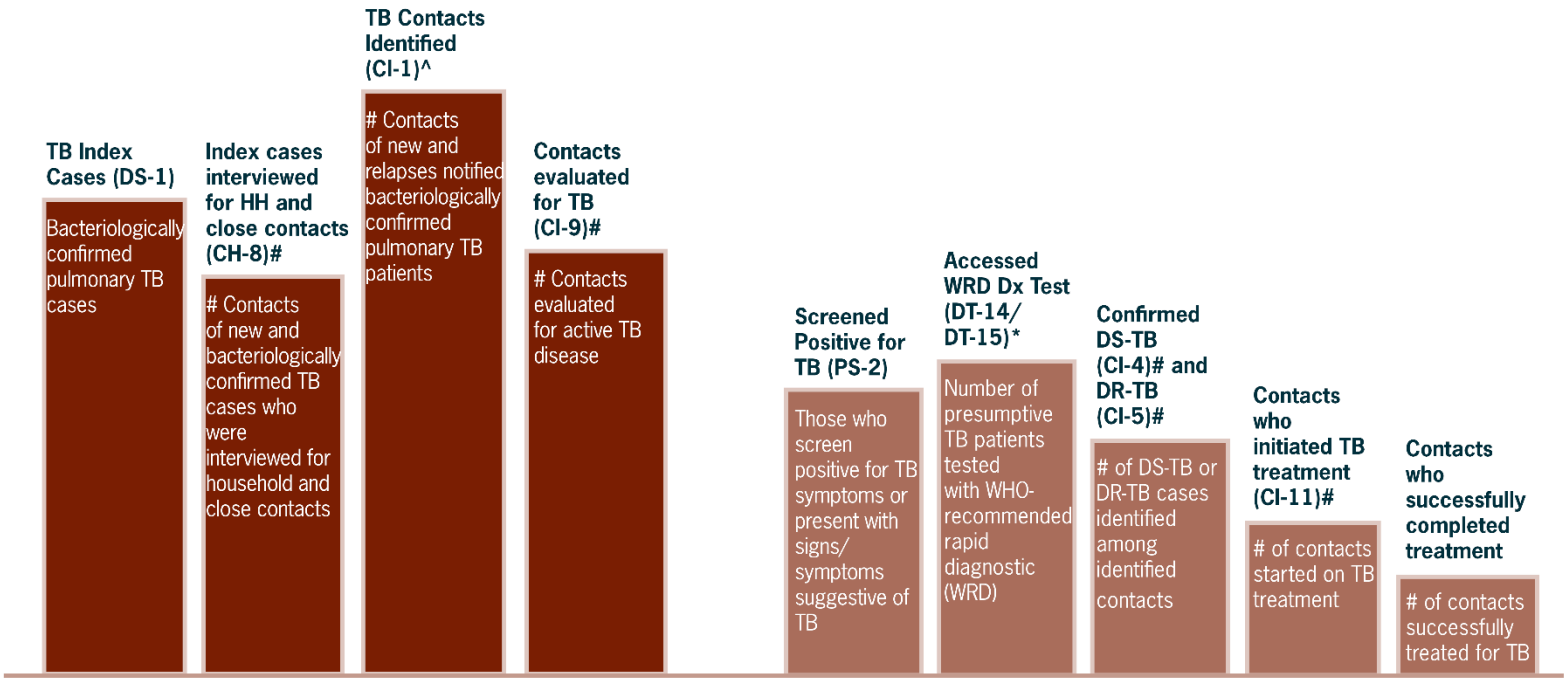


** Includes aggregated counts from PT-2, PT-3, PT-4 and PT-5 and can calculate PT-6, PT-7 and PT-8

# Indicates the numerator of this indicator

^ Indicates the denominator of this indicator

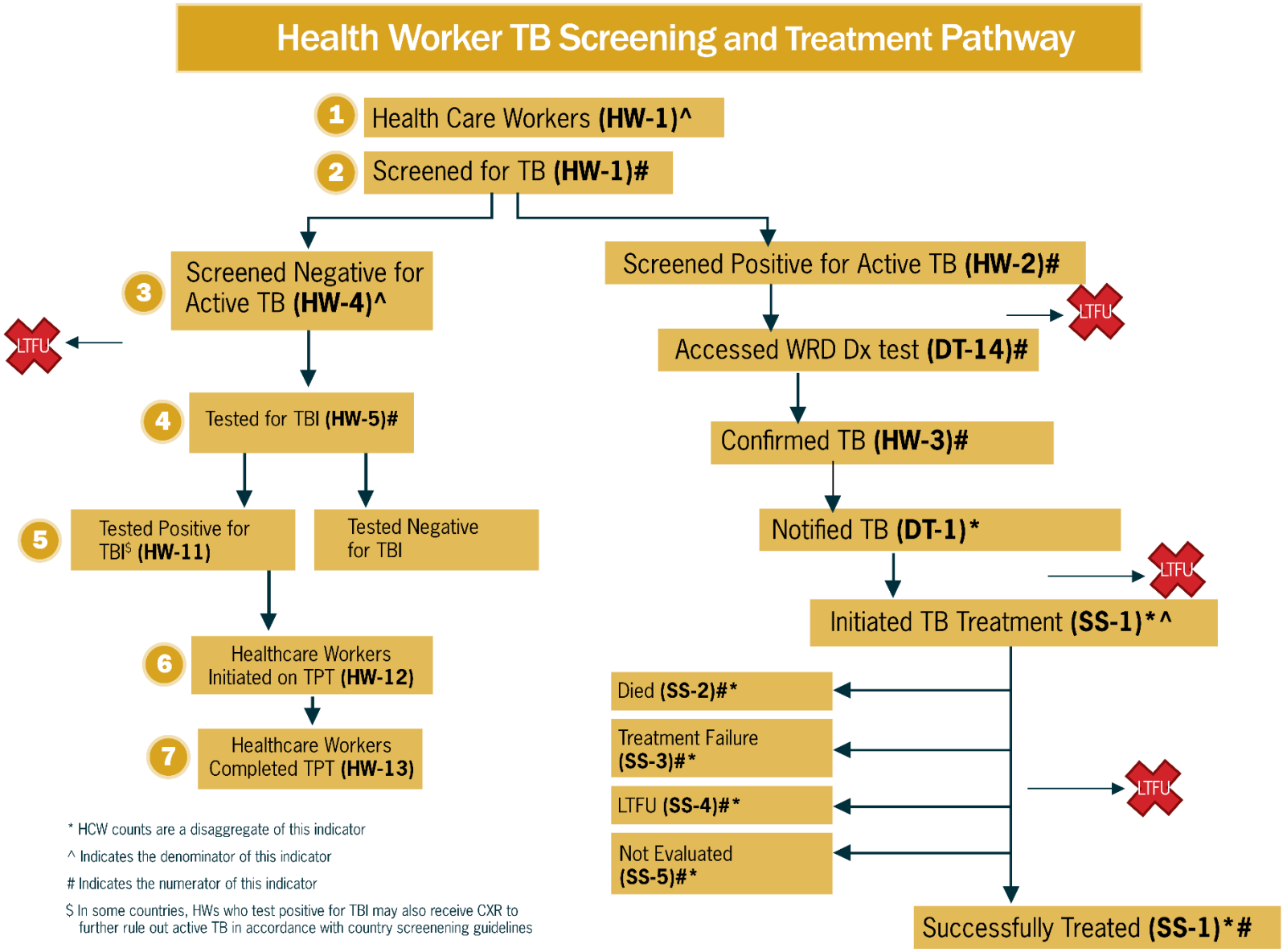
Cascade of Care for Contact Investigations
Contacts who screened Positive for Active TB



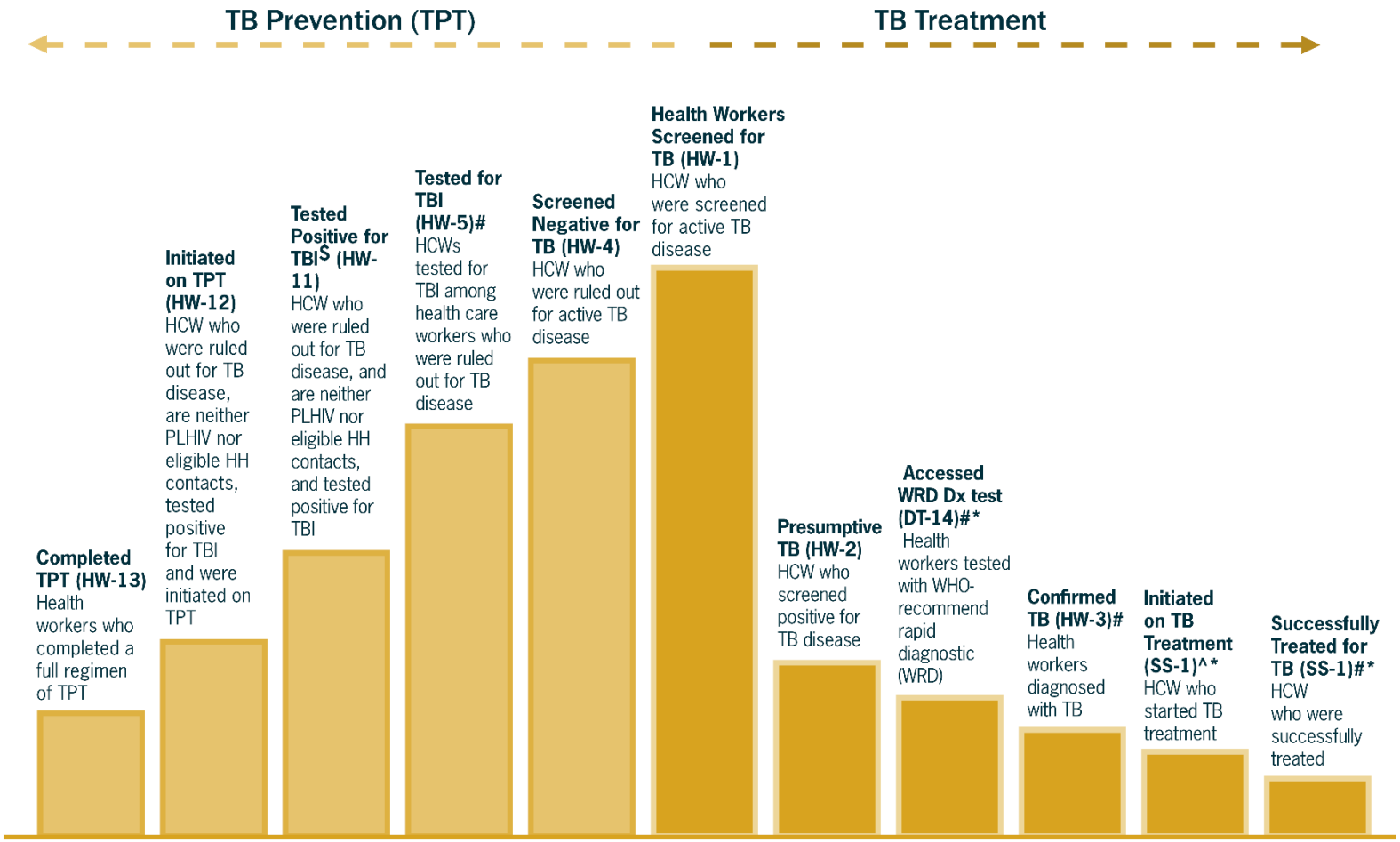
# Indicates the numerator of this indicator

^ Indicates the denominator of this indicator

* Counts are a disaggregate of this indicator


Health Worker TB Screening and Treatment Pathway
1 Health Care Workers (HW-1)^
2 Screened for TB (HW-1)#
3 Screened Negative for Active TB (HW-4)^
LTFU
4 Tested for TBI (HW-5)#
5 Tested Positive for TBI$ (HW-11)
Tested Negative for TBI
6 Healthcare Workers Initiated on TPT (HW-12)
7 Healthcare Workers Completed TPT (HW-13)
Screened Positive for Active TB (HW-2)#
LTFU
Accessed WRD Dx test (DT-14)#
Confirmed TB (HW-3)#
Notified TB (DT-1)*
LTFU
Initiated TB Treatment (SS-1)*^
Died (SS-2)#*
Treatment Failure (SS-3)#*
LTFU (SS-4)#*
Not Evaluated (SS-5)#*
LTFU
Successfully Treated (SS-1)*#
* HCW counts are a disaggregate of this indicator
^ Indicates the denominator of this indicator
# Indicates the numerator of this indicator
$ In some countries, HWs who test positive for TBI may also receive CXR to further rule out active TB in accordance with country screenening guidelines

Health Worker TB Screening Cascade



* HCW counts are a disaggregate of this indicator

^ Indicates the denominator of this indicator

# Indicates the numerator of this indicator

$ In some countries, HWs who test positive for TBI may also receive CXR to further rule out active TB in accordance with country screening guidelines

Appendix 3. Indicator Matrix for Core and Extended Indicators

Tier I: Core Indicators

Table 2. Core TB indicators

CORE INDICATORS	Ref# [15]	Name	Definition	Comments	Corresponding indicator groups
REACH Increased DS- and DR-TB case notification	DT-3	TB Detection Rate or TB Treatment Coverage	Percentage of new and, relapse tuberculosis (TB) cases and cases with unknown previous TB treatment history (all forms)—that were notified in a reporting year out of the estimated number of TB cases for that year.	Standard WHO indicator	TB Detection (includes special interest groups) (DT) Presumptive TB (PS) Active Case Finding (AF) TB/HIV (TH) *(note: TB/HIV is crosscutting under several core indicator groups)*
	DT-12	Bacteriological Diagnosis Coverage (Pulmonary TB)	Percent of new and relapse bacteriologically confirmed pulmonary TB cases among notified new and relapse pulmonary TB cases during the reporting period.	Standard WHO indicator	TB Detection (DT)
	CH-5	Childhood TB Notifications	Number of new and relapse childhood (0-14 yrs) TB cases (and childhood cases with unknown previous TB treatment history) who were notified in reporting year.	Standard WHO indicator	Childhood TB (CH)
	RN-1	Drug-Resistant TB Notifications	Number of laboratory-confirmed DR-TB cases notified during reporting year.	Standard WHO indicator	DR-TB Notification (RN)
	CI-1	Contact Investigation Coverage	Number of contacts of bacteriologically confirmed pulmonary TB patients who were evaluated for active TB and TBI, out of those eligible, expressed as a percentage.	Standard WHO indicator (new)	Contact Investigation (CI)
	PR-1	Private Sector TB Notifications	Number of new and relapse TB cases notified by private non-NTP providers in reporting year.	Standard WHO indicator	Private Sector (PR)
CURE High treatment success rate in DS- and DR-TB	SS-1	TB Treatment Success Rate	Percentage of TB cases successfully treated (cured or completed treatment) among TB cases (new and relapse) notified to the national health authorities during a specified period.	Standard WHO indicator	DS-TB Treatment Success (SS)

[15] DT: TB Detection; CH: Childhood TB; RN: Drug-Resistant TB Notification; CI: Contact Investigation; PS: Presumptive TB; PR: Private Sector; ACF: Active Case Finding; SS: Drug-Sensitive TB Treatment Success; TH: TB/HIV; RS: Drug-Resistant TB Treatment Success; PT: TB Preventive Treatment; PT: Prevention; HW: Health Care Worker Screening; SN: Sustainability

	RS-1	Drug-Resistant TB Treatment Success Rate	Percentage of DR-TB cases successfully treated (cured or completed treatment) among DR-TB cases enrolled on appropriate treatment during a specified period	Standard WHO indicator	DR-TB Treatment Success (RS)
PREVENT Prevent TB transmission & development	PT-1	TPT Coverage	Number of eligible household contacts and PLHIV enrolled on TB preventive treatment, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary TB, and (2) PLHIV enrolled in HIV care	Standard WHO indicator	TB Preventive Treatment (PT) Prevention (PV) Healthcare Worker Screening (HW)
SUSTAIN	SN-1	TB Financing from Domestic Sources	Percentage of NTP funding expected from domestic sources	Standard WHO indicator	Sustainability (SN)

Tier II: Extended Indicators

Links to Indicators in Table 3, by Technical Area

1. Active Case Finding Indicators (AF)
2. Contact Investigation Indicators (CI)
3. Presumptive TB Indicators (PS)
4. TB Detection Indicators (DT)
5. Drug-Resistant TB Notifications (RN)
6. Childhood TB (CH)
7. Private Sector Indicators (PR)
8. TB Treatment Success Indicators (SS)
9. Drug-Resistant TB Treatment Success Indicators (RS)
10. TB/HIV Indicators (TH)
11. TB Preventive Treatment Indicators (PT)
12. Prevention Indicators (PV)
13. Healthcare Worker Screening Indicators (HW)
14. Sustainability Indicators (SN)

Table 3. Comprehensive list of TB indicators

ACTIVE CASE FINDING INDICATORS (AF)

Note:

*For TPT, refer to TB Preventive Treatment Indicators (PT)
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
AF-1	Number of individuals eligible for screening	Estimated number of people in the defined risk group category during the reporting period. *Identification of target population should be based on risk groups. A risk group is any group of people in which the prevalence or incidence of TB is significantly higher than in the general population. These risk groups could be people living in urban slum areas, remote and hard-to-reach areas, PLHIV, sex workers, prisoners, military personnel, healthcare workers (HCWs), miners, etc.* *This information can be collected from census data, prevalence surveys, government statistics, special studies, etc.*	Estimated number of people in the defined risk group category during the reporting period	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
AF-2	Number of individuals screened for TB	Number of individuals who underwent a screening process/procedure to identify people with a higher likelihood of having active TB disease during the reporting period. *Examples of TB screening procedures are questionnaires about TB related symptoms and chest X-ray.* *This indicator should be disaggregated by age, sex, screening method (i.e., symptoms only or chest X-ray) and location of screening (i.e., outside health facility, at health facility).*	Number of individuals screened for TB during the reporting period	N/A	- Age - Sex - Screening method (i.e., symptoms only, CXR) - Location of screening (i.e., outside health facility, at health facility)	
AF-3	Screening coverage among risk groups	Percentage of individuals screened for TB among the estimated number of people in the defined risk group category during the reporting period. *This indicator measures how well the screening activity has reached the people it was designed to benefit.*	Number of individuals screened for TB during the reporting period (AF-2)	Estimated number of people in the defined risk group category during the reporting period (AF-1)		Calculate using indicators AF-2 divided by AF-1
AF-4	Number of presumptive TB cases identified	Number of presumptive TB cases identified during the reporting period. *Number of individuals who screened positive are considered to have suspected TB disease and are called presumptive TB cases during the reporting period; these should receive diagnostic evaluation.*	Number of presumptive TB cases identified during the reporting period	N/A	Age, sex	Additional information can be collected on: Number offered TB testing This indicator is analogous to indicator PS-2

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
AF-5	Number of presumptive TB cases tested for TB	Number of individuals who screened positive (i.e., presumptive TB cases) and received a diagnostic evaluation (which is used to confirm active TB disease) during the reporting period. *Diagnostic evaluations generally include diagnostic tests for active TB disease such as WHO-recommended rapid diagnostic (WRD) molecular assays (e.g., Xpert MTB/RIF).*	Number of presumptive TB cases tested for TB during the reporting period	N/A	Type of test (i.e., smear, Xpert, culture, etc.)	Additional information can be collected on: Number who submitted specimen Number of specimens sent to the lab Number with results reported
AF-6	Number of presumptive TB cases with confirmed TB	Number of presumptive TB cases who received a diagnostic evaluation and were tested/diagnosed positive for TB disease (i.e., diagnosed with active TB disease) during the reporting period.	Number of presumptive TB cases who received a diagnostic evaluation and were tested/diagnosed positive for TB disease (i.e., diagnosed with active TB disease) during the reporting period	N/A	Age, sex	Additional information can be collected on: Number of presumptive TB patients with results reported back to individuals
AF-7	Number needed to screen to find one TB case	The number needed to screen is the number of individuals that must be screened to identify one person with TB during the reporting period.	Number of individuals screened for TB during the reporting period (AF-2)	Number of presumptive TB cases with confirmed TB during the reporting period (AF-6)		Calculated using indicator AF-2 divided by AF-6
AF-8	Number needed to test to find one TB case	The number needed to test is the number of individuals that must undergo a diagnostic evaluation to identify one person with TB during the reporting period.	Number of presumptive TB cases tested for TB during the reporting period (AF-5)	Number of presumptive TB cases with confirmed TB during the reporting period (AF-6)		Calculate using indicator AF-5 divided by AF-6
AF-9	Number with confirmed TB starting appropriate treatment	Number of individuals who were diagnosed with active TB disease (from previous step) and were started on appropriate TB treatment during the reporting period.	Number with confirmed TB starting appropriate treatment during the reporting period	N/A	Age, sex	Additional information can be collected on: Number of confirmed TB starting treatment at a location other than the facility linked to the screening effort

EXAMPLE OF ACTIVE CASE FINDING MONITORING

	ACF (Systematic Screening)		AF-1	AF-2	AF-3	AF-4	AF-5	AF-6	AF-7	AF-8	AF-9
	Potential site of screening	Risk Group	Number of individuals eligible for screening	Number of individuals screened for TB	Screening Coverage (# 2 / # 1)	Number of presumptive TB cases identified	Number of presumptive TB cases tested for TB	Number of presumptive TB cases with confirmed TB	Number Needed to Screen (NNS) to find one TB case (# 2 / # 6)	Number Needed to Test (NNT) to find one TB case (# 5 / # 6)	Number with confirmed TB starting appropriate treatment
A	Community	(e.g. slum, homeless, nomadic, sex worker, etc.)	187,000	156,000	83%	122,000	112,000	854	183	131	848
B	Health Care Facilities	(e.g. PLHIV, DM, elderly, mentally ill, etc.)									
C	Congregate institutions	(e.g. prisoners, military, etc.)	4,000	3,850	96%	2,200	1,750	8	481	219	7
D	Immigration and refugee	(e.g. immigrants, people in refugee camps, etc.)									
E	Workplaces	(e.g. HCWs, miners, silica workers, etc.)									
		Total	**191,000**	**159,850**	84%	**124,200**	**113,750**	**862**	**185**	**132**	**855**
		Disaggregation by	risk groups	age, sex		age, sex	test type	age, sex			age, sex

A. Community	Cascade Performance
Screening Coverage (AF-2/AF-1)	**83%**
Testing Enrollment (AF-5/AF-4)	**92%**
Treatment Enrollment (AF-9/AF-6)	**99%**

CONTACT INVESTIGATION INDICATORS (CI)

Note:

*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators
*DR-TB includes RR-TB/MDR-TB and extensively drug-resistant (XDR)-TB

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
CI-1	Contact Investigation Coverage	Number of contacts of bacteriologically confirmed pulmonary TB patients who were evaluated for active TB and TB infection, out of those eligible, during the reporting year, expressed as a percentage.	Number of contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients who were evaluated for active TB disease and TBI during the reporting period *WHO Database: newinc_con_screen*	Total number of contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients during the reporting period *WHO Database: newinc_con*		
CI-2	Estimated average number of household contacts identified per one notified new and relapse bacteriologically confirmed pulmonary TB case	Estimated average number of household contacts identified per one notified new and relapse bacteriologically confirmed pulmonary TB case.	Estimated average number of household contacts identified per one notified new and relapse bacteriologically confirmed pulmonary TB case	N/A		Estimated average household size reported in WHO database can be used as a proxy: *e_hh_size*
CI-3	Percent of contacts evaluated for TB disease	Percentage of contacts of bacteriologically confirmed notified pulmonary TB patients who were evaluated for TB disease during the reporting period, among all contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients during the reporting period.	Number of contacts of bacteriologically confirmed notified pulmonary TB patients who were evaluated for TB disease during the reporting period	Total number of contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients during the reporting period	By age (<5 and >5) and use respective denominator whenever applicable	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
CI-4	Percent of contacts detected with TB disease	Percentage of TB cases identified (both bacteriologically and clinically) among contacts during the reporting period, out of total number of evaluated contacts of new and relapse notified bacteriologically confirmed pulmonary TB patients during the reporting period.	Number of TB cases identified (both bacteriologically and clinically) among evaluated contacts during the reporting period	Number of contacts of bacteriologically confirmed notified pulmonary TB who were evaluated for TB disease during the reporting period	By age (<5 and >5) and use respective denominator whenever applicable By DS-TB and DR-TB	
CI-5	Percent of contacts detected with DR-TB disease, through contact investigation of DR-TB index case	Percentage of DR-TB cases identified among evaluated contacts of DR-TB index cases during the reporting period.	Number of DR-TB cases identified among the evaluated contacts of DR-TB index cases during the reporting period	Number of contacts of DR-TB who were evaluated for TB and DR-TB disease during the reporting period	By age (<5 and >5) and use respective denominator whenever applicable By bacteriologically and clinically confirmed	
CI-6	Percent of contacts detected with DS-TB disease through contact investigation of DR-TB index case	Percentage of DS-TB cases identified among evaluated contacts of DR-TB index cases, during the reporting period.	Number of DS-TB cases identified among the evaluated contacts of DR-TB index cases during the reporting period	Number of contacts of DR-TB who were evaluated for TB and DR-TB disease during the reporting period	By age (<5 and >5) and use respective denominator whenever applicable By bacteriologically and clinically confirmed	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
PV-2	Number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TBI (and/or tested for TBI) according to national screening protocols during the specified reporting period	Total number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TBI according to national screening protocols during the specified reporting period. *Every contact will first be assessed for active TB as per national protocols; once active TB has been ruled out, assessment for TBI becomes relevant. This indicator is calculated as "total number of contacts screened" minus "the number of contacts who were diagnosed with TB" (TBI screening protocols may vary by country; some countries may screen using a screening test such as tuberculin skin test (TST) or interferon-gamma release assay [IGRA]).*	Number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TBI according to national screening protocols during the specified reporting period	N/A	If testing was used, disaggregate by type: TST, IGRA, or both	
CI-7	Percent of close contacts who tested positive for TBI	Percentage of contacts who were ruled out for TB disease and tested positive for TBI among eligible contacts during the reporting period.	Number of contacts who were ruled out for TB disease and tested positive for TBI during the reporting period	Total number of eligible contacts who were ruled out for TB disease and were tested for TBI (using TST, IGRA, or both) during the reporting period	By test type: TST, IGRA, or both	
Additional Process/Quality Indicators (Programmatic levels of Contact Investigation)[16]						
CI-8	Percent of eligible index cases with contact investigations conducted	Number of eligible index cases with contact investigations among all index cases eligible for contact investigation during the reporting period.	Number of eligible index cases receiving contact investigation during the reporting period	Number of index cases eligible for contact investigation during the reporting period		
CI-9	Percent of identified contacts investigated	Number of contacts investigated among all contact identified during the reporting period.	Number of contacts investigated during the reporting period	Number of contacts identified during the reporting period		

[16] This group of indicators may seem duplicative of the previous groups but are specifically tailored to measure programmatic levels of CI.

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
CI-10	Percent of referred contacts who completed evaluation	Number of referred contacts who completed evaluation among all contacts referred for evaluation during the reporting period.	Number of referred contacts who completed evaluation during the reporting period	Number of contacts referred for evaluation during the reporting period		
CI-11	Percent of contacts diagnosed with TB disease and started on treatment	Number of contacts who started TB treatment among all contacts diagnosed with TB disease during the reporting period.	Number of contacts who started TB treatment during the reporting period	Number of contacts diagnosed with TB disease during the reporting period	By DS-TB and DR-TB	
CI-12	Contacts screened negative for TB	Number of bacteriologically confirmed TB patient contacts who had a negative result when screened for TB disease during the reporting period.	Number of bacteriologically confirmed TB patient contacts who had a negative result when screened for TB disease during the reporting period			

PRESUMPTIVE TB INDICATORS (PS)

Note:
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PS-1	Number of individuals screened for TB at healthcare facilities	Number of individuals screened for TB disease at healthcare facilities during the reporting period. *If screening registers are not available at health facilities and the national policy calls for TB screening at all health facilities, a proxy measure can be the total number of individuals who visited hospitals and health facilities during the reporting period (assuming that they were screened for TB disease).*	Number of individuals screened for TB disease at health facilities during the reporting period	N/A	By type of health facility	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PV-1	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person according to national screening protocols during the specified reporting period	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period. *"Outside health facility" refers to TB screening activities in the community, including in and outside home settings (e.g., as part of contact investigation), routine outreach, and event-based screening carried out by community health workers or any other trained/qualified health personnel.* *"Screening" is defined at a minimum as verbal screening (for signs and symptoms) to identify symptomatic individuals that are then referred for further clinical evaluation or testing for TB disease. It also includes screening or assessment for TB infection combined with or without testing for TB infection by tuberculin skin test (TST) or interferon-gamma release assay (IGRA).*	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period	N/A	TB disease and TBI	
PS-2	Number of presumptive TB patients identified	Number of individuals screened positive for TB disease during the reporting period.	Number of individuals screened positive for TB disease during the reporting period	N/A		This indicator is analogous to indicator AF-4
PS-3	Number of presumptive TB patients with completed evaluation for TB disease	Number of presumptive TB patients with completed evaluation for TB disease during the reporting period. *"Completed evaluation" will be defined by country guidelines; for example, screened for TB symptoms, previous Hx of TB, tested by specimen or CXR, etc.*	Number of presumptive TB patients with completed evaluation for TB disease during the reporting period	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PS-4	Number of presumptive TB patients diagnosed with TB disease	Number of presumptive TB patients diagnosed with TB disease during the reporting period.	Number of presumptive TB patients diagnosed with TB disease during the reporting period	N/A		
PS-5	Number of presumptive TB patients who were ruled out for TB disease and tested for TBI	Number of presumptive TB patients who were ruled out for TB disease and tested for TBI during the reporting period (TBI testing includes TST, IGRA, or both).	Number of presumptive TB patients who were ruled out for TB disease and tested for TBI during the reporting period (TBI testing includes TST, IGRA, or both)	N/A		
PS-6	Presumptive TB patients tested positive for TBI	Number of presumptive TB patients who were ruled out for TB disease and tested positive for TB infection during the reporting period.	Number of presumptive TB patients who were ruled out for TB disease and tested positive for TB infection during the reporting period	N/A		
PS-7	Presumptive TB patients with chest X-ray (CXR) performed	Number of presumptive TB patients testing positive for TBI who accessed a CXR to further rule out active TB disease during the reporting period.	Number of presumptive TB patients testing positive for TBI who accessed a CXR to further rule out active TB disease during the reporting period	N/A		
PS-8	Number of health facilities reporting on number of presumptive TB patients during the reporting period	Number of health facilities reporting on number of presumptive TB patients during the reporting period.	Number of health facilities reporting on number of presumptive TB patients during the reporting period	N/A		

TB DETECTION INDICATORS (DT)

Note:
*All forms is defined as bacteriologically confirmed or clinically diagnosed, pulmonary or extra pulmonary
*WHO-recommended rapid diagnostic (WRD) tests are used to employ molecular techniques to detect TB. These are currently Xpert MTB/RIF (including Ultra) and TB-LAMP
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators
*DR-TB includes RR-TB/MDR-TB and XDR

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-1	TB case notifications	Number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) notified during the reporting period.	Number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) notified during reporting period *WHO database: c_newinc*	N/A	Age, gender, private/ public (below)	Standard WHO indicator
DT-2	TB case notification rate (CNR)	Number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) notified during the reporting period per 100,000 population. Calculation: (Numerator/Denominator) x 100,000	Number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) notified during the reporting period *WHO database: c_newinc*	Number of persons (estimated population) in the same reporting period		Standard WHO indicator
DT-3	TB Case Detection	Percentage of new and relapse TB cases and cases with unknown previous TB treatment history (all forms)—that were notified in a reporting year out of the estimated number of TB cases for that year.	Number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) that were notified in the reporting period. *WHO database: c_newinc*	Estimated number of incident TB cases (all forms) in the reporting period *WHO database: e_inc_num*		Standard WHO indicator

[17] DT: TB Detection; CH: Childhood TB; RN: Drug-Resistant TB Notification; CI: Contact Investigation; PS: Presumptive TB; PR: Private Sector; ACF: Active Case Finding; SS: Drug-Sensitive TB Treatment Success; TH: TB/HIV; RS: Drug-Resistant TB Treatment Success; TPT: TB Preventive Treatment; PT: Prevention; HW: Health Care Worker Screening; SN: Sustainability

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PR-1	Private sector TB notifications	Number of new and relapse TB cases, all forms, (bacteriologically confirmed or clinically diagnosed) notified by private non-NTP providers in reporting period. *Per WHO's definition/database, private non-NTP providers include private individual and institutional providers, corporate/business sector providers, mission hospitals, and other clinics/hospital managed by nongovernmental organizations (NGOs) and faith-based organizations.*	Number of new and relapse TB cases, all forms, (bacteriologically confirmed or clinically diagnosed) notified by private non-NTP program providers in reporting period *WHO database: priv_new_dx*	N/A		Standard WHO indicator
RN-1	DR-TB notifications	Number of laboratory-confirmed DR-TB cases notified during the reporting period.	Number of laboratory-confirmed DR-TB cases notified during reporting period *WHO database: conf_rrmdr* plus *all_conf_xdr*	N/A	Age (0-14; 15 and older), gender	Standard WHO indicator
RN-2	DR-TB case detection	Percent of laboratory-confirmed DR-TB cases notified during reporting year, out of the estimated number of incident DR-TB (RR/MDR and XDR) cases in reporting period.	Number of laboratory-confirmed DR-TB cases notified during reporting period *WHO database: conf_rrmdr* plus *all_conf_xdr*	Estimated incidence of rifampicin-resistant TB during the reporting period *WHO database: e_inc_rr_num*		Standard WHO indicator
CH-5	Childhood TB notification	Number of new and relapse childhood TB cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, who were notified in reporting period.	Number of new and relapse childhood TB cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, who were notified in reporting period *WHO database: newrel_f014* plus *newrel_m014* plus *newrel_sexunk014*	N/A		Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-8	Childhood TB (0-4) notifications	Number of new and relapse childhood (ages 0-4 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period.	Number of new and relapse childhood (ages 0-4 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_f04* plus *newrel_m04* plus *newrel_sexunk04*	N/A		Standard WHO indicator
CH-9	Childhood TB (5-14) notifications	Number of new and relapse childhood (ages 5-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period.	Number of new and relapse childhood (5-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_f514* plus *newrel_m514* plus *newrel_sexunk514*	N/A		Standard WHO indicator
DT-4	Percent of extrapulmonary TB cases notified	Percentage of extrapulmonary TB cases (new and relapse, bacteriologically confirmed or clinically diagnosed) notified during the reporting period among all TB cases, new and relapse, notified during a specified period.	Number of extrapulmonary TB cases (new and relapse, bacteriologically confirmed or clinically diagnosed) notified during the reporting period *WHO database: new_ep* plus *ret_rel_ep*	Total of new and relapse TB cases and cases with unknown previous TB treatment history during the reporting period *WHO database: c_newinc*		Standard WHO indicator
DT-5	Number of notified extrapulmonary TB (new and relapse) bacteriologically confirmed	Number of extrapulmonary TB (new and relapse) bacteriologically confirmed notified during the reporting period.	Number of extrapulmonary TB (new and relapse) bacteriologically confirmed notified during the reporting period	N/A		

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-6	Number of notified extrapulmonary TB (new and relapse) clinically diagnosed	Number of extrapulmonary TB (new and relapse) clinically diagnosed notified during a reporting period.	Number of extrapulmonary TB (new and relapse) clinically diagnosed notified during the reporting period	N/A		
DT-7	Number of facilities reporting extrapulmonary TB cases	Number of facilities reporting extrapulmonary TB cases during the reporting period.	Number of facilities reporting extrapulmonary TB cases during the reporting period	N/A		
TH-14	Percent of TB patients recorded as HIV-positive	Percentage of new and relapse TB patients recorded as HIV-positive, among all new and relapse TB patients (all forms) with known HIV-status notified during the reporting period.	Number of new and relapse TB patients recorded as HIV-positive during the reporting period *WHO database: newrel_hivpos*	Number of new and relapse TB patients notified during the reporting period who were tested for HIV at the time of diagnosis or with known HIV status at the time of TB diagnosis *WHO database: newrel_hivtest*	Age, gender, setting (public, private)	Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Screening						
PV-1	Number of individuals screened for TB disease and TBI outside of health facilities	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period. *"Outside health facility" refers to TB screening activities in the community, including in and outside home settings (e.g., as part of contact investigation), routine outreach, and event-based screening carried out by community health workers or any other trained/qualified health personnel.* *"Screening" is defined at a minimum as verbal screening (for signs and symptoms) to identify symptomatic individuals that are then referred for further clinical evaluation or testing for TB disease. It also includes screening or assessment for TB infection combined with or without testing for TB infection TST or IGRA.*	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period	N/A		

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-8	Percent of total cases notified that were referred or diagnosed via community-based approaches (outside of health facilities) in the Basic Management Units with data on referrals by community health workers	Percent of new and relapse notified TB cases referred by community health workers/community volunteers in the Basic Management Units with data on referrals by community health workers, out of all new and relapse TB cases notified in those Basic Management Units during the reporting period.	Number of new and relapse TB cases referred by community health workers/community volunteers in the Basic Management Units with data on referrals by community health workers during the reporting period *WHO database: notified_ref_community*	Number of new and relapse TB cases notified in the Basic Management Units with data on referrals by community health workers during the reporting period *WHO database: notified_ref*		Standard WHO indicator
DT-9	Percent of prisons conducting regular screening for TB according to national policy	Percentage of prisons conducting screening for TB according to national policy among the number of prisons during the reporting period.	Number of prisons conducting screening for TB according to national policy during the reporting period	Number of prisons during the reporting period		Special groups
DT-10	Percent of prisons conducting screening for TB with chest X-ray	Percentage of prisons conducting screening for TB with chest X-ray among all prisons during the reporting period.	Number of prisons conducting screening for TB with chest X-ray during the reporting period	Number of prisons during the reporting period		Special groups
DT-11	Percent of health facilities implementing intensified case finding (i.e., using standard of practice)	Percentage of health facilities implementing intensified case finding during the reporting period, among all health facilities during the reporting period.	Number of health facilities implementing intensified case finding during the reporting period	Number of health facilities during the reporting period		Special groups

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Diagnostics						
DT-12	Bacteriological Diagnosis Coverage (Pulmonary TB)	Percentage of new and relapse bacteriologically confirmed pulmonary TB cases (smear positive or culture positive or positive by WHO-recommended rapid diagnostics test) among notified new and relapse pulmonary TB cases during reporting period.	Number of new and relapse bacteriologically confirmed pulmonary TB cases (smear positive or culture positive or positive by WHO-recommended rapid diagnostics test) during the reporting period *WHO database*: *new_labconf* plus *ret_rel_labconf*	Number of notified new and relapse pulmonary TB cases during the reporting period *WHO database: new_clindx* plus *ret_rel_clindx* plus *new_labconf* plus *ret_rel_labconf*		Standard WHO indicator
DT-13	Percent of WHO-recommended rapid diagnostic (WRD) testing sites that are included in a quality assurance program	Percentage of sites providing WRD testing that are included in a quality assurance program covered during the reporting period, among all sites providing WRD during same reporting period.	Number of sites providing WRD testing that are included in a quality assurance program during the reporting period	Number of sites providing WHO-recommended rapid diagnostic testing during the reporting period		Standard WHO indicator This indicator excludes microscopy sites and looking only at how many WRD sites are conducting quality assurance
DT-14	Rapid diagnostic testing coverage	Percentage of presumptive TB patients tested with WRD during the reporting period.	Number of presumptive TB patients tested with WRD during the reporting period	Number of presumptive TB patients during the reporting period		

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-15	Rapid diagnostic testing of new and relapse TB cases	Number of new and relapse TB cases notified and tested using a WHO-recommended rapid diagnostic (for example, Xpert MTB/RIF) at the time of TB diagnosis (regardless of test result).	Number of new and relapse TB cases notified and tested using a WHO-recommended rapid diagnostic (for example, Xpert MTB/RIF) at the time of TB diagnosis (regardless of test result) *WHO database: newinc_rdx*	N/A		Standard WHO indicator
First-Line Drug (FLD) Testing: Rifampicin Testing						
DT-16	TB patients with test results for rifampicin	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin.	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin *WHO database: r_rlt_new*	N/A		Standard WHO indicator
DT-17	TB patients with resistance to rifampicin (RR-TB)	Number of new bacteriologically confirmed pulmonary TB patients with resistance to rifampicin (RR-TB).	Number of new bacteriologically confirmed pulmonary TB patients with resistance to rifampicin (RR-TB) *WHO database: rr_new*	N/A		Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-18	Percent of new TB patients with rifampicin monoresistance	Number of patients with resistance to rifampicin only, out of total number of new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as percentage.	Number of patients with rifampicin monoresistance (resistance to rifampicin only) *WHO database: rr_new* minus *mdr_new* .	Number of new bacteriologically confirmed pulmonary TB patients with available drug susceptibility testing results for isoniazid and rifampicin[18] *WHO: database dst_rlt_new*		Standard WHO indicator
DT-19	Percent of rifampicin monoresistance (previously treated including relapse)	Number of patients with resistance to rifampicin only, out of total number of previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as a percentage.	Number of patients (previously treated including relapse) with rifampicin monoresistance (resistance to rifampicin only) *WHO database: rr_ret minus mdr_ret*	Number of previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: dst_rlt_ret*		Standard WHO indicator

[18] As a constructed numerator from existing WHO variables, the number that would result might include those who are resistant to rifampicin but do not have susceptibility test results for INH. Therefore, it is recommended to examine this number in conjunction with the number of TB patients with susceptibility test results for Rifampicin only , and those with results for both Rifampicin and INH.

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-20	Percent of rifampicin monoresistance (new and previously treated including relapse)	Number of patients with resistance to Rifampicin only, out of total number of new and previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as percentage.	Number of patients (new and previously treated including relapse) with rifampicin monoresistance (resistance to rifampicin only) *WHO database: [rr_new* plus rr_ret*]* minus *[mdr_new* plus *mdr_ret]*	Number of new and previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: [dst_rlt_new* plus *dst_rlt_ret]*		Standard WHO indicator
FLD Testing: Isoniazid Testing						
DT-21	TB patients with available DST results for isoniazid and rifampicin	Number of new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin.	Number of new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: dst_rlt_new*	N/A		Standard WHO indicator
DT-22	TB patients with test results for rifampicin and isoniazid and with resistance to isoniazid	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin and isoniazid and with resistance to isoniazid (regardless of result for rifampicin).	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin and isoniazid and with resistance to isoniazid (regardless of result for rifampicin) *WHO database: dst_rlt_hr_new*	N/A		Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-23	TB patients with test results for rifampicin and isoniazid and with resistance to rifampicin	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin and isoniazid and with resistance to rifampicin (regardless of result for isoniazid).	Number of new bacteriologically confirmed pulmonary TB patients with test results for rifampicin and isoniazid and with resistance to rifampicin (regardless of result for isoniazid) *WHO database: dst_rlt_rr_new*	N/A		Standard WHO indicator
DT-24	TB patients with resistance to both isoniazid and rifampicin (DR-TB)	Number of patients with resistance to both isoniazid and rifampicin (DR-TB), among new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin.	Number of patients with resistance to both isoniazid and rifampicin (DR-TB), among new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: mdr_new*	N/A		Standard WHO indicator
DT-25	Percent of new TB patients with INH monoresistance	Number of patients with resistance to isoniazid only, out of total number of new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as percentage.	Number of patients with INH monoresistance (resistance to isoniazid only) *WHO database: dst_rlt_hr_new* minus *mdr_new*	Number of new bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO: database dst_rlt_new*		Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-26	Percent of INH monoresistance (previously treated including relapse)	Number of patients with resistance to isoniazid only, out of total number of previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as a percentage.	Number of patients (previously treated including relapse) with INH monoresistance (resistance to isoniazid only) *WHO database: dst_rlt_hr_ret minus mdr_ret*	Number of previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: dst_rlt_ret*		Standard WHO indicator
DT-27	Percent of total INH monoresistance (new and previously treated including relapse)	Number of patients with resistance to isoniazid only, out of total number of new and previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin, expressed as percentage.	Number of patients (new and previously treated including relapse) with INH monoresistance (resistance to isoniazid only) *WHO database: [dst_rlt_hr_new* plus *dst_rlt_hr_ret]* minus *[mdr_new* plus *mdr_ret]*	Number of new and previously treated (including relapse) bacteriologically confirmed pulmonary TB patients with available drug-susceptibility testing results for isoniazid and rifampicin *WHO database: [dst_rlt_new* plus *dst_rlt_ret]*		Standard WHO indicator

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Second-Line Drug (SLD) Testing: Fluoroquinolone Testing						
RN-3	Percent of notified RR-TB/MDR-TB cases with DST results for SLD for TB	Percentage of laboratory-confirmed pulmonary RR-TB/MDR-TB cases tested for susceptibility to second-line drugs (fluoroquinolones) among lab-confirmed pulmonary RR-TB/MDR-TB notified cases during the reporting period.	Number of new or previously treated bacteriologically confirmed pulmonary TB patients with resistance to rifampicin and with test results for any fluoroquinolone", during the reporting period *WHO database: rr_dst_rlt_fq*	Number of new or previously treated bacteriologically confirmed pulmonary RR-TB/MDR-TB notified cases, during the reporting period *WHO database: rr_new* plus *rr_ret*	By assay types used to detect resistance: (1) phenotypic (e.g., MGIT/ liquid, MODS, other); (2) genotypic (e.g., line probe assay, XDR, sequencing)	Standard WHO indicator
DT-28	TB patients with resistance to rifampicin and resistance to fluoroquinolones	Number of new or previously treated bacteriologically confirmed pulmonary TB patients with resistance to rifampicin and resistance to fluoroquinolones. WHO: *rr_fqr*	Number of new or previously treated bacteriologically confirmed pulmonary TB patients with resistance to rifampicin and resistance to fluoroquinolones *WHO database: rr_fqr*	N/A		Standard WHO indicator
Specimen Turnaround Time (TAT)						
DT-29	Proportion of presumptive TB patients identified during the reporting period with specimen collected within specified target timeframe	Assessing turnaround time performance between identification of presumptive TB patient and specimen collected.	Number of presumptive TB patients identified during the reporting period with specimen collected within specified target timeframe	Number of presumptive TB patients identified during the reporting period		Programs need to: (1) define target timeframe for this indicator, and (2) specify data collection method used

Ref #[17]	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
DT-30	Proportion of specimens collected during the reporting period submitted to testing laboratory within specified target timeframe	Assessing turnaround time performance between specimens collected and being sent to the testing laboratory.	Number of specimens collected during the reporting period submitted to testing laboratory within specified target timeframe	Number of specimens collected and submitted for testing during the reporting period		Programs need to: (1) define target timeframe for this indicator, and (2) specify data collection method used
DT-31	Proportion of specimens received at testing facility and tested during the reporting period within specified target timeframe	Assessing turnaround time performance between specimen received at testing facility and test result.	Number of specimens received at testing facility and tested during the reporting period within specified target timeframe	Number of specimens submitted for testing during the reporting period		Programs need to: (1) define target timeframe for this indicator, and (2) specify data collection method used
DT-32	Proportion of specimens tested and results report to referring facility (or physician) during the reporting period within specified target timeframe	Assessing turnaround time performance between test result generated and results reported to the referring facility (or physician).	Number of specimens tested and results reported to referring facility (or physician) during the reporting period within specified target timeframe	Number of specimens tested and results reported to referring facility (or physician) during the reporting period		Programs need to: (1) define target turnaround times for this indicator, and (2) specify data collection method used
DT-33	Proportion of results reported and patients initiated on treatment during the reporting period within specified target timeframe	Assessing turnaround time performance results reported and patients initiated on treatment.	Number of results reported and patients initiated on treatment during the reporting period within specified target timeframe	Number of results reported and patients initiated on treatment during the reporting period		Programs need to: (1) define target timeframe for this indicator, and (2) specify data collection method used

DRUG-RESISTANT TB NOTIFICATIONS (RN)

Note:
*Short Treatment Regimen refers to treatment up to 12 months of duration
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators
*DR-TB includes RR-TB/MDR-TB and XDR

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
RN-1	DR-TB Notifications	Number of laboratory-confirmed DR-TB cases notified during reporting year.	Number of laboratory-confirmed DR-TB cases notified during reporting year *WHO database: conf_rrmdr* plus *all_conf_xdr.*	N/A	Age [(0-14), (15 and older)], gender	Standard WHO indicator
RN-2	DR-TB case detection	Percentage of laboratory-confirmed DR-TB cases notified during reporting year, out of the estimated number of incident DR-TB cases in reporting period.	Number of laboratory-confirmed DR-TB cases notified during reporting period *WHO database: conf_rrmdr* plus *all_conf_xdr*	Estimated incidence of rifampicin-resistant TB during the reporting period *WHO database: e_inc_rr_num*		Standard WHO indicator
RN-3	Percent of notified RR/MDR-TB cases with DST results for second-line TB drugs	Percentage of laboratory-confirmed pulmonary RR-TB/MDR-TB cases tested for susceptibility to second-line TB drugs (fluoroquinolones) among lab-confirmed pulmonary RR-TB/MDR-TB notified cases during the reporting period.	Number of new or previously treated bacteriologically confirmed pulmonary TB patients with resistance to rifampicin and with test results for any fluoroquinolones during reporting period. *WHO database: rr_dst_rlt_fq*	Number of new or previously treated bacteriologically confirmed pulmonary RR-TB/MDR-TB notified cases during the reporting period *WHO database: rr_new PLUS rr_ret*	By assay types used to detect resistance: 1.) Phenotypic (e.g., MGIT/ liquid, MODS, other) 2.) Genotypic (e.g. Line Probe Assay, XDR, sequencing)	Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
RN-4	Number of DR-TB enrolled on treatment	Number of laboratory-confirmed or clinically diagnosed DR-TB patients enrolled on appropriate treatment for DR-TB during the reporting period.	Number of laboratory-confirmed or clinically diagnosed DR-TB patients enrolled on appropriate treatment for DR-TB during the reporting period *WHO database: unconf_rrmdr_tx* plus *conf_rrmdr_tx* plus *conf_xdr_tx*	N/A	Age [(0-14), (15 and older)], gender, treatment regimen	
RN-5	DR-TB treatment enrollment coverage	Percentage of DR-TB enrolled on appropriate treatment in reporting year divided by number of DR-TB cases notified during the reporting period, expressed as a percentage.	Number of laboratory-confirmed or clinically diagnosed DR-TB patients enrolled on appropriate treatment for DR-TB during the reporting period *WHO database: unconf_rrmdr_tx* plus *conf_rrmdr_tx* plus *conf_xdr_tx*	Number of DR-TB cases notified during the reporting period		Standard WHO indicator
RN-6	Number of treatment sites providing DR-TB treatment	Total number of healthcare sites (both public and private) that are providing the appropriate treatment to DR-TB patients during the reporting period.	Number of healthcare sites (both public and private) that are providing the appropriate treatment to DR-TB patients during the reporting period	N/A	Public sites, private sites	
RN-7	Number of DR-TB initiated on "all oral" short treatment regimen	Total number of DR-TB cases initiated on "all oral" short treatment regimen (i.e., treatment up to 12 months of duration) during specified period.	Total number of DR-TB cases initiated on "all oral" short treatment regimen (i.e., treatment up to 12 months of duration) during specified period	N/A	RN-7	Number of DR-TB initiated on "all oral" short treatment regimen
RN-8	Number of DR-TB initiated on "all oral" longer treatment regimen	Total number of DR-TB cases initiated on "all oral" longer treatment regimen during the reporting period.	Total number of DR-TB cases initiated on "all oral" longer treatment regimen during period	N/A	RN-8	Number of DR-TB initiated on "all oral" longer treatment regimen

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
TH-15	Percent of DR-TB patients with known HIV status	Percentage of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis, among all DR-TB patients notified during the reporting period.	Number of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis during the reporting period	Number of laboratory-confirmed DR-TB cases notified during the reporting period *WHO database: conf_rrmdr* plus *all_conf_xdr*		
TH-16	Percent of DR-TB patients recorded as HIV-positive	Percentage of DR-TB patients recorded as HIV-positive, among all DR-TB patients tested for HIV (or with known HIV status) during the reporting period.	Number of lab-confirmed DR-TB patients recorded as HIV-positive during the reporting period	Number of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis during the reporting period		
TH-19	Percent of HIV-positive DR-TB patients started or continued on ART	Percentage of DR-TB patients started or continued on ART during the reporting period, among DR-TB patients recorded as HIV-positive during the reporting period.	Number of HIV-positive DR-TB patients started or continued on ART during the reporting period	Number of lab-confirmed DR-TB patients recorded as HIV-positive status during the reporting period		

CHILDHOOD TB (CH)

Note:
*Childhood prevention indicators are found with TB Preventive Indicators (PT)
*All forms is defined as bacteriologically confirmed or clinically diagnosed, pulmonary or extra pulmonary
*Treatment outcomes are defined by the time period of notification; e.g., "2018 cases successfully treated" reflect those for which notifications were reported in 2018, even though treatment may have extended into 2019—for this reason, treatment outcome data follows at a lag of one year
*WHO definitions of treatment outcomes are defined under Treatment Success Indicators
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators
*DR-TB includes RR-TB/MDR-TB and XDR

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-1	Estimated number of TB cases among 0-14-year-old children	Estimated number of TB cases among 0-14-year-old children (all forms)	Estimated number of TB cases among 0-14-year-old children (all forms)	N/A		Standard WHO indicator
CH-2	Estimated number of TB deaths among 0- to 14- year-old children	Estimated number of TB deaths among 0-14-year-old children	Estimated number of TB deaths among 0-14-year-old children	N/A		Standard WHO indicator
Diagnosis						
CH-3	Children (0-14 years) clinically evaluated for TB	Number of children (0-14 years) who screened positive for TB and were clinically evaluated for active TB disease using country diagnostic algorithms in cases where bacteriological testing is not available or is not performed during the reporting period.	Number of children (0-14 years) who screened positive for TB and were clinically evaluated for active TB disease using country diagnostic algorithms in cases where bacteriological testing is not available or is not performed during the reporting period	N/A		

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-4		Number of children (0-14 years) who were clinically diagnosed with TB regardless of whether or not they accessed a diagnostic test during the reporting period.	Number of children (0-14 years) who were clinically diagnosed with TB regardless of whether or not they accessed a diagnostic test during the reporting period	N/A		
CH-5	Childhood TB Notification	Number of new and relapse childhood TB cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, that were notified in the reporting period.	Number of new and relapse childhood TB cases and childhood cases with unknown previous TB treatment history (0-14 years), all forms, that were notified in reporting period *WHO database: newrel_f014* plus *newrel_m014* plus *newrel_sexunk014*	N/A		Standard WHO indicator
CH-6	Percentage of new and relapse TB case notifications that are among 0-14-year-old children, calculated at national and subnational level	Percentage of new and relapse TB case notifications that are among 0-14-year-old children (all forms), calculated at the national and subnational level.	Number of new and relapse childhood (ages 0-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_m014* plus *newrel_f014*	Total number of new and relapse TB cases (all forms) notified at national and subnational level, respectively, during the reporting period *WHO database: c_newinc*	National and subnational	Should be around 10%, calculated from WHO database or NTP data provided directly to USAID
CH-7	Childhood TB detection	Number of new and relapse childhood (ages 0-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in a reporting period, divided by the estimated number of incident TB cases among 0-14-year-old children in the same year, expressed as a percentage.	Number of new and relapse childhood (ages 0-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_m014* plus *newrel_f014*	Estimated number of incident TB cases among 0-14-year-old children (all forms) during the reporting period		Standard WHO indicator

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-8	Childhood TB (0-4) notifications	Number of new and relapse childhood (ages 0-4 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period	Number of new and relapse childhood (ages 0-4 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_f04* plus *newrel_m04* plus *newrel_sexunk04*	N/A		Standard WHO indicator
CH-9	Childhood TB (5-14) notifications	Number of new and relapse childhood (ages 5-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in the reporting period.	Number of new and relapse childhood (ages 5-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_f514* plus *newrel_m514* plus *newrel_sexunk514*	N/A		Standard WHO indicator
CH-10	Ratio of 0-4 to 5-14 years-old notifications	Ratio of 0-4 to 5-14 years-old notifications.	Number of new and relapse childhood (ages 0-4 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrel_m04* plus *newrel_f04*	Number of new and relapse childhood (ages 5-14 years) TB cases and childhood cases with unknown previous TB treatment history (all forms) who were notified in reporting period *WHO database: newrul_f514* plus *newrel_m514* plus *newrel_sexunk514*		Should be 1:3; calculated from WHO database or NTP data provided directly to USAID

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-11	Percent of notified new and relapse pulmonary TB notifications (0-14 years-old) with bacteriological confirmation	Percentage of bacteriologically confirmed pulmonary TB notifications (ages 0-14 years) among all new and relapse notified pulmonary TB cases (ages 0-14 years) notified during a reporting period.	Number of bacteriologically confirmed pulmonary TB notifications, new and relapse, (ages 0-14 years) notified during a reporting period	Number of pulmonary TB notifications (ages 0-14 years), new and relapse, notified during the reporting period		See WHO rapid communica-tion on use of molecular assays noting that stool, NPT, and gastric aspirates should be tested with Xpert; this should increase over time
CH-12	Percent of notified new and relapse extrapulmonary TB notifications (0-14 years-old) with bacteriological confirmation	Percentage of bacteriologically confirmed extrapulmonary TB notifications (ages 0-14 years) among all new and relapse notified extrapulmonary TB cases (ages 0-14 years) notified during a reporting period.	Number of bacteriologically confirmed extrapulmonary TB notifications, new and relapse (ages 0-14 years) notified during the reporting period	Number of extrapulmonary TB notifications (ages 0-14 years), new and relapse, notified during the reporting period		See WHO rapid communica-tion on use of molecular assays noting that stool, NPT, and gastric aspirates should be tested with Xpert; this should increase over time
CH-13	Childhood (ages 0-14) DR-TB notifications	Number of laboratory-confirmed childhood (ages 0-14 years) DR-TB (RR/MDR and XDR) cases notified during the reporting period.	Number of laboratory-confirmed childhood (ages 0-14 years) DR-TB (RR/MDR and XDR) cases notified during the reporting period	N/A		
Treatment						
CH-14	Treatment success rate for childhood TB (ages 0-14)	Percentage of new and relapse childhood TB cases (ages 0-14 years), all forms, successfully treated (cured or treatment completed) among all childhood TB cases (ages 0-14 years) notified during the same reporting period.	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who were cured or treatment completed during the reporting period	Number of new and relapse childhood-TB cases (ages 0-14 years), all forms, who were notified during the same reporting period		Standard WHO indicator for European countries

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-15	Treatment success rate for childhood TB (ages 0-4)	Percentage of new and relapse childhood TB cases (ages 0-4 years) successfully treated (cured or treatment completed) among all childhood TB cases (ages 0-4 years), all forms, notified during the same reporting period.	Number of new and relapse childhood TB cases (ages 0-4 years), all forms, who were cured or treatment completed during the reporting period	Number of new and relapse childhood-TB cases (ages 0-4 years), all forms, who were notified during the same reporting period		
CH-16	Treatment success rate for childhood TB (ages 5-14)	Percentage of new and relapse childhood TB cases (ages 5-14 years), all forms, successfully treated (cured or treatment completed) among all childhood TB cases (ages 5-14 years), all forms, notified during the same reporting period.	Number of children with TB (ages 5-14 years), all forms, who were cured or treatment completed during the reporting period	Number of new and relapse childhood-TB cases (ages 5-14 years), all forms, who were notified during the same reporting period		
CH-17	Treatment outcome for childhood TB (ages 0-14): Died	Percentage of new and relapse childhood TB cases (ages 0-14 years), all forms, who died during treatment, among all childhood TB (ages 0-14 years) cases notified during the same reporting period (cohort).	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who died during treatment, during a reporting period	Number of new and relapse childhood-TB cases (ages 0-14 years), all forms, who were notified during the same reporting period		Standard WHO indicator for European countries
CH-18	Treatment outcome for childhood TB (ages 0-14): Treatment failed	Percentage of new and relapse childhood TB cases (ages 0-14 years), all forms, whose treatment failed, among all childhood TB (ages 0-14) cases notified during the same reporting period.	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, whose treatment failed, during the reporting period	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who were notified during the same reporting period		Standard WHO indicator for European countries

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-19	Treatment outcome for childhood TB (ages 0-14): Lost to follow-up (LTFU)	Percentage of new and relapse childhood TB cases (ages 0-14 years), all forms, who were LTFU, among all childhood TB (ages 0-14 years) cases notified during the same reporting period.	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who were LTFU, during the reporting period	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who were notified during the same reporting period		Standard WHO indicator for European countries
CH-20	Treatment outcome for childhood TB (ages 0-14): Not evaluated	Percentage of new and relapse childhood TB cases (ages 0-14 years), all forms, who were not evaluated, among all childhood TB (ages 0-14 years) cases notified during the same reporting period (not evaluated includes "transferred out," "still on treatment," and any other notified case where the treatment outcome has not been evaluated).	Number of new and relapse childhood TB cases (ages 0-14 years), all forms, who were not evaluated, during the reporting period	Number of new and relapse childhood-TB cases (ages 0-14 years), all forms, who were notified during the same reporting period		Standard WHO indicator for European countries
CH-21	Number of childhood DR-TB (ages 0-14) who were enrolled on appropriate DR-TB treatment by regimen during a specified period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the reporting period.	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the reporting period	N/A	By treatment regimens	This indicator must be reported by specific treatment regimens

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-22	Childhood DR-TB (ages 0-14) treatment success rate	Percentage of childhood DR-TB cases (ages 0-14 years) successfully treated (cured or treatment completed) among all childhood DR-TB (ages 0-14 years) cases enrolled on appropriate treatment during the same reporting period.	Number of childhood (ages 0-14 years) DR-TB cases successfully treated (cured or treatment completed) during the reporting period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the same reporting period		
CH-23	Childhood DR-TB (ages 0-14) treatment outcome: Died	Percentage of childhood DR-TB cases (ages 0-14) who died during treatment, among all childhood DR-TB (ages 0-14 years) cases enrolled on appropriate treatment during the same reporting period.	Number of childhood (ages 0-14 years) DR-TB (RR/MDR and XDR) cases who died during treatment during the reporting period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the same reporting period		

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-24	Childhood DR-TB (ages 0-14) treatment outcome: Failed	Percentage of childhood (ages 0-14 years) DR-TB whose treatment failed, among all childhood DR-TB (ages 0-14 years) cases enrolled on appropriate treatment during the same reporting period.	Number of childhood (ages 0-14 years) DR-TB whose treatment failed, during the reporting period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the same reporting period		
CH-25	Childhood DR-TB (ages 0-14) treatment outcome: LTFU	Percentage of childhood (ages 0-14 years) DR-TB cases who were LTFP, among all childhood DR-TB (ages 0-14 years) cases enrolled on appropriate treatment during the same reporting period.	Number of childhood (ages 0-14 years) DR-TB cases who were LTFP, during the reporting period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the same reporting period		

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-26	Childhood DR-TB treatment outcome: Not evaluated	Percentage of childhood (ages 0-14 years) DR-TB cases who were not evaluated, among all childhood DR-TB (ages 0-14 years) cases enrolled on appropriate treatment during the same reporting period (not evaluated includes "transferred out," "still on treatment," and any other notified case where the treatment outcome has not been evaluated).	Number of childhood (ages 0-14 years) DR-TB cases who were not evaluated, during the reporting period	Number of children (ages 0-14 years) who were laboratory-confirmed or clinically diagnosed with DR-TB and enrolled on appropriate treatment for DR-TB during the same reporting period		
National Policy						
CH-27	Use of child-friendly formulations for TB treatment, first-line drugs (Yes/No)	Does the national policy include a provision to procure and supply child-friendly formulations for TB treatment, first-line drugs (Yes/No)?	Does the national policy include a provision to procure and supply child-friendly formulations for TB treatment, first-line drugs (Yes/No)?	N/A		
CH-28	Use of child-friendly formulations for TB treatment, second-line drugs (Yes/No)	Does the national policy include a provision to procure and supply child-friendly formulations for TB treatment, second-line drugs (Yes/No)?	Does the national policy include a provision to procure and supply child-friendly formulations for TB treatment, second-line drugs (Yes/No)?	N/A		

Ref#	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
CH-29	Stockouts of child-friendly formulations for TB treatment, by year and length of stockout	Occurrence of a stockout of one or more child-friendly formulations for TB treatment at any TB diagnostic site (e.g., Basic Management Unit) or drug storage facility at the end of reporting period (quarter/year).	This is a Yes/No response for the initial part of the indicator—only if yes, then detailed disaggregated data should be provided	1) Generic names of replenishable TB diagnostic product 2) Geographic locations; treatment site/drug storage facility 3) Central/regional/ district level 4) Length of stockout		Means of verification: Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports

PRIVATE SECTOR INDICATORS (PR)

Notes:
*These indicators are particularly important for the "big seven" PPM countries identified in the PPM Roadmap: India, Indonesia, Philippines, Pakistan, Nigeria, Bangladesh, and Burma. Those countries have large private sectors (e.g., private sector is >2/3 of initial care seeking) and account for 57% of the global TB incidence and 63% of missing cases.
*Unless indicated otherwise, private sector is defined as for-profit private facilities (source: World Health Organization. [2018]. Engaging private healthcare providers in TB care and prevention: a landscape analysis. Retrieved from https://www.who.int/tb/publications/2018/PPMlandscape/en/)
*All forms is defined as bacteriologically confirmed or clinically diagnosed, pulmonary or extra pulmonary
*DR-TB includes RR/MDR-TB and XDR
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PR-1	Private Sector TB Notifications	Number of new and relapse TB cases all forms (bacteriologically confirmed or clinically diagnosed) notified by private non-national TB program providers in reporting period. *Per WHO's definition/database private non-NTP providers include private individual and institutional providers, corporate/business sector providers, mission hospitals, and other clinics/hospitals managed by NGOs and faith-based organizations.*	Number of new and relapse TB cases all forms (bacteriologically confirmed or clinically diagnosed) notified by private non-national TB program providers in reporting period *WHO database: priv_new_dx*	N/A		Standard WHO indicator
PR-2	Percentage of notified TB cases contributed by private sector	Percentage of notified new and relapse TB cases (all forms) contributed by private non-NTP providers, among all new and relapse TB cases notified during the reporting period.	Number of new and relapse TB cases (all forms) notified by private non-NTP providers during the reporting period	Total number of new and relapse TB cases and cases with unknown previous TB treatment history (all forms) notified during the reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PR-3	Percentage of privately notified pulmonary cases with bacteriologically confirmed TB	Percentage of new and relapse pulmonary TB cases notified by private non-NTP providers that are bacteriologically confirmed, during reporting year.	Number of new and relapse bacteriologically confirmed pulmonary TB cases notified by private non-NTP providers during the reporting period	Number of new and relapse pulmonary TB cases notified by the private sector during the reporting period		
PR-4	Percentage of notified DR-TB cases contributed by private sector	Percentage of notified DR-TB cases contributed by private non-NTP providers, among all DR-TB cases notified during the reporting period.	Number of DR-TB cases notified by private non-NTP providers during the reporting period	Number of DR-TB cases notified during the reporting period	Laboratory confirmed	
PR-5	Percentage of privately notified pulmonary cases with confirmed result on rifampicin sensitivity	Percentage of new and relapse pulmonary TB cases notified by private non-NTP providers that have confirmed results on rifampicin sensitivity, among all new and relapse bacteriologically confirmed pulmonary TB cases notified by private non-NTP providers during the reporting period.	Number of new and relapse pulmonary TB cases notified by private non-NTP providers that have confirmed result on rifampicin sensitivity during the reporting period	Number of new and relapse bacteriologically confirmed pulmonary TB cases notified by private non-NTP providers during the reporting period		
Treatment						
PR-6	Treatment success rate of TB cases notified by private sector	Percentage of the new and relapse TB cases (all forms) notified by private non-NTP providers who were successfully treated (cured or completed treatment) among all TB cases (new and relapse) notified by private non-NTP providers during a reporting period.	Number of new and relapse TB cases (all forms) notified by private non-NTP providers who were successfully treated (cured or completed treatment) during a reporting period	Number of new and relapse TB cases (all forms) notified by private non-NTP providers during the reporting period		
PR-7	Treatment success rate of DR-TB cases enrolled on treatment in private sector	Percentage of the DR-TB cases notified by private non-NTP providers enrolled on appropriate treatment who were successfully treated (cured or completed treatment) among all DR-TB cases enrolled on treatment notified by private non-NTP providers during a reporting period.	Number of DR-TB cases enrolled on appropriate treatment notified by private non-NTP providers who were successfully treated (cured or completed treatment) during a reporting period	Number of DR-TB cases enrolled on appropriate treatment notified by private non-NTP providers during the reporting period		

TB TREATMENT SUCCESS INDICATORS (SS)

Note:

*All forms is defined as bacteriologically confirmed or clinically diagnosed, pulmonary or extra pulmonary

*Treatment outcomes are defined by the time period of notification; e.g., "2018 cases successfully treated" reflect those for which notifications were reported in 2018, even though treatment may have extended into 2019—for this reason, treatment outcome data follows at a lag of one year

*WHO definitions of treatment outcomes:

- **Cured** – A pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smear- or culture-negative in the last month of treatment and on at least one previous occasion;
- **Treatment completed** – A TB patient who completed treatment without evidence of failure BUT with no record to show that sputum smear or culture results in the last month of treatment and on at least one previous occasion were negative, either because tests were not done or because results are unavailable;
- **Treatment failed** – A TB patient whose sputum smear or culture is positive at month five or later during treatment;
- **Died** – A TB patient who dies for any reason before starting or during the course of treatment;
- **LTFU** – A TB patient who did not start treatment or whose treatment was interrupted for two consecutive months or more;
- **Not evaluated** – A TB patient for whom no treatment outcome is assigned, this includes cases "transferred out" to another treatment unit as well as cases for whom the treatment outcome is unknown to the reporting unit;
- **Treatment success** – The sum of cured and treatment completed

*All percentages calculated: (Numerator/Denominator) x100

*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SS-1	TB Treatment Success Rate	Percentage of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary) who were notified in a specified period that were cured or treatment completed, among the total new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), notified to the national health authorities during the same reporting period.	Number of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), who were notified in a specified period that were cured or treatment completed *WHO database: newrel_succ*	Number of new and relapse TB cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary), notified in the same period *WHO database: newrel_coh*	Age, gender, public and private sector; for childhood TB age disaggregation, refer to childhood TB section	Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SS-2	TB treatment outcome: Died during treatment	Percentage of new and relapse TB cases, all forms, who died during treatment, among TB cases (new and relapse), all forms, notified to the national health authorities during the same reporting period.	Number of TB cases (new and relapse), all forms, who died during treatment, during the reporting period *WHO database: newrel_died*	Number of TB cases (new and relapse), all forms, notified in the same period *WHO database: newrel_coh*	For childhood TB age disaggregation, please refer to childhood TB section	Standard WHO indicator
SS-3	TB treatment outcome: Treatment failed	Percentage of new and relapse TB cases, all forms, whose treatment failed, among TB cases (new and relapse), all forms, notified to the national health authorities during the same reporting period.	Number of TB cases (new and relapse), all forms, whose treatment failed, during reporting period *WHO database: newrel_fail*	Number of TB cases (new and relapse), all forms, notified in the same period *WHO database: newrel_coh*	For childhood TB age disaggregation, please refer to childhood TB section	Standard WHO indicator
SS-4	TB treatment outcome: LTFU	Percentage of new and relapse TB cases, all forms, who were LTFU, among TB cases (new and relapse) notified to the national health authorities during the same reporting period	Number of TB cases (new and relapse), all forms, who were LTFU, during the reporting period *WHO database: newrel_lost*	Number of TB cases (new and relapse), all forms, notified in the same period *WHO database: newrel_coh*	For childhood TB age disaggregation, please refer to childhood TB section	Standard WHO indicator
SS-5	TB treatment outcome: Not evaluated	Percentage of TB cases who were not evaluated, among TB cases (new and relapse), all forms, notified to the national health authorities during the reporting period (not evaluated includes “transferred out,” “still on treatment,” and any other notified case where the treatment outcome has not been evaluated).	Number of TB cases (new and relapse), all forms, who were not evaluated during the reporting period	Number of TB cases (new and relapse), all forms, notified in the same period *WHO database: newrel_coh*	For childhood TB age disaggregation, please refer to childhood TB section	Standard WHO indicator
SS-6	Treatment success rate for TB/HIV coinfected patients	Percentage of new and relapse TB/HIV coinfected cases (all forms) who were successfully treated (cured or treatment completed among TB/HIV coinfected cases (all forms, new and relapse) notified to the national health authorities during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) who were cured or treatment completed during the reporting period *WHO database: tbhiv_succ*	Number of new and relapse TB/HIV coinfected cases (all forms) notified in the same reporting period *WHO database: tbhiv_coh*		Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SS-7	Percent of DS-TB patients who receive TB care package	Percentage of DS-TB patients (all forms) who received TB care supportive package (receive social or economic benefits) during the same reporting period.	Number of TB patients (all forms) who received any social or economic benefits during the first month of treatment during the reporting period	Number of TB cases (new and relapse), all forms, notified in the same reporting period		

DR-TB TREATMENT SUCCESS INDICATORS (RS)

Note:

*Treatment outcomes for DR-TB are defined by the time period of enrollment on appropriate treatment; e.g., "2018 cases successfully treated" reflect those who were enrolled on appropriate treatment in 2018, even though treatment may have extended into 2020—for this reason, treatment outcome data follows at a lag of two years

*WHO definitions of DR-TB treatment outcomes:

- **Cured**–Treatment completed as recommended by the national policy without evidence of failure AND three or more consecutive cultures taken at least 30 days apart are negative after the intensive phase;
- **Treatment completed**–Treatment completed as recommended by the national policy without evidence of failure BUT no record that three or more consecutive cultures taken at least 30 days apart are negative after the intensive phase;
- **Died**–A patient who dies for any reason during the course of treatment;
- **LTFU**–A patient whose treatment was interrupted for 2 consecutive months or more;
- **Treatment failed**–Treatment terminated or need for permanent regimen change of at least two anti-TB drugs because of: lack of conversion by the end of the intensive phase; or bacteriological reversion in the continuation phase after conversion to negative; or evidence of additional acquired resistance to fluoroquinolones or second-line injectable drugs, or adverse drug reactions;
- **Not evaluated**–A patient for whom no treatment outcome is assigned. (This includes cases "transferred out" to another treatment unit and whose treatment outcome is unknown.);
- **Treatment success**–The sum of cured and treatment completed.

*DR-TB includes RR-TB/MDR-TB and XDR

*All percentages calculated: (Numerator/Denominator) x100

*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
RS-1	DR-TB Treatment Success Rate	Percentage of DR cases successfully treated (cured or treatment completed) among DR-TB cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB cases who were cured or treatment completed during the reporting period *WHO database: mdr_succ* plus *xdr_succ*	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period *WHO database: mdr_coh* plus *xdr_coh*	Age [(0-14); (15 and older)], gender	Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
RS-2	DR-TB treatment outcome: Died	Percentage of DR-TB cases who were enrolled on appropriate treatment during a specified period, and died, among DR-TB cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB cases who were enrolled on appropriate treatment during the reporting period, and died during treatment during the reporting period *WHO database: mdr_died* plus *xdr_died*	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period *WHO database: mdr_coh* plus *xdr_coh*	Age [(0-14), (15 and older)], gender	Standard WHO indicator
RS-3	DR-TB treatment outcome: Treatment failed	Percentage of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but treatment failed, among DR-TB cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but treatment failed *WHO database: mdr_fail* plus *xdr_fail*	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period *WHO database: mdr_coh* plus *xdr_coh*	Age [(0-14), (15 and older)], gender	Standard WHO indicator
RS-4	DR-TB treatment outcome: LTFU	Percentage of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but were LTFU, among DR-TB cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but were LTFU *WHO database: mdr_def* plus *xdr_def*	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period *WHO database: mdr_coh* plus *xdr_coh*	Age [(0-14), (15 and older)], gender	Standard WHO indicator
RS-5	Drug-resistant TB treatment outcome: Not evaluated	Percentage of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but not evaluated, among DR-TB cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB cases who were enrolled on appropriate treatment during the reporting period, but not evaluated	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period *WHO database: mdr_coh* plus *xdr_coh*	Age [(0-14), (15 and older)], gender	Standard WHO indicator
RS-6	Number of DR-TB cases who developed adverse reaction to DR-TB treatment	Number of DR-TB cases who developed adverse reaction to DR-TB treatment during the reporting period.	Number of DR-TB cases who developed adverse reaction to DR-TB treatment during the reporting period *WHO database: mdr_tx_adverse_events*	N/A		Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
RS-7	Percent of DR-TB patients who receive DR-TB care package	Percentage of DR-TB patients who received nonmedical interventions and benefits, aimed at improving treatment adherence and reduction of catastrophic cost during a specified period, among DR-TB cases enrolled on treatment during the same reporting period.	Total number of DR-TB patients who receive nonmedical interventions and benefits, aimed at improving treatment adherence and reduction of catastrophic cost during a specified period	Number of DR-TB cases who were enrolled on appropriate treatment during the same reporting period		
RS-8	Treatment success rate for DR-TB/HIV coinfected patients	Percentage of DR-TB/HIV coinfected cases who were successfully treated (cured or completed treatment) among DR-TB/HIV coinfected cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB/HIV coinfected cases who were successfully treated (cured or treatment completed) during the reporting period	Number of DR-TB/HIV coinfected cases enrolled on appropriate treatment in the same reporting period		Standard WHO indicator for European countries Denominator can also be total DR-successful cohort, but would give a different interpretation

TB/HIV INDICATORS (TH)

Note:
*WHO definitions of treatment outcomes are defined under Treatment Success Indicators
*DR-TB includes RR-TB/MDR-TB and XDR
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
Screening and Testing for TB Disease among PLHIV Patients						
TH-1	Percent of PLHIV enrolled on ART screened for TB disease	Percentage of PLHIV enrolled on antiretroviral therapy (ART) who were screened at least once for TB, among all PLHIV enrolled on ART during the same reporting period.	Number of PLHIV enrolled on ART who were screened at least once for TB during the reporting period	Number of PLHIV enrolled on ART during the reporting period		
TH-2	Percent of PLHIV enrolled on ART, screened positive for TB disease	Percentage of PLHIV enrolled on ART who were screened positive for TB, among all PLHIV enrolled on ART who were screened for TB during the same reporting period.	Number of PLHIV enrolled on ART who were screened positive for TB during the reporting period	Number of PLHIV enrolled on ART who were screened at least once for TB during the reporting period		
TH-3	Percent of PLHIV enrolled on ART, tested for TB disease	Percentage of PLHIV enrolled on ART who were tested for TB disease, among PLHIV enrolled on ART who screened positive for TB during the reporting period.	Number of PLHIV enrolled on ART who were tested for TB disease, during the reporting period	Number of PLHIV enrolled on ART who were screened positive for TB during the reporting period	By type of test	Tested for TB disease at least once a reporting period
TH-4	Percent of PLHIV enrolled on ART who tested positive for TB disease	Number of PLHIV enrolled on ART who were tested positive for TB disease, among PLHIV enrolled on ART who were tested for TB during the reporting period.	Number of PLHIV enrolled on ART who were tested positive for TB disease during the reporting period	Number of PLHIV enrolled on ART who were tested for TB disease during the reporting period		Standard WHO/UNAIDS indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
TH-5	Percent of PLHIV enrolled on ART and tested positive for TB disease, who were enrolled on TB treatment	Percentage of PLHIV enrolled on ART and tested positive for TB disease who were enrolled on TB treatment, among all PLHIV enrolled on ART and tested positive for TB disease during reporting period.	Number of PLHIV enrolled on ART and tested positive for TB disease who were enrolled on TB treatment, during the reporting period	Number of PLHIV enrolled on ART and tested positive for TB disease during the reporting period		
TH-6	Percent of PLHIV enrolled on ART, screened negative for TB disease	Percentage of PLHIV enrolled on ART who were screened negative for TB disease, among all PLHIV enrolled on ART who were screened for TB during the same reporting period.	Number of PLHIV enrolled on ART who were screened negative for TB disease during the reporting period	PLHIV enrolled on ART who were screened for TB disease during the reporting period		
TH-7	Percent of PLHIV enrolled on ART, tested for TBI	Percentage of PLHIV enrolled on ART who were screened negative for TB disease and were tested for TBI, among all PLHIV enrolled on ART who were screened negative for TB during the same reporting period.	Number of PLHIV enrolled on ART who were screened negative for TB disease and were tested for TBI, during the reporting period	Number of PLHIV enrolled on ART who were screened negative for TB disease during the reporting period	By method of TBI testing: TST, IGRA, or both	
TH-8	Percent of PLHIV enrolled on ART, tested positive for TBI	Percentage of PLHIV enrolled on ART who were screened negative for TB disease and were tested positive for TBI, among all PLHIV enrolled on ART who were screened negative for TB, and were tested for TBI, during the same reporting period.	Number of PLHIV enrolled on ART who were screened negative for TB disease and tested positive for TBI, during the reporting period	Number of PLHIV enrolled on ART who were screened negative for TB disease and were tested for TBI, during the reporting period	By method of TBI testing: TST, IGRA, or both	
PLHIV-TPT						
PT-5	TPT-PLHIV coverage	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period.	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period *WHO database: hiv_ipt_reg_all*	N/A		Standard WHO indicator
PT-8	Percent of PLHIV initiated on TPT	Percentage of PLHIV enrolled in HIV care who were started on TPT during the reporting period, among all PLHIV enrolled in HIV care.	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period *WHO database: hiv_ipt_reg_all*	Number of PLHIV enrolled in HIV care during the reporting period *WHO database: hiv_reg_all*		Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
PT-12	Percent of PLHIV completed TPT	Percentage of PLHIV enrolled in HIV care who were started on TPT and completed therapy, among all PLHIV enrolled in HIV care who were started on TPT during the reporting period.	Number of PLHIV enrolled in HIV care who were started on TPT and completed therapy during the reporting period	Number of PLHIV enrolled in HIV care who were started on TPT according to national TB prevention treatment protocols during the reporting period		
TH-9	Percent of PLHIV on TPT: LTFU	Percentage of PLHIV individuals who were started on TPT but were LTFU.	Number of PLHIV individuals who were started on TPT and were LTFU during the reporting period	Number of PLHIV individuals who were started on TPT according to national TB prevention treatment protocols during the specified reporting period		
TH-10	Percent of PLHIV on TPT developed TB during TPT	Percentage of PLHIV individuals on TPT who developed TB during prevention therapy.	Total number of PLHIV individuals who were started on TPT and developed TB during TPT, during the reporting period	Total number of PLHIV individuals who were started on TPT according to national TB prevention treatment protocols during the specified reporting period		
TH-11	Percent of PLHIV on TPT, and TPT interrupted due to adverse drug reaction (ADR)	Percentage of PLHIV individuals whose TPT was interrupted due to ADR (adverse drug reaction).	Total number of PLHIV individuals who began on TPT but whose treatment was interrupted due to development of ADR, during the reporting period	Total number of PLHIV individuals who were started on TPT according to national TB prevention treatment protocols during the specified reporting period		
TH-12	Percent of PLHIV on TPT, with baseline AST/ALT tests	Percentage of PLHIV on TPT who had a baseline AST/ALT before initiation of prevention therapy.	Total number of PLHIV individuals who had baseline AST/ALT tests before initiation of TPT, during the reporting period	Total number of PLHIV individuals who were started on TPT according to national TB prevention treatment protocols during the specified reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
Testing TB Patients for HIV						
TH-13	Percent of TB patients with known HIV status	Percentage of new and relapse TB patients notified during the reporting period who were tested for HIV at the time of diagnosis or with known HIV status at the time of TB diagnosis, among all new and relapse TB patients (all forms) notified during the reporting period.	Number of new and relapse TB patients notified during the reporting period who were tested for HIV at the time of diagnosis or with known HIV status at the time of TB diagnosis *WHO database: newrel_hivtest*	Number of new and relapse TB patients (all forms) notified during the reporting period *WHO database: c_newinc*		Standard WHO indicator
TH-14	Percent of TB patients recorded as HIV-positive	Percentage of new and relapse TB patients recorded as HIV-positive, among all new and relapse TB patients (all forms) with known HIV-status notified during the reporting period.	Number of new and relapse TB patients recorded as HIV-positive during the reporting period *WHO database: newrel_hivpos*	Number of new and relapse TB patients notified during the reporting period who were tested for HIV at the time of diagnosis or with known HIV status at the time of TB diagnosis WHO database: newrel_hivtest	Age, gender, setting (public, private)	Standard WHO indicator
TH-15	Percent of DR-TB patients with known HIV status	Percentage of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis, among all DR-TB patients notified during the reporting period.	Number of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis during the reporting period	Number of laboratory-confirmed DR-TB cases notified during reporting year *WHO database: conf_rrmdr plus all_conf_xdr*		
TH-16	Percent of DR-TB patients recorded as HIV-positive	Percentage of DR-TB patients recorded as HIV-positive, among all DR-TB patients notified during the reporting period.	Number of lab-confirmed DR-TB patients recorded as HIV-positive during the reporting period	Number of DR-TB patients who were tested for HIV at the time of diagnosis or with known HIV status at the time of DR-TB diagnosis during the reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
TH-17	Percent of DR-TB/HIV coinfected patients enrolled on appropriate DR-TB treatment	Percentage of lab-confirmed DR-TB patients recorded as HIV-positive, and were enrolled on appropriate treatment, among all lab-confirmed DR-TB patients recorded as HIV-positive during the reporting period.	Number of lab-confirmed DR-TB patients recorded as HIV-positive, and were enrolled on appropriate treatment, during the reporting period	Number of lab-confirmed DR-TB patients recorded as HIV-positive during the reporting period		
TH-18	Percent of HIV-positive TB patients started or continued on ART	Percentage of HIV-positive TB patients started or continued on ART during the reporting period, among new and relapse TB patients recorded as HIV-positive during the reporting period.	Number of HIV-positive TB patients started or continued on ART during the reporting period *WHO database: newrel_art*	Number of new and relapse TB patients recorded as HIV-positive during the reporting period *WHO database: newrel_hivpos*		Standard WHO indicator
TH-19	Percent of HIV-positive DR-TB patients started or continued on ART	Percentage of DR-TB patients started or continued on ART during the reporting period, among DR-TB patients recorded as HIV-positive during the reporting period.	Number of HIV-positive DR-TB patients started or continued on ART during the reporting period	Number of lab-confirmed DR-TB patients recorded as HIV-positive status during the reporting period		
TB/HIV Coinfected Treatment Outcomes						
SS-6	Treatment success rate for TB/HIV coinfected patients	Percentage of new and relapse TB/HIV coinfected cases who were successfully treated (cured or treatment completed) among TB/HIV coinfected cases (all forms, new and relapse) notified during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) who were successfully treated (cured or treatment completed) during the same reporting period *WHO database: tbhiv_succ*	Number of new and relapse TB/HIV coinfected cases (all forms) notified during the same reporting period *WHO database: tbhiv_coh*		Standard WHO Indicator Denominator can also be total successful cohort, but would give a different interpretation
TH-20	TB/HIV coinfected treatment outcome: Died during treatment (expressed as percentage)	Percentage of new and relapse TB/HIV coinfected cases who died during treatment, among TB/HIV coinfected cases (all forms, new and relapse) notified during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) who died during treatment, during the reporting period *WHO database: tbhiv_died*	Number of new and relapse TB/HIV coinfected cases (all forms) notified during the same reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
TH-21	TB/HIV coinfected treatment outcome: Treatment failed	Percentage of new and relapse TB/HIV coinfected cases whose treatment failed, among TB/HIV coinfected cases (all forms, new and relapse) notified during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) whose treatment failed, during the reporting period *WHO database: tbhiv_fail*	Number of new and relapse TB/HIV coinfected cases (all forms) notified during the same reporting period *WHO database: tbhiv_coh*		
TH-22	TB/HIV coinfected treatment outcome: LTFU	Percentage of new and elapse TB/HIV coinfected cases who were LTFU, among TB/HIV coinfected cases (all forms, new and relapse) notified during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) who were LTFU, during the reporting period *WHO database: tbhiv_lost*	Number of new and relapse TB/HIV coinfected cases (all forms) notified during the same reporting period *WHO database: tbhiv_coh*		
TH-23	TB/HIV coinfected treatment outcome: Not evaluated	Percentage of new and relapse TB/HIV coinfected cases who were not evaluated, among TB/HIV coinfected cases (all forms, new and relapse) notified during the same reporting period.	Number of new and relapse TB/HIV coinfected cases (all forms) who were not evaluated during the reporting period	Number of new and relapse TB/HIV coinfected cases (all forms) notified during the same reporting period		
DR-TB/HIV Coinfected Treatment Outcomes						
RS-8	Treatment success rate for DR-TB/HIV coinfected patients	Percentage of DR-TB/HIV coinfected cases who were successfully treated (cured or treatment completed) among DR-TB/HIV coinfected cases enrolled on appropriate treatment during the same reporting period.	Number of DR-TB/HIV coinfected cases who were successfully treated (cured or treatment completed) during the reporting period	Number of DR-TB/HIV coinfected cases enrolled on appropriate treatment in the same reporting period		Standard WHO indicator for European countries Denominator can also be total DR-successful cohort, but would give a different interpretation

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
TH-24	DR-TB/HIV coinfection treatment outcome: Died during treatment (expressed as percentage)	Percentage of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, and died during treatment.	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, and died during treatment	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period		Standard WHO indicator for European countries
TH-25	DR-TB/HIV coinfected treatment outcome: Treatment failed	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, but treatment failed.	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, but treatment failed	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period		Standard WHO indicator for European countries
TH-26	DR-TB/HIV coinfected treatment outcome: LTFU	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during a specified period, but were LTFU.	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, but were LTFU	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period		Standard WHO indicator for European countries
TH-27	DR-TB/HIV coinfected treatment outcome: Not evaluated	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, but not evaluated (includes "transferred out," "still on treatment," and any other notified case where the treatment outcome has not been evaluated).	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period, but not evaluated (includes "transferred out," "still on treatment," and any other notified case where the treatment outcome has not been evaluated)	Number of DR-TB/HIV coinfected cases (RR/MDR and XDR) who were enrolled on appropriate treatment during the reporting period		Standard WHO indicator for European countries
Other						
TH-28	PLHIV with TB who have CD4>100	Percentage of PLHIV with TB who have CD4>100 among HIV-positive TB patients started or continued on ART during the reporting period.	Number of PLHIV with TB who have CD4>100 during the reporting period	Number of HIV-positive TB patients started or continued on ART during the reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comment
TH-29	PLHIV with TB who have CD4>350	Percentage of PLHIV with TB who have CD4>350 among HIV-positive TB patients started or continued on ART during the reporting period.	Number of PLHIV with TB who have CD4>350 during the reporting period	Number of HIV-positive TB patients started or continued on ART during the reporting period		
TH-30	PLHIV with TB who have viral load testing every 6 months	Percentage of PLHIV with TB who have viral load testing every 6 months among HIV-positive TB patients started or continued on ART during the reporting period.	Number of PLHIV with TB who have viral load testing every 6 months	Number of HIV-positive TB patients started or continued on ART during the reporting period		

TB PREVENTIVE TREATMENT INDICATORS (PT)

Note:

*Individuals who are eligible for TPT are those who are ruled out for TB disease and meet other criteria as specified in the national TB prevention treatment guidelines or protocols

*All percentages calculated: (Numerator/Denominator) x100

*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PT-1	TPT Coverage	Number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary new and relapse TB cases notified, and (2) PLHIV enrolled in HIV care.	Number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary new and relapse TB cases notified, and (2) PLHIV enrolled in HIV care *WHO database: newinc_con_prevtx* plus *hiv_ipt_reg_all*	N/A	1) TPT– children<5 years household contacts coverage 2) Adult household contacts and contacts > 5 years **PLUS** 3) PLHIV enrolled in HIV care	Standard WHO indicator
PT-2	TPT – household contacts coverage	Number of total household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT.	Number of total household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT *WHO database: newinc_con_prevtx*	N/A	1) TPT – children household contacts (<5 years of age) coverage, and 2) Adult household contacts and contacts > 5 yrs	Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PT-3	TPT – children (<5 years) household contacts coverage	Number of children household contacts (age <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT.	Number of children household contacts (age <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT *WHO database: newinc_con04_prevtx*	N/A		Standard WHO indicator
PT-4	TPT – adult household contacts and contacts >5 years coverage	Number of adult household contacts (and contacts >5 years of age), of bacteriologically confirmed pulmonary new and relapse TB notified during the reporting period who were started on TPT.	Number of adult household contacts (and contacts >5 years of age), of bacteriologically confirmed-pulmonary new and relapse TB notified during the reporting period who were started on TPT *WHO database: newinc_con_prevtx minus newinc_con04_prevtx*	N/A		Standard WHO indicator
PT-5	TPT – PLHIV coverage	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period.	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period *WHO database: hiv_ipt_reg_all*	N/A		Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PT-6	Percent household contacts initiated on TPT	Percentage of total household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting year who were started on TPT, among those eligible household contacts during the reporting period. This denominator can be estimated as: Estimated average household size (*e_hh_size*) multiplied by total number of new and relapse bacteriologically confirmed pulmonary TB cases (*new_labconf* plus *ret_rel_labconf*)	Number of total household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT *WHO database: newinc_con_prevtx*	Number of total eligible household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period		Standard WHO indicator
PT-7	Percent children (<5 years) household contacts initiated on TPT	Percentage of children household contacts (<5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT, among those eligible children household contacts (<5 years) during specified period.	Number of children household contacts (age <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT *WHO database: newinc_con04_prevtx*	Number of eligible children household contacts (<5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting year		Standard WHO indicator
PT-8	Percent PLHIV initiated on TPT	Percentage of PLHIV enrolled in HIV care who were started on TPT during the reporting period, among all PLHIV enrolled in HIV care.	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period *WHO database: hiv_ipt_reg_all*	Number of PLHIV enrolled in HIV care during the reporting period *WHO database*: hiv_reg_all		Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
TPT Completion						
PT-9	Percent of household contacts completed TPT	Percentage of total household contacts that began TPT during the reporting period and completed the therapy, among all household contacts who were started on TPT during same reporting period.	Number of total household contacts that began TPT during the reporting period and completed the therapy	Number of total household contacts (adults and children <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT		
PT-10	Percent of children (<5 years) household contacts completed TPT	Percentage of children (<5 years) household contacts that began TPT during the reporting period and completed the therapy, among all children (<5 years) household contacts who were started on TPT during same reporting period.	Number of children (<5 years) household contacts that began TPT during the reporting period and completed the therapy	Number of children household contacts (age <5 years) of bacteriologically confirmed pulmonary new and relapse TB cases notified in the reporting period who were started on TPT		
PT-11	Percent of adult household contacts (and contacts >5 years) completed TPT	Percentage of adult household contacts (and contacts >5 years) that began TPT during the reporting period and completed the therapy, among all adult household contacts (and contacts >5 years) who were started on TPT during same reporting period.	Number of adult household contacts (and contacts >5 years of age) of bacteriologically confirmed pulmonary new and relapse TB notified during a specified reporting period who were started on TPT and completed therapy during the reporting period	Number of adult household contacts (and contacts >5 years of age) of bacteriologically confirmed pulmonary new and relapse TB notified during the reporting period who were started on TPT		
PT-12	Percent of PLHIV completed TPT	Percentage of PLHIV enrolled in HIV care who were started on TPT and completed therapy, among all PLHIV enrolled in HIV care who were started on TPT according to national TB prevention treatment protocols during the reporting period.	Number of PLHIV enrolled in HIV care who were started on TPT and completed therapy during the reporting period	Number of PLHIV enrolled in HIV care who were started on TPT during the reporting period		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Other						
PT-13	Percent TPT patients LTFU	Percentage of eligible individuals who were started on TPT but were LTFU during the reporting period. *TPT lost to follow-up times are determined by WHO based on the type of TPT regimen.* *For example, a person is LTFU if TPT interrupted eight consecutive weeks or more for 6H (6 or 9 months of daily isoniazid monotherapy); four consecutive weeks or more for 3HP (3 months of rifapentine* plus *high dose isoniazid weekly), 3HR (3 months of daily rifampicin* plus *isoniazid), and 4R (4 months of daily rifampicin); and 10 consecutive days for 1HP (1 month of rifapentine* plus *isoniazid daily).*	Total number of eligible individuals who were started on TPT and were LTFU during the reporting period	Total number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: 1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary TB, and 2) PLHIV enrolled in HIV care	Contacts <5 years, contacts >5 years, PLHIV	
PT-14	Percent TPT patients interrupted due to ADR	Percentage of eligible individuals whose TPT was interrupted due to ADR during the reporting period.	Total number of eligible individuals who began on TB preventive treatment but whose treatment was interrupted due to development of ADR, during the reporting period	Total number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary TB, and (2) PLHIV enrolled in HIV care	Contacts <5 years, Contacts >5 years, PLHIV	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PT-15	Percent TPT patients developed TB during TPT	Percentage of eligible individuals on TPT who developed TB during prevention therapy during the reporting period.	Total number of eligible individuals who were started on TPT and developed TB during TPT, during the reporting period	Total number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary TB, and (2) PLHIV enrolled in HIV care		
PT-16	Percent TPT patients with baseline AST/ALT tests	Percentage of eligible individuals for TPT who had a baseline AST/ALT before initiation of prevention therapy during the reporting period.	Total number of eligible individuals who had baseline AST/ALT tests before initiation of TPT, during the reporting period	Total number of eligible individuals who were started on TPT according to national TPT protocols during the reporting period, which includes: (1) household contacts (adult and children <5) of people with bacteriologically confirmed pulmonary TB , and (2) PLHIV enrolled in HIV care	Contacts <5 years, contacts >5 years, PLHIV	

PREVENTION INDICATORS (PV)

Note:
*These indicators were required for the *Report to Congress on TB Prevention*
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PV-1	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person (according to national screening protocols) during the specified reporting period. *"Outside health facility" refers to TB screening activities in the community, including in and outside home settings (e.g., as part of contact investigation), routine outreach, and event-based screening carried out by community health workers or any other trained/qualified health personnel.* *"Screening" is defined at a minimum as verbal screening (for signs and symptoms) to identify symptomatic individuals that are then referred for further clinical evaluation or testing for TB disease. It also includes screening or assessment for TBI combined with or without testing for TBI by TST or IGRA.*	Number of individuals screened for TB disease and TBI outside of health facilities by community health worker or other qualified person according to national screening protocols during the specified reporting period	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PV-2	Number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TB infection (and/or tested for TBI) according to national screening protocols during the specified reporting period	Number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TBI according to national screening protocols during the specified reporting period *Every contact will first be assessed for active TB as per national protocols; once active TB has been ruled out, assessment for TBI becomes relevant.* *This indicator is calculated as "total number of contacts screened" minus "the number of contacts who were diagnosed with TB."* *TBI screening protocols may vary by country; some countries may screen using a screening test such as TST or IGRA.*	Number of contacts of bacteriologically confirmed pulmonary TB cases who were screened for TBI according to national screening protocols during the specified reporting period	N/A	If testing was used, disaggregate by type: TST, IGRA, or both	
PV-3	Number of eligible (ruled out for TB disease) individuals who started treatment for TB infection during the reporting year	Number of eligible (ruled out for TB disease) individuals who started treatment for TBI during the reporting year. *Eligible individuals are those who are ruled out for TB disease, and meet other criteria as specified in the national TB prevention treatment guidelines/protocols.* *This includes all household contacts (including children under 5) of bacteriologically confirmed pulmonary new and relapse TB cases notified and people living with HIV-enrolled in HIV care.*	Number of eligible (ruled out for TB disease) individuals who started treatment for TBI during the reporting year	N/A	The data should be disaggregated to three groups: 1) Children household contacts aged <5 years 2) Adult household contacts and contacts >5 years 3) PLHIV enrolled in HIV care	Please refer to indicator PT-1 for additional details

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
PV-4	Number of individuals who completed treatment for TBI during the reporting period	Total number of individuals who completed TPT according to national TPT protocols during the specified reporting period. *During a given reporting period, the cohort of people who started treatment will not necessarily be equal to the cohort of people who completed treatment of TBI.* *The data should be disaggregated to three groups:* 1) *Children household contacts aged <5 years* 2) *Adult household contacts and contacts >5 years* 3) *PLHIV enrolled in HIV care.*	Number of individuals who completed treatment for TBI during the reporting period	N/A	The data should be disaggregated to three groups: 1) Children household contacts aged <5 years 2) Adult household contacts and contacts >5 years 3) PLHIV enrolled in HIV care	

HEALTHCARE WORKER SCREENING INDICATORS (HW)

Note:
*HCWs are a specific group at risk for developing TB
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
HW-1	Percentage of HCWs screened for TB	Percentage of HCWs screened for active TB disease in line with national policy during the reporting period, among HCWs during the reporting period.	Number of HCWs screened for active TB disease in line with national policy during the reporting period	Number of HCWs during the reporting period who were working in the country in the public and private sector during the reporting period *WHO database: hcw_tot*		
HW-2	Percentage of HCWs screened positive for TB	Percentage of HCWs screened positive for active TB disease in line with national policy during the reporting period, among HCWs screened during the reporting period.	Number of HCWs screened positive for active TB disease in line with national policy during the reporting period	Number of HCWs screened during the reporting period		
HW-3	Percentage of HCWs diagnosed with TB disease	Percentage of HCWs diagnosed with active TB disease in line with national policy during the reporting period, among healthcare workers during the reporting period.	Number of HCWs diagnosed with active TB disease in line with national policy during the reporting period *WHO database: hcw_tb_infected*	Number of HCWs screened positive for active TB disease in line with national policy during the reporting period		Standard WHO indicator
HW-4	HCWs who were ruled out for TB disease	Number healthcare workers who were ruled out for TB disease during the reporting period.	Number HCWs who were ruled out for TB disease during the reporting period	*N/A*		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
HW-5	Percentage of HCWs tested for TBI	Percentage of HCWs tested for TBI among HCWs who were ruled out for TB disease.	Number of HCWs who were ruled out for TB disease and were tested for TBI.	Number of HCWs who were ruled out for TB disease during the reporting period		TBI screening protocols may vary by country. Some countries may screen using a screening test such as TST or IGRA Disaggregate by test type (TST, IGRA, or both)
HW-6	Percentage of HCWs tested positive for TBI among HCWs	Percentage of HCWs tested positive for TBI among HCWs who were ruled out for TB disease and tested for TBI during the reporting period.	Number of HCWs tested positive for TBI during the reporting period	Number of HCWs who were ruled out for TB disease, and were tested for TBI		TBI screening protocols may vary by country; some countries may screen using a screening test such as TST or IGRA Disaggregate by test type (TST, or IGRA, or both)
HW-7	PLHIV: HCWs who were ruled out for TB disease, and are PLHIV	Number of HCWs who were ruled out for TB disease, and are PLHIV, during the reporting period.	Number of HCWs who were ruled out for TB disease, and are PLHIV, during the reporting period	N/A		
HW-8	PLHIV: HCWs who were ruled out for TB disease, are PLHIV, and *were initiated on TPT*	Number of HCWs who were ruled out for TB disease, are PLHIV, and *were initiated on TPT* during the reporting period.	Number of HCWs who were ruled out for TB disease, are PLHIV, and *were initiated on TPT* during the reporting period	N/A		
HW-9	Contacts: HCWs who were ruled out for TB disease, and are eligible household contacts	Number of HCWs who were ruled out for TB disease and are eligible household contacts of bacteriologically confirmed pulmonary TB patient, during the reporting period.	Number of HCWs who were ruled out for TB disease, and are eligible household contacts of bacteriologically confirmed pulmonary TB patient, during the reporting period	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
HW-10	Contacts: HCWs who were ruled out for TB disease, are eligible household contacts, and *were initiated on TPT*	Number of HCWs who were ruled out for TB disease, are eligible household contacts of bacteriologically confirmed pulmonary TB patient and *were initiated on TPT* during reporting period.	Number of HCWs who were ruled out for TB disease, are eligible household contacts of bacteriologically confirmed pulmonary TB patient, and *were initiated on TPT* during the reporting period	N/A		
HW-11	TBI-positive: HCWs who were ruled out for TB disease, and are neither PLHIV nor eligible HH contacts, and tested positive for TBI during the reporting period	Number of HCWs who were ruled out for TB disease, and are neither PLHIV nor eligible HH contacts, and tested positive for TBI during the reporting period.	Number of HCWs who were ruled out for TB disease, and are neither PLHIV nor eligible household contacts, and tested positive for TBI during the reporting period	N/A		TBI screening protocols may vary by country; some countries may screen using a screening test such as TST or IGRA Disaggregate by test type (TST, or IGRA, or both)
HW-12	TBI-positive: HCWs who were ruled out for TB disease, are neither PLHIV nor eligible household contacts, tested positive for TBI and *were initiated on TPT*	Number of HCWs who were ruled out for TB disease, are neither PLHIV nor eligible household contacts, tested positive for TBI and *were initiated on TPT* during the reporting period.	Number of HCWs who were ruled out for TB disease, are neither PLHIV nor eligible household contacts, tested positive for TBI and *were initiated on TPT* during the reporting period	N/A		National guidelines are different; follow the national guidelines and policies on healthcare worker initiation on TPT
HW-13	HCWs who completed TPT	Number of HCWs who were started on TPT and completed therapy during the reporting period.	Number of HCWs who were started on TPT and completed therapy during the reporting period	N/A	PLHIV, contacts, TBI-positive	

SUSTAINABILITY (SN)

Note:
*This section includes indicators in the subcategories of (1) Finance; (2) Policies and Guidelines; (3) Governance; and Procurement and Supply Chain Management
*DR-TB includes RR-TB/MDR-TB and XDR
*All percentages calculated: (Numerator/Denominator) x100
*Red shading highlights core indicators
*NTP=National TB Program

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Finance						
SN-1	Percent of TB financing expected from domestic sources	Percentage of NTP's budget expected to be funded from domestic sources out of all sources (domestic, the GF, USAID, and other sources including loans) during the reporting period (in US dollars).	NTP's budget expected to be funded from domestic sources (including loans) during the reporting period (in US dollars) WHO database: *cf_tot_domestic*	NTP's budget expected to be funded from all sources (domestic, the GF, USAID, and other sources including loans) during the reporting period (in US dollars) WHO database: *cf_tot_sources*		Standard WHO indicator
SN-2	Total funding received for TB	Total funding received during the reporting period (domestic, GF, USAID, and other sources).	Total funding received during the reporting period from all sources (domestic [including loans], GF, USAID, and other sources) (in US dollars) WHO database: *rcvd_tot_sources*	N/A	By domestic, GF, USAID, or other sources	Standard WHO indicator

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-3	Percent of TB financing received from domestic sources	Percentage of NTP budget received financed from domestic sources (including loans) during the reporting period.	Total TB program funding received during the reporting period from domestic sources (including loans) (in US dollars) *WHO database: rcvd_tot_domestic*	Total funding received during the reporting period from all sources (domestic, GF, USAID, other sources) (in US dollars) *WHO database: rcvd_tot_sources*		
SN-4	Domestic funding for drugs	Use of domestic funding for TB FLD and/or SLD procurement during the reporting period. Specify if domestic funding was used to procure any FLDs, any SLDs, both, or neither. Use the following scoring system: 0 = No domestic funding for TB drugs 1 = Domestic funding for some FLDs 2 = Domestic funding for all FLDs 3 = Domestic funding for some or all SLDs but no FLDs 4 = Domestic funding for both FLDs and SLDs (but not all of them) 5 = Domestic funding for all FLDs and all SLDs	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-5	Domestic funding for lab commodities	Use of domestic funding for TB lab commodities procurement during the reporting period. Specify if domestic funding was used to procure any lab commodity procurement indicated below, answering Yes/No: 1 = Domestic funding for WRD test cartridges and kits (e.g., Xpert, TrueNat etc.): Yes/No 2 = Domestic funding for WRD instruments: Yes/No 3 = Domestic funding for non-WRD testing instruments and reagents (e.g., SL-DST, culture etc.): Yes/No 4 = Domestic funding for diagnostic data connectivity/management: Yes/No 5 = Domestic funding for sample transport systems: Yes/No	Score one point for each line item answered "Yes," with a maximum score of 5.	N/A		
SN-6	Capacity of NTP for absorption of domestic funding (in reporting year)	Capacity of NTP for absorption of domestic funding is measured as the proportion of expenditure out of funding from domestic sources in the reporting year, expressed as a percentage. Use the following scoring system: 0 = <85% 1 = 85-94% 2 = 95% and above	Choose corresponding score	N/A		
SN-7	Capacity of NTP for absorption of funds from GF	Capacity of NTP for absorption of funds from GF is measured as the proportion of expenditure out of most recent funding from GF, expressed as a percentage. Use the following scoring system: 0 = <85% 1 = 85-94% 2 = 95% and above	Choose corresponding score	N/A		
SN-8	Social protection	Country has social protection schemes and health insurance systems for TB patients.	Total score is the sum of SN-8A and SN-8B, with a maximum score of 4	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-8A	Social protection scheme available	Country has social protection schemes for TB patients. Total score is sum of scores for A, B, and C, multiplied by 2/3. A – Employment protection B – Cash transfer/reimbursement C – Nutrition support Use the following scoring system for each 0 = Not available 0.5 = Available partially 1 = Available for all patients	Total score is sum of A-C, multiplied by 2/3	N/A		
SN-8B	Availability of social health insurance system covering TB in the country	Country has a social health insurance system covering TB (e.g., under universal healthcare, etc.). Use the following scoring system: 0 = No social health insurance, or if social health insurance available but TB & DR-TB (diagnosis and treatment costs) are excluded from it, or if these are available only partially (not all patients) 1 = Social health insurance is available and TB & DR-TB (diagnosis and treatment costs) are included in it for all the people in the country 2 = Social health insurance is available and TB & DR-TB (diagnosis and treatment costs) are included in it for all the people in the country; and the proportion of total costs covered by the insurance averts catastrophic costs for patients	Choose corresponding score	N/A		
SN-9	Percent of TB patients covered by insurance	Percentage of notified TB patients (new and relapse), whose TB clinical care (diagnosis and treatment) cost was covered by insurance, out of total number of TB patients (new and relapse) notified during the reporting period.	Total number of new and relapse TB patients notified during the reporting period whose clinical care (diagnosis and treatment) cost is paid by insurance	Total number of TB patients (new and relapse) notified during the reporting period	Full coverage, partial coverage, age (0-14, 15 and above), gender	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-10	Catastrophic costs related to TB care	Percentage of TB-affected households who incur catastrophic costs due to TB.	Total number of TB-affected households who incur catastrophic costs due to TB	Total number of TB-affected households		Costs included are not only direct medical payments for diagnosis and treatment, but also direct non-medical payments (e.g., for trans-portation and lodging) and indirect costs (e.g., lost income). Catastrophic total costs are defined as costs that account for 20% or more of total annual household income. For data sources please refer to latest WHO data.
Policies and Guidelines	Data for indicators SN-11 to SN-20 can be extracted from Stop TB Partnership "Out of Step" report					
TB Diagnosis						
SN-11	Use of rapid molecular diagnostic testing (WHO-recommended rapid test) WRD	The national guidelines indicate use of a rapid molecular diagnostic test as the initial diagnostic test for all presumptive TB cases. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-12	Universal DST	National guidelines indicate that every bacteriologically confirmed TB case is tested at least for rifampicin (RIF) resistance. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
TB Treatment						
SN-13	New WHO DR-TB treatment guidelines	NTP fully adopted the most recent WHO DR-TB treatment guidelines. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
SN-14	Pediatric TB treatment	National policies indicate using pediatric FDC (RHZ) to treat DS-TB. (FDC=fixed-dose-combination RHZ (75/50/150). Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
Models of Care						
SN-15	Self-administered DS-TB treatment	National policies allow people with DS-TB to take their TB medication as self-administered treatment. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-16	Non-admission to initiate DR-TB treatment	National policies do not require admission to initiate DR-TB treatment. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
SN-17	Special social support for DR-TB treatment	National policies indicate special social support for people receiving DR-TB treatment. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
TB Prevention						
SN-18	TB screening	National policies indicate routine TB screening for all contacts (children and adults). Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
SN-19	TBI TPT	National policies indicate the following (SN-19A, SN-19B, and SN-19C) as target groups for TBI treatment:	N/A	N/A		
SN-19A		Household contacts, age <5. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
SN-19B		Household contacts, age >5. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-19C		PLHIV. Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
SN-20	Regimen for TBI	National policies indicate the use of a shorter TBI regimen (3HP, 3RH, 4R, 1HP). Use the following scoring system: 0 = No 1 = Yes	Choose corresponding score	N/A		
Governance						
Transparency and Public Visibility						
SN-21	NTP ownership of tools for public visibility	NTP has a website (or a web page on the MOH website) that allows for public visibility. Use the following scoring system: 0 = No NTP website/web page available on MOH website and no organogram and contact details of NTP 1 = NTP Web page/ website is available, but no NTP organogram or contact details of NTP available 2 = Website/web page available and either organogram or contact details of NTP are available 3 = Website/web page available, and both organogram and contact details of NTP available 4 = A working NTP website with latest organogram and contact details of NTP, and contact details of individual NTP officials available	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-22	Case notification data publicly available on NTP website/ MOH	Public availability and visibility of latest case notification data on the NTP website/web page. Use the following scoring system: 0 = Data not available, or available but outdated (2 years old or more) 1 = Data available, but 1 year old 2 = Data available, recent (to last quarter), national level only 3 = Data available, recent (to last quarter), disaggregated by province (subnational data) 4 = Data available, provincial level, real-time data updated daily on the national website	Choose corresponding score	N/A		
SN-23	TB technical guidelines publicly available on the NTP website/MOH	Public availability and visibility of latest TB technical guidelines (for drug-resistant TB, and TB preventive therapy) on the NTP website/web page. Refer to most recent guidelines by WHO to determine if national guidelines were updated or not. A – National DR-TB guidelines available B – National TPT guidelines available Use the following scoring system. 0 = Not published on the NTP website/web page 1 = Guidelines published on the website/web page but are outdated (2 years-old or more) 2 = Guidelines published on the website/ web page, and are updated (1 year-old or less)	The score is the total of A & B both, (each of which has a maximum score of 2)—maximum score for this indicator is 4	N/A		
SN-24	TB NSP publicly available on the NTP website/ web page	Public availability and visibility of ***the most recent*** NSP on the NTP website/ web page. Use the following scoring system: 0 = NSP not available on the website/web page, or available but outdated 1 = Draft NSP is available on the website 2 = Approved NSP (without budget) is available on the website 3 = Approved NSP (with budget) is available on the website	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-25	Annual budget of NTP is publicly available	Public availability and visibility of the most recent NTP annual budget on the NTP website/web page or WHO database. Use the following scoring system: 0 = Current NTP annual budget is not available on the NTP/MOH website, and not on WHO database 1 = Current NTP annual budget is available either on the NTP/MOH website or on WHO database	Choose corresponding score	N/A		
SN-26	Status of TB joint program review (JPR) or joint monitoring mission (JMM)	JPR or JMM is a periodic TB program review with the inclusion of external partners and stakeholders. The score is the total of SN-26A and SN-26B both, each of which has a maximum score of 2.	Total JPR/JMM status score is SN-26A plus the score of SN-26B	N/A		
SN-26A	JPR/JMM was conducted recently	JPR/JMM status. Use the following scoring system: 0 = JPR/JMM was conducted more than 3 years ago, or no JPR/JMM has been conducted 1 = JPR/JMM was conducted 2-3 years ago 2 = JPR/JMM was very recent—conducted less than 2 years ago	Choose corresponding score	N/A		
SN-26B	Availability of final JPR/JMM report	JPR/JMM report status. Use the following scoring system: 0 = No JPR/JMM report available, (or available report is outdated—related to a JPR/JMM conducted more than 3 years ago), or no JPR/JMM has been conducted 1 = Draft of most recent JPR/JMM report is available (debriefing PowerPoints are considered as draft) 2 = Final most recent JPR/JMM report is available (either publicly available on NTP website/web page or document is available with NTP)	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-27	Partnership statement adoption and implementa-tion	Country partnership statement status. Use the following scoring system: 0 = No partnership statement signed yet 1 = Country partnership statement has been signed 2 = Country partnership meeting conducted (at least once) during the reporting period to discuss joint progress 3 = Country partnership statement updated	Choose corresponding score	N/A		
Legal Framework						
SN-28	Mandatory notification	TB notification is mandated by the government. Use the following scoring system: 0 = Not mandated by government 2 = Mandatory in some provinces, or in the process of being made mandatory (partial) 4 = Mandatory (full)	Choose corresponding score	N/A		
SN-29	Anti DR-TB drugs listed on the country's national essential medicines list (NEML)	Country has all WHO Group A and B DR-TB drugs listed on their NEML. This is a Stop TB Partnership indicator (refer to guidelines). Use the following scoring system: 0 = if marked Red 1 = if marked Orange 3 = if marked Green	Choose corresponding score	N/A		
SN-30	Anti DR-TB drug availability for patients for free	All WHO Group A and B DR-TB drugs listed on the Country's NEML (see previous indicator) are available free for DR-TB patients. Use the following scoring system: 0 = Not free 1 = Available for free	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-31	TB training module/ guidance contain information on human rights issues	TB training module/guidance contain information on human rights issues for TB patients that address the following three elements: Confidentiality, Privacy, and Freedom from discrimination. Use the following scoring system: 0 = None of the documents mention human rights or any of the three elements (or only mentioned in NSP) 1 = One element (out of 3 elements) is addressed in patient charter, or TB guidelines/training materials 2 = Two elements (out of 3 elements) are addressed in patient charter, or TB guidelines/training materials 3 = All three elements are addressed in patient charter 4 = All three elements are addressed in any TB guidelines/training material (in addition to charter or standards of TB care)	Choose corresponding score	N/A		
SN-32	TB stigma reduction	TB stigma reduction featured and measured in the NSP in addition to stigma assessment/gap analysis conducted highlighting the following three elements: Interventions Indicators Assigned budget line Use the following scoring system: 0 = No mention of any of those three elements in the NSP 1 = One element (out of 3 elements) is indicated and included in the NSP, but stigma assessment has not been done earlier 2 = Two elements (out of 3 elements) are indicated and included in the NSP, but stigma assessment has not been done earlier 3 = All three elements are indicated and included in the NSP, but stigma assessment has not been done earlier 4 = Interventions are based on stigma assessment done earlier and NSP mentions the findings of stigma assessment; communication strategy/interventions align with it and specifically mention stigma as one of the objectives of communication	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
Process Efficiency and Effectiveness						
SN-33	Approval process efficiency	The efficiency of the approval processes for NTP training requests.	Total score is the sum of SN-33A and SN-33B scores, with a maximum score of 4	N/A		The final approved NSP and/or annual budget (or any other such document with prior approval, for instance, at the beginning of the financial year), enables the NTP to move forward and implement without requiring additional approvals by other ministry officials. If approvals are required, the process takes less than a week as TB activities have already been prioritized.
SN-33A	Approval process efficiency – A	Average number of authorization signatures required to complete the approval process of a request presented by NTP manager for organization of training. Use the following scoring system: 0 = 3 or more signatures are required to authorize process 1 = 1-2 signatures are required to authorize process 2 = No further signatures required	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-33B	Approval process efficiency-B	Average time to obtain MOH approval/authorization of training request authorized by NTP manager (process turnaround time). Use the following scoring system: 0 = 2 weeks or more 1 = 1 week to <2 weeks 2 = <1 week	Choose corresponding score	N/A		
SN-34	NTP manager empowerment in the organizational hierarchy	Number of officials in the hierarchy between the NTP manager and health minister. Use the following scoring system: 0 = >2 officials in the hierarchy between the NTP manager and the health minister 2 = 2 officials or less are in the hierarchy between the NTP manager and the health minister	Choose corresponding score	N/A		
SN-35	NTP capacity	Total number of NTP staff and consultants (working for at least 1 year duration)	Total number of NTP staff and consultants (working for at least 1 year duration)	N/A		
SN-36	Effective NTP capacity	NTP has an effective capacity in relation to population, TB burden, and number of provinces. The total score is the sum of SN-36A, SN-36B, and SN-36C (each has score of 0 or 1) AND then multiply the total score by 4/3 to get a max score of 4.	The total score is sum of SN-36A-C (each has score of 0 or 1) AND multiply the total score by 4/3 to get a max score of 4	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-36A	Effective NTP capacity in relation to population	Effective capacity of NTP measured in relation to total population (in millions) is measured as follows: Population (in millions) divided by number of staff. Use the following scoring system: 0 = if >1 1 = if 1 or less in small countries (if 10 or less in big countries) (small countries are countries with population of 50M or less)	Choose corresponding score	N/A		
SN-36B	Effective NTP capacity in relation to TB burden	Effective capacity of NTP measured in *relation to TB burden* is measured as follows: Total estimated TB incidence in numbers divided by number of staff. Use the following scoring system: 0 = if more than 10,000 1 = if 10,000 or less (if 50k or less in big countries)	Choose corresponding score	N/A		
SN-36C	Effective NTP capacity in relation to number of provinces	Effective capacity of NTP measured in *relation to number of provinces* is measured as follows: Number of provinces divided by number of staff. Use the following scoring system: 0 = if more than 0.5 1 = if 0.5 or less	Choose corresponding score	N/A		
Inclusiveness						
SN-37	Social contracting with govt. funds (NGOs/ private sector)	Availability of social contracting with government funds (NGOs/private sector). Group score is the average of SN-37A and SN-37B, ranging in score from 0 as least and 4 as most available.	Group score is average of SN-37A and SN-37B	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-37A	A – Inclusiveness of NGOs in social contracting	Social contracting mechanisms (policy, guidelines, tendering, and contracting) are available to contract NGOs with government funds (not GF funds). There are 4 elements to consider: • Policy available • Guidelines available • Tendering: Contracting has been done at the national level only (evidence available) in the last 2 years • Tendering: Contracting done at more than 50% of the subnational entity Use the following scoring system: 0 = No policy or guidelines and no tendering have been done using government funds 1 = Either policy or guidelines are available or if tendering has been done at the national level, with no policies or guidelines 2 = 2 of 4 elements are present (policy, guidelines, and tendering at the national or subnational level) or if tendering has been done at the national and subnational levels without policy or guidance 3 = 3 of 4 elements are present 4 = All 4 elements are present—policy and guidelines are present and tendering has been done at national and more than 50% of the subnational levels	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-37B	B – Inclusiveness of private sector in social contracting	Social contracting mechanisms (policy, guidelines, tendering, and contracting) are available to contract the private sector with government funds (not GF funds). There are four elements to consider: • Policy available • Guidelines available • Tendering: Contracting has been done at the national level only (evidence available) in the last 2 years • Tendering: Contracting done at more than 50% of the subnational entity Use the following scoring system: 0 = No policy or guidelines and no tendering has been done using government funds 1 = Either policy or guidelines are available or if tendering has been done at the national level, with no policies or guidelines 2 = 2 of 4 elements are present (policy, guidelines, and tendering at the national or subnational levels) or if tendering has been done at the national and subnational levels without policy or guidance 3 = 3 of 4 elements are present 4 = All 4 elements are present—policy and guidelines are present and tendering has been done at national and more than 50% of the subnational levels	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-38	Inclusiveness of key populations (KPs)	NSP has activities, an indicator, or budget line, or a combination thereof included for the indicated KP. The following four elements are considered for scoring: ● Four or more TB key populations listed in NSP (children, prisoners, PLHIV, and any additional KP) ● KP prioritization exercise done ● Indicators and budget given in NSP for each KP ● Action plan formulated Note: Each element carries a score of 1 (indicators and budget have 0.5 each). Use the following scoring system: 0 = if KPs not mentioned at all and no activity done for identification of KPs 1 = 1 of 4 elements is present 2 = 2 of 4 elements are present 3 = 3 of 4 elements are present 4 = All 4 elements are present: Four or more KPs for TB are listed in NSP, formal prioritization for TB key population has been done, indicators and budget are given individually for all KPs, and an action plan has been formulated.	Choose corresponding score	N/A		
SN-39	Inclusiveness of civil society/ TB survivors	Civil societies and TB survivors are involved with NTP. The score is a total of SN-39A, SN-39B, SN-39C, and SN-39D.	Total score of SN-39A plus B plus C plus D	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-39A	A – NTP consults with TB civil society/ TB survivors to review progress.	NTP consulted with TB civil society/TB survivors to review progress in reporting year. Use the following scoring system: 0 = NTP did not consult with TB civil society/TB survivors to review progress in reporting year 0.5 = Civil society/TB survivors were consulted at national or subnational level only 1 = Civil society/TB survivors were consulted at both national and subnational levels	Choose corresponding score	N/A		
SN-39B	B – NTP invites TB civil society/ TB survivors to participate in JPR/JMM/ external reviews	NTP invited TB civil society/TB survivors to participate in the most recent JPR/JMM/external reviews. Use the following scoring system: 0 = Civil society/TB survivors did not participate in the most recent JPR/JMM/external review 1 = Civil society/TB survivors participated in the most recent JPR/JMM/external review	Choose corresponding score	N/A		
SN-39C	C – NTP consults with civil society and TB survivors to develop the NSP and donor proposals	NTP consulted with civil society and TB survivors to develop the latest NSP and donor proposals. Use the following scoring system: 0 = NTP did not consult with civil society/TB survivors to develop the latest NSP and donor proposals 1 = NTP consulted with civil society/TB survivors to develop the latest NSP and donor proposals	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-39D	D – Civil society/TB survivors involved in TB research development / planning, implementa-tion, and dissemination	Civil society/TB survivors are involved in TB research development/planning, implementation, and dissemination. Use the following scoring system: 0 = Civil society/TB survivors have not participated in any research activity in the last two years 1 = Civil society/TB survivors have participated in research activity (research planning, implementation, or dissemination of research findings) in the last two years	Choose corresponding score	N/A		
SN-40	Inclusiveness of community (not organized) and subnational entities	Availability of platforms to enable community (not organized) and subnational entities to provide feedback to the NTP. The score is a total of SN-40A and SN-40B.	Total score of SN-40A plus SN-40B	N/A		
SN-40A	Community (not organized) feedback obtained	Platform(s) exist(s) for obtaining feedback from the community– e.g., standing bodies, meetings, apps, etc. Use the following scoring system: 0 = No platform for feedback from the community 1 = Platform exists for community feedback (one-impact app, member of TWG, patient feedback survey, etc.)	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-40B	Subnational government entities feedback obtained	Platform(s) exist(s) for obtaining feedback from subnational government entities and subnational entities make use of (NSP consultation, program review, JPR, JMM). Use the following scoring system: 0 = Subnational entities does not participate in any of the three available platforms (NSP consultation, program review, JPR, JMM) 1 = Subnational entities participate in any one of the three available platforms (NSP consultation, program review, JPR, JMM) 2 = Subnational entities participate in two of the three available platforms 3 = Subnational entities participate in all three available platforms	Choose corresponding score	N/A		
SN-41	Inclusiveness of gender	Inclusiveness of gender in TB. Sum of scores of SN-41A, SN-41B, SN-41C, SN-41D, SN-41E, and SN-41F (each with a score of 1) multiplied by 4/6.	Sum of scores of SN-41A-F (each with a score of 1) multiplied by 4/6	N/A		
SN-41A	A – NTP staff undertake TB and gender sensitization/ training	NTP staff undertake TB and gender sensitization/training (within the last two years). Use the following scoring system: 0 = No training 1 = At least 50% of the staff have taken training	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-41B	B – Male-female ratio of NTP and provincial managers	Male-female ratio of NTP and provincial managers. Use the following scoring system: 0 = Less than 50% of provincial TB managers are women 1 = 50% or more of provincial TB managers are women	Choose corresponding score	N/A		
SN-41C	C – TB gender assessment report	TB gender assessment report available for the country. Use the following scoring system: 0 = TB gender assessment report is NOT available for the country 1 = TB gender assessment report is available for the country	Choose corresponding score	N/A		
SN-41D	D – NSP highlights gender inclusiveness in TB services and programs	NSP highlights gender inclusiveness in TB services and programs. Use the following scoring system: 0 = NSP does NOT highlight gender inclusiveness in TB services and programs 1 = NSP highlights gender inclusiveness in TB services and programs	Choose corresponding score	N/A		
SN-41E	E – Women TB survivors included in any NTP event in reporting year	Women TB survivors included in any NTP event in reporting year. Use the following scoring system: 0 = Women TB survivors were NOT included in any NTP event in reporting year 1 = Women TB survivors were included in any NTP event in reporting year	Choose corresponding score	N/A		

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-41F	F – Gender disaggregated data for treatment outcome available for most recent reported cohort	Gender disaggregated data for treatment outcome available for most recent reported cohort. Use the following scoring system: 0 = Gender disaggregated data for treatment outcome NOT available for most recent reported cohort 1 = Gender disaggregated data for treatment outcome are available for most recent reported cohort	Choose corresponding score	N/A		
Procurement and Supply Chain Management						
SN-42	Stockout of first-line TB treatment drugs	Occurrence of stockout of one or more FLD for TB treatment at any TB treatment site (i.e., Basic Management Unit) or drug storage facility during the reporting period (quarter/annual). *WHO defines a stockout as the complete absence of a required drug at a storage point or delivery point for at least one day.*	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of TB treatment drugs 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	
SN-43	Stockout of second-line TB treatment drugs	Occurrence of stockout of one or more SLD for TB treatment at any TB treatment site or drug storage facility during the reporting period (quarter/annual). *WHO defines a stockout as the complete absence of a required drug at a storage point or delivery point for at least one day.*	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of TB treatment drugs 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	
SN-44	Stockout of TB diagnostic products	Occurrence of stockout of one or more replenishable TB diagnostic products at any TB diagnostic facility (e.g., Basic Management Unit) or storage facility (central or subnational) at the end of reporting period (quarter/annual). *WHO defines a stockout as the complete absence of a required drug at a storage point or delivery point for at least one day.*	This is a Yes/No response for the initial part of the indicator Only if yes, then detailed disaggregated data are provided	1) Generic names of replenishable TB diagnostic product 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	

Ref #	Indicator	Definition	Numerator	Denominator	Potential Disaggregation	Comments
SN-45	First-line TB treatment drugs past expiration	Presence of a stock of one or more FLD for TB treatment past expiration date at any TB treatment site (i.e., Basic Management Unit) or drug storage facility during the reporting period (quarter/year).	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of TB treatment drugs 2) Geographic locations 3) Treatment site/drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	
SN-46	Second-line TB treatment drugs past expiration	Presence of a stock of one or more SLD for TB treatment past expiration date at any TB treatment site (i.e., Basic Management Unit) or drug storage facility during the reporting period (quarter/year).	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of TB treatment drugs 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	
SN-47	Replenishable TB diagnostic products past expiration	Occurrence of a stock of one or more replenishable TB diagnostic products past expiration date at any TB diagnostic site (e.g., Basic Management Unit) or drug storage facility at the end of reporting period (quarter/year).	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of replenishable TB diagnostic product 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	
SN-48	Stockouts of child-friendly formulations for TB treatment	Occurrence of a stockout of one or more child-friendly formulations for TB treatment at any TB diagnostic site (e.g., Basic Management Unit) or drug storage facility at the end of reporting period (quarter/year). *WHO defines a stockout as the complete absence of a required drug at a storage point or delivery point for at least one day.*	This is a Yes/No response for the initial part of the indicator Only if Yes, then detailed disaggregated data should be provided	1) Generic names of replenishable TB diagnostic product 2) Geographic locations 3) Treatment site/ drug storage facility 4) Central/regional/ district level 5) Length of stockout	Routine logistic reports (e.g., LMIS); SARA; routine supervisory reports	

A reliable, effective procurement and supply chain management (PSCM) is the backbone of the TB program to ensure:

- All TB medicines are available to the patient for treatment without any interruption.
- All TB diagnostics and supplies are available in the healthcare centers where presumptive TB patients are diagnosed.
- Regular and timely delivery of the TB products to the health centers.
- Quality assurance is adhered to and affordably priced products are delivered on time.

An effective and reliable PSCM depends on:

- Timely, reliable quantification of TB products (medicines; diagnostics), which is based on:
    - Regular inflow of information from the periphery to the center which gives the consumption, stock in balance, and the quantities need for the next cycle.
    - Available tool/s for quantification and timely placement of a "Procurement Order" keeping in mind the "Lead time".

During visit to the program and for the purpose of evaluation; indication of an effective PSCM would be:

- No STOCKOUT of any TB medicine used in the treatment.
- No STOCKOUT of any diagnostic products used in the healthcare center.
- NO EXPIRY of products both medicines and diagnostics as a result of underutilization or overstocking due to incorrect quantification (over-ordering).

With overstocking, one would need to consider underutilization as a result of changes in the treatment regimens as recommended by WHO; for example, shortened treatment regimens for DR-TB; and the use of second-line injectables that are no longer recommended.

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