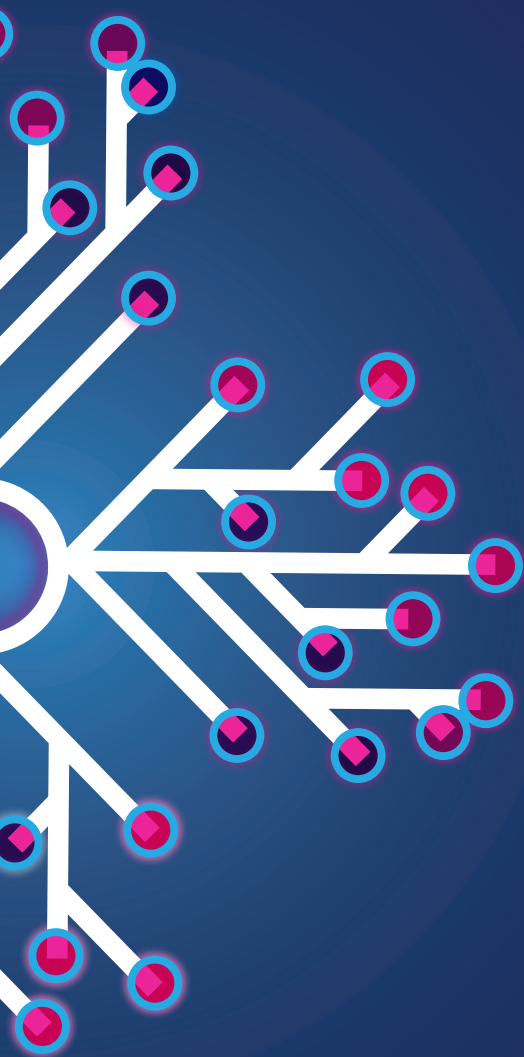


Consolidated guidance on tuberculosis data generation and use  
Module 1

# Tuberculosis surveillance

## Web Annex D

Reporting of aggregated data and calculation of core indicators:  
templates and formulae



World Health  
Organization



# **Tuberculosis surveillance**

## **Web Annex D**

Reporting of aggregated data and calculation of core indicators:  
templates and formulae

Consolidated guidance on tuberculosis data generation and use. Module 1. Tuberculosis surveillance. Web Annex D. Reporting of aggregated data and calculation of core indicators: templates and formulae

ISBN 978-92-4-008092-8 (electronic version)

© World Health Organization 2024

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: “This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition”.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<http://www.wipo.int/amc/en/mediation/rules>).

**Suggested citation.** Web Annex D. Reporting of aggregated data and calculation of core indicators: templates and formulae. In: Consolidated guidance on tuberculosis data generation and use. Module 1: Tuberculosis surveillance. Geneva: World Health Organization; 2024. Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at <http://apps.who.int/iris>.

**Sales, rights and licensing.** To purchase WHO publications, see <https://www.who.int/publications/book-orders>. To submit requests for commercial use and queries on rights and licensing, see <https://www.who.int/copyright>.

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

This publication forms part of the document entitled Consolidated guidance on tuberculosis data generation and use. Module 1. Tuberculosis surveillance. It is being made publicly available for transparency purposes and information.

# Contents

<b>Chapter 1. Template for annual reporting of aggregated data in a paper-based surveillance system</b>	<b>1</b>
<b>Chapter 2. Template for quarterly reporting of aggregated data in a paper-based surveillance system</b>	<b>7</b>
<b>Chapter 3. How to calculate the totals required to complete the templates</b>	<b>11</b>
<b>Chapter 4. Additional elements that are recommended, or that may be considered for inclusion, in countries with a case-based digital surveillance system</b>	<b>29</b>
<b>Chapter 5. Calculating indicators from aggregate totals</b>	<b>33</b>



# Chapter 1

## Template for annual reporting of aggregated data in a paper-based surveillance system

Facility name \_\_\_\_\_

Report for calendar year \_\_\_\_\_

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

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

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

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

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

### Block 2 All people with new episodes of TB (REG.11: see Block 1) by age group and sex

	0–4	5–9	10–14	15–19	20–24	25–34	35–44	45–54	55–64	≥65	Age unknown/ not recorded
Female	REG.13	REG.14	REG.15	REG.16	REG.17	REG.18	REG.19	REG.20	REG.21	REG.22	REG.23
Male	REG.24	REG.25	REG.26	REG.27	REG.28	REG.29	REG.30	REG.31	REG.32	REG.33	REG.34
Total <sup>a</sup>	REG.35 = Sum of REG.13 to REG.34										

<sup>a</sup> The total should be the same as the total number of new episodes of TB in Block 1 (REG.11).

### Block 3 HIV testing and ART coverage among all people with new episodes of TB (REG.11: see Block 1)

With documented HIV status	REG.36
HIV-positive	REG.37
HIV-positive on antiretroviral treatment	REG.38

**Block 4 Rifampicin susceptibility testing among people with pulmonary bacteriologically confirmed TB (REG.1, REG.2, REG.3 and REG.8: see Block 1)**

	Among those who have never been treated for TB (REG.1)	Among those previously treated for TB (recurrent REG.2 + re-registered REG.8)	Among those with unknown previous treatment history (REG.3)	Total
With documented test result for rifampicin	DST.1	DST.2	DST.3	$DST.4 = DST.1 + DST.2 + DST.3$
Resistant to rifampicin (RR-TB)	DST.5	DST.6	DST.7	$DST.8 = DST.5 + DST.6 + DST.7$

**Block 5 Isoniazid susceptibility testing among people with pulmonary bacteriologically confirmed TB who have also had rifampicin susceptibility testing (DST.1 and DST.2: see Block 4)**

	Among those with a documented test result for rifampicin who have never been treated for TB (DST.1)		Among those with a documented test result for rifampicin who are previously treated (DST.2)	
	Susceptible to isoniazid	Resistant to isoniazid	Susceptible to isoniazid	Resistant to isoniazid
Susceptible to rifampicin	DST.9	DST.10	DST.14	DST.15
Resistant to rifampicin	DST.11	DST.12	DST.16	DST.17
Total tested for both rifampicin and isoniazid	$DST.13 = DST.9 + DST.10 + DST.11 + DST.12$		$DST.18 = DST.14 + DST.15 + DST.16 + DST.17$	

**Block 6 Fluoroquinolone susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant TB (RR-TB) (DST.8: see Block 4)**

RR-TB with documented test result for fluoroquinolones	DST.19
RR-TB and resistant to any fluoroquinolones (pre-XDR-TB)	DST.20

**Block 7 Bedaquiline and/or linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant TB (RR-TB) and fluoroquinolone-resistant TB (pre-XDR-TB) (DST.20: see Block 6)**

	No documented test results for bedaquiline	Susceptible to bedaquiline	Resistant to bedaquiline (XDR-TB)
No documented test results for linezolid	DST.21	DST.22	DST.23
Susceptible to linezolid	DST.24	DST.25	DST.26
Resistant to linezolid (XDR-TB)	DST.27	DST.28	DST.29
Total number with XDR-TB	$DST.30 = DST.23 + DST.26 + DST.27 + DST.28 + DST.29$		



**Block 8 Enrolment on treatment among all registered people diagnosed with TB disease (REG.12: see Block 1)**

Include all new TB episodes and all people re-registered for TB, including those with unknown previous treatment history.

(The shaded columns are optional, but could be used to help calculate cohort size)

Registered in this facility <sup>a</sup>	Transferred <b>in</b> to start treatment after registration in another facility	Transferred <b>out</b> after registration to start treatment in another facility	Net registered in this facility after accounting for transfers	Died before treatment started	Lost to follow-up before treatment started <sup>b</sup>	Started on treatment in this facility <sup>c</sup>
<i>ENR.1a</i>	<i>ENR.1b</i>	<i>ENR.1c</i>	$ENR.1 = (ENR.1a + ENR.1b - ENR.1c)$	<i>ENR.2</i>	<i>ENR.3</i>	$ENR.4 = (ENR.1 - ENR.2 - ENR.3)$

**Number started treatment in this facility by regimen type**

Regimen type appropriate for the person	Started on treatment in this facility <sup>d</sup>
Regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status)	<i>ENR.5</i>
Regimens designed to treat rifampicin-susceptible TB (people living with HIV)	<i>ENR.5.H</i>
Short (≤12 months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB)	<i>ENR.6</i>
Long (>12 months and ≤24 months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB)	<i>ENR.7</i>

<sup>a</sup> Registered column (*ENR.1a*) must be equal to sum of **Block 1** (REG.12).

<sup>b</sup> Includes people who did not start treatment for any reason.

<sup>c</sup> Includes people transferred in to start treatment and excludes those who died, were lost to follow-up or transferred out before the start of treatment.

<sup>d</sup> Sum of (*ENR.5 + ENR.6 + ENR.7*) must be equal to *ENR.4*.

### Block 9 Treatment outcomes for people started on a short (≤12 months) treatment regimen one year before the current reporting year

This introduces a major change from previous practice – that is when a person is transferred during treatment then the facility where a person finishes their treatment is the one responsible for reporting the outcome, **not** the facility where a person started their treatment.

Another change is that, unlike the WHO guidance published in 2013, the patient categories include all new TB episodes and all people re-registered for TB, including those with unknown previous treatment history. Comparison with success rates reported under the earlier framework may be difficult, since the rate is likely to be lower when the new definitions are used.

(The shaded columns are optional, but could be used to help calculate cohort size)

Regimen type appropriate for the person	Started treatment in this facility <sup>a</sup>	Transferred <b>in</b> to continue treatment after starting treatment at another facility	Transferred <b>out</b> to continue treatment in another facility after starting treatment in this facility	Cohort size after accounting for transfers <sup>b</sup>	Treatment outcomes					
					Treatment successful		Treatment failed	Died for any reason after starting TB treatment	Lost to follow-up after starting TB treatment	Not evaluated
					Cured	Treatment completed				
Regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status) <sup>c</sup>	<i>OUT.1a</i>	<i>OUT.1b</i>	<i>OUT.1c</i>	$OUT.1 = (OUT.1a + OUT.1b - OUT.1c)$	<i>OUT.2</i>	<i>OUT.3</i>	<i>OUT.4</i>	<i>OUT.5</i>	<i>OUT.6</i>	<i>OUT.7</i>
Regimens designed to treat rifampicin-susceptible TB (people living with HIV) <sup>c</sup>	<i>OUT.1a.H</i>	<i>OUT.1b.H</i>	<i>OUT.1c.H</i>	$OUT.1.H = (OUT.1a.H + OUT.1b.H - OUT.1c.H)$	<i>OUT.2.H</i>	<i>OUT.3.H</i>	<i>OUT.4.H</i>	<i>OUT.5.H</i>	<i>OUT.6.H</i>	<i>OUT.7.H</i>
Short (≤12 months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB) <sup>d</sup>	<i>OUT.8a</i>	<i>OUT.8b</i>	<i>OUT.8c</i>	$OUT.8 = (OUT.8a + OUT.8b - OUT.8c)$	<i>OUT.9</i>	<i>OUT.10</i>	<i>OUT.11</i>	<i>OUT.12</i>	<i>OUT.13</i>	<i>OUT.14</i>

<sup>a</sup> The numbers registered for each regimen type should match the numbers reported in **Block 8** in the previous calendar year (so *OUT.1a* = *ENR.5* in the previous year, *Out.1a.H* = *ENR.5.H* in the previous year, *OUT.8a* = *ENR.6* in the previous year).

<sup>b</sup> Add people transferred in to continue treatment after starting at another facility and remove people transferred out to continue treatment at another facility.

<sup>c</sup> Includes people with other resistance patterns (eg isoniazid-resistant TB) with no documented resistant to rifampicin.

<sup>d</sup> Includes people who do not have DST results but are put on treatment regimens for drug-resistant TB; for example contacts of people with confirmed drug-resistant TB.

### Block 10 Treatment outcomes for people eligible for a longer (>12 months and ≤24 months) treatment regimen two years before the current reporting year

(The shaded columns are optional, but could be used to help calculate cohort size)

Regimen type appropriate for the person	Started treatment in this facility <sup>a</sup>	Transferred <u>in</u> to continue treatment after starting treatment at another facility	Transferred <u>out</u> to continue treatment in another facility after starting treatment in this facility	Cohort size after accounting for transfers <sup>b</sup>	Treatment outcomes					
					Treatment successful		Treatment failed	Died for any reason after starting TB treatment	Lost to follow-up after starting TB treatment	Not evaluated
					Cured	Treatment completed				
Long (>12 months and ≤24 months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB) <sup>c</sup>	OUT.15a	OUT.15b	OUT.15c	$OUT.15 = (OUT.15a + OUT.15b - OUT.15c)$	OUT.16	OUT.17	OUT.18	OUT.19	OUT.20	OUT.21

<sup>a</sup> The numbers registered for each regimen type should match the numbers reported in Block 8 from 2 calendar years ago (so OUT.15a = ENR.7 two years ago).

<sup>b</sup> Add people transferred in to continue treatment after starting at another facility and remove people transferred out to continue treatment at another facility.

<sup>c</sup> Includes people who do not have DST results but are put on treatment regimens for drug-resistant TB; for example contacts of people with confirmed drug-resistant TB.

The following are elements corresponding to the five additional indicators recommended for reporting and use in countries with case-based digital surveillance systems as well as additional indicators that are options to be considered in countries with case-based digital surveillance systems, as listed in [Table 4.7](#) and [Table 4.9](#) of [Chapter 4](#). These data items could also be collected through periodic surveys based on a random sample of patient records, instead of routine continuous surveillance.

### Block 3b Testing among all people with new episodes of TB (*REG.11*: see [Block 1](#))

Tested using a WHO-recommended rapid diagnostic (WRD) as the initial diagnostic test (regardless of result)	<i>REG.39</i>
New episodes of clinically diagnosed pulmonary TB tested using a WRD as the initial diagnostic test	<i>REG.40</i>

### Block 6b Bedaquiline and linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant TB (RR-TB) (*DST.8*: see [Block 4](#))

RR-TB with documented test result for bedaquiline	<i>DST.31</i>
RR-TB with documented test result for linezolid	<i>DST.32</i>

### Block 11 Data from the laboratory information system on testing of people with presumptive TB

Diagnostic tests for TB performed using WHO-recommended rapid diagnostics (WRDs)	<i>LAB.1</i>
Positive results among the diagnostic tests for TB performed using WRDs	<i>LAB.2</i>

### Block 12 Screening for TB and provision of TB preventive treatment among household contacts of people with a new episode of bacteriologically confirmed pulmonary TB

Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB ( <i>REG.1</i> , <i>REG.2</i> and <i>REG.3</i> ; see <a href="#">Block 1</a> )	<i>SCR.1</i>	
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB who were evaluated for TB (disease or infection)	<i>SCR.2</i>	
	<b>Aged &lt;5 years</b>	<b>All ages</b>
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB ( <i>REG.1</i> , <i>REG.2</i> and <i>REG.3</i> ; see <a href="#">Block 1</a> ) eligible for TB preventive treatment	<i>TPT.1</i>	<i>TPT.2</i>
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB started on TB preventive treatment	<i>TPT.3</i>	<i>TPT.4</i>

### Block 13 Completion of TB preventive treatment for people who started on treatment one year before the current reporting year

Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB who started TB preventive treatment in the previous calendar year and who completed treatment	<i>TPT.5</i>
---	--------------

# Chapter 2

## Template for quarterly reporting of aggregated data in a paper-based surveillance system

Facility name \_\_\_\_\_ Report for quarter \_\_\_\_\_ of calendar year \_\_\_\_\_

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

	New episodes		
	New cases <sup>b</sup>	Recurrent cases	Unknown previous treatment history
Pulmonary, bacteriologically confirmed	REG.1	REG.2	REG.3
Pulmonary, clinically diagnosed	REG.4	REG.5	REG.6
Extrapulmonary, bacteriologically confirmed or clinically diagnosed	REG.7		
<b>Total new episodes</b>	$REG.11 = REG.1 + REG.2 + REG.3 + REG.4 + REG.5 + REG.6 + REG.7$		

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

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

### Block 2 All people with new episodes of TB (REG.11: see Block 1) by age group and sex

	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	≥65	Age unknown/ not recorded
Female	REG.13	REG.14	REG.15	REG.16	REG.17	REG.18	REG.19	REG.20	REG.21	REG.22	REG.23
Male	REG.24	REG.25	REG.26	REG.27	REG.28	REG.29	REG.30	REG.31	REG.32	REG.33	REG.34
<b>Total<sup>a</sup></b>	$REG.35 = \text{Sum of REG.13 to REG.34}$										

<sup>a</sup> The total should be the same as the total number of new episodes of TB in Block 1 (REG.11).

### Block 3 HIV testing and ART coverage among all people with new episodes of TB (REG.11: see Block 1)

With documented HIV status	REG.36
HIV-positive	REG.37
HIV-positive on antiretroviral therapy	REG.38

**Block 4 Rifampicin susceptibility testing among people with pulmonary bacteriologically confirmed TB (REG.1, REG.2 and REG.3: see Block 1 and re-registered cases)**

With documented test result for rifampicin	DST.4
Resistant to rifampicin (RR-TB)	DST.8

**Block 5 to Block 7 do not apply for quarterly reporting.**

**Block 8 Enrolment on treatment among all people diagnosed with a new episode of TB disease (REG.1 – REG.7: see Block 1)**

(The shaded columns are optional, but could be used to help calculate cohort size)

Registered in this facility <sup>a</sup>	Transferred in to start treatment after registration in another facility	Transferred out after registration to start treatment in another facility	Net registered in this facility after accounting for transfers	Died before treatment started	Lost to follow-up before treatment started <sup>b</sup>	Started on treatment in this facility <sup>c</sup>
ENR.1a	ENR.1b	ENR.1c	$ENR.1 = (ENR.1a + ENR.1b - ENR.1c)$	ENR.2	ENR.3	$ENR.4 = (ENR.1 - ENR.2 - ENR.3)$

**Number started treatment in this facility by regimen type**

Regimen type appropriate for the person	Started on treatment in this facility
Regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status)	ENR.5

<sup>a</sup> Registered column (ENR.1a) must be equal to sum of Block 1 (REG.11).

<sup>b</sup> Includes people who did not start treatment for any reason.

<sup>c</sup> Includes people transferred in to start treatment and excludes those who died, were lost to follow-up or transferred out before the start of treatment.

### Block 9 Treatment outcomes for people started on a short ( $\leq 12$ months) treatment regimen one year before the current reporting year

This introduces a major change from previous practice – that is when a person is transferred during treatment then the facility where a person finishes their treatment is the one responsible for reporting the outcome, **not** the facility where a person started their treatment.

Another change is that, unlike the WHO guidance published in 2013, the patient categories include all new TB episodes and all people re-registered for TB, including those with unknown previous treatment history. Comparison with success rates reported under the earlier framework may be difficult, since the rate is likely to be lower when the new definitions are used.

(The shaded columns are optional, but could be used to help calculate cohort size)

Regimen type	Started treatment in this facility <sup>a</sup>	Transferred <u>in</u> to continue treatment after starting treatment at another facility	Transferred <u>out</u> to continue treatment in another facility after starting treatment in this facility	Cohort size <sup>b</sup>	Treatment outcomes					
					Treatment successful		Treatment failed	Died for any reason after starting TB treatment	Lost to follow-up after starting TB treatment	Not evaluated
					Cured	Treatment completed				
Regimens designed to treat rifampicin-susceptible TB <sup>c</sup>	<i>OUT.1a</i>	<i>OUT.1b</i>	<i>OUT.1c</i>	$OUT.1 = (OUT.1a + OUT.1b - OUT.1c)$	<i>OUT.2</i>	<i>OUT.3</i>	<i>OUT.4</i>	<i>OUT.5</i>	<i>OUT.6</i>	<i>OUT.7</i>

<sup>a</sup> The numbers registered should match the numbers reported in **Block 8** for the same quarter in the previous calendar year (so *OUT.1a* = *ENR.5* in the same quarter of the previous year).

<sup>b</sup> Add people transferred in to continue treatment after starting at another facility and remove people transferred out to continue treatment at another facility.

<sup>c</sup> Includes people with other resistance patterns (eg isoniazid-resistant TB) with no documented resistant to rifampicin.

The following are elements corresponding to the five additional indicators recommended for reporting and use in countries with case-based digital surveillance systems, as listed in [Table 4.4](#) of [Chapter 4](#).

These data items could also be collected through periodic surveys based on a random sample of patient records, instead of routine continuous surveillance.

**Block 3b Testing among all people with new episodes of TB (REG.1 – REG.7: see Block 1)**

Tested using a WHO-recommended rapid diagnostic (WRD) as the initial diagnostic test (regardless of result)	REG.39
---	--------

**Block 6b does not apply for quarterly reporting.**

**Block 11 Data from the laboratory information system on testing of people with presumptive TB**

Diagnostic tests for TB performed using WHO-recommended rapid diagnostics (WRDs)	LAB.1
Positive results among the diagnostic tests for TB performed using WRDs	LAB.2

**Block 12 Screening for TB and provision of TB preventive treatment among household contacts of people with bacteriologically confirmed pulmonary TB**

Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB (REG.1, REG.2 and REG.3; see Block 1)	SCR.1
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB who were evaluated for TB (disease or infection)	SCR.2
	All ages
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB (REG.1, REG.2 and REG.3; see Block 1) eligible for TB preventive treatment	TPT.2
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB started on TB preventive treatment	TPT.4



## Chapter 3

# How to calculate the totals required to complete the templates

The tables below show how the totals required to complete the example templates for quarterly and annual reporting can be calculated. **These calculations should be automated in a digital case-based surveillance system.**

The calculations assume there are no missing values in the data items used in the formulae; this should be enforced within the system.

In the absence of a digital case-based system, the calculations need to be carried out manually by the people compiling the report. This is a difficult and time-consuming task with a high chance of errors being made. Tally sheets can help to simplify the task.

### Block 1 All people diagnosed with TB disease during the calendar year by site of disease, method of diagnosis and previous treatment history

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New pulmonary bacteriologically confirmed TB	new_pulm_labconf	REG.1	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and transfer_in != Y
Recurrent pulmonary bacteriologically confirmed TB	rec_pulm_labconf	REG.2	registered_date in the reporting period and denotified != Y and tx_history = R and disease_site = P and diagnosis_method = B and transfer_in != Y
Pulmonary bacteriologically confirmed TB with unknown treatment history	unk_pulm_labconf	REG.3	registered_date in the reporting period and denotified != Y and tx_history = U and disease_site = P and diagnosis_method = B and transfer_in != Y
New pulmonary clinically diagnosed TB	new_pulm_clindx	REG.4	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = C and transfer_in != Y
Recurrent pulmonary clinically diagnosed TB	rec_pulm_clindx	REG.5	registered_date in the reporting period and denotified != Y and tx_history = R and disease_site = P and diagnosis_method = C and transfer_in != Y
Pulmonary clinically diagnosed TB with unknown treatment history	unk_pulm_clindx	REG.6	registered_date in the reporting period and denotified != Y and tx_history = U and disease_site = P and diagnosis_method = C and transfer_in != Y

**Block 1 All people diagnosed with TB disease during the calendar year by site of disease, method of diagnosis and previous treatment history (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New, relapse and previous treatment unknown extrapulmonary TB	newrel_ep	REG.7	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = E and diagnosis_method = (B or C) and transfer_in != Y
Re-registered pulmonary bacteriologically confirmed TB	rereg_pulm_labconf	REG.8	registered_date in the reporting period and denotified != Y and tx_history = P and disease_site = P and diagnosis_method = B and transfer_in != Y
Re-registered pulmonary clinically diagnosed TB	rereg_pulm_clindx	REG.9	registered_date in the reporting period and denotified != Y and tx_history = P and disease_site = P and diagnosis_method = C and transfer_in != Y
Extrapulmonary re-registered TB	rereg_ep	REG.10	registered_date in the reporting period and denotified != Y and tx_history = P and disease_site = E and diagnosis_method = (B or C) and transfer_in != Y
Total new episodes of TB	c_newinc	REG.11	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and transfer_in != Y
Total number of people diagnosed with TB and registered	c_notified	REG.12	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U or P) and disease_site = (P or E) and diagnosis_method = (B or C) and transfer_in != Y

**Block 2 All people with new episodes of TB by age group and sex**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New episodes of TB in females aged 0–4 years	newinc_f04	REG.13	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and sex = F and age < 5 and transfer_in != Y
New episodes of TB in females aged 5–9 years	newinc_f59	REG.14	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and sex = F and age >= 5 and age < 10 and transfer_in != Y

Continue with this pattern for females in age groups 10–14, 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, then:

## Block 2 All people with new episodes of TB by age group and sex (continued)

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New episodes of TB in females aged 65 years and over	newinc_f65plus	REG.22	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = F <i>and</i> age >= 65 <i>and</i> transfer_in != Y
New episodes of TB in females with age unknown	newinc_fageunk	REG.23	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = F <i>and</i> age not filled in <i>and</i> transfer_in != Y
New episodes of TB in males aged 0–4 years	newinc_m04	REG.24	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = M <i>and</i> age < 5 <i>and</i> transfer_in != Y
New episodes of TB in males aged 5–9 years	newinc_m59	REG.25	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = M <i>and</i> age >= 5 <i>and</i> age < 10 <i>and</i> transfer_in != Y
<i>Continue with this pattern for males in age groups 10–14, 15–19, 20–24, 25–34, 35–44, 45–54, 55–64, then:</i>			
New episodes of TB in males aged 65 years and over	newinc_m65plus	REG.33	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = M <i>and</i> age >= 65 <i>and</i> transfer_in != Y
New episodes of TB in males with age unknown	newinc_mageunk	REG.34	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> sex = M <i>and</i> age not filled in <i>and</i> transfer_in != Y

### Block 3 Testing among all people with new episodes of TB

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People with new episodes of TB tested for HIV at the time of TB diagnosis or with known HIV status at the time of TB diagnosis	newinc_hivtest	REG.36	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and hiv_status = (P or N) and transfer_in != Y
People with new episodes of TB that are HIV-positive	newinc_hivpos	REG.37	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and hiv_status = P and transfer_in != Y
People with new episodes of TB that are HIV-positive and that have started or continued on antiretroviral therapy (ART)	newinc_hivpos_art	REG.38	registered_date in the reporting period and denotified != Y and tx_history = (N or R or U) and disease_site = (P or E) and diagnosis_method = (B or C) and hiv_status = P and (art_date < notified date or art_date within the reporting period) and transfer_in != Y

### Block 4 Rifampicin susceptibility testing among people with pulmonary bacteriologically confirmed TB

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New pulmonary bacteriologically confirmed TB with documented test result for rifampicin	new_pulm_labconf_r_rlt	DST.1	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and rif_susceptibility = (S or R) and transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test result for rifampicin	ret_pulm_labconf_r_rlt	DST.2	registered_date in the reporting period and denotified != Y and tx_history = (R or P) and disease_site = P and diagnosis_method = B and rif_susceptibility = (S or R) and transfer_in != Y
Pulmonary bacteriologically confirmed TB with unknown previous treatment history and with documented test result for rifampicin	unk_pulm_labconf_r_rlt	DST.3	registered_date in the reporting period and denotified != Y and tx_history = U and disease_site = P and diagnosis_method = B and rif_susceptibility = (S or R) and transfer_in != Y
Total pulmonary bacteriologically confirmed TB with documented test result for rifampicin	pulm_labconf_r_rlt	DST.4	registered_date in the reporting period and denotified != Y and disease_site = P and diagnosis_method = B and rif_susceptibility = (S or R) and transfer_in != Y

#### Block 4 Rifampicin susceptibility testing among people with pulmonary bacteriologically confirmed TB (continued)

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New pulmonary bacteriologically confirmed TB with documented resistance to rifampicin (RR-TB)	new_pulm_labconf_rr	DST.5	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and rif_susceptibility = R and transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented resistance to rifampicin (RR-TB)	ret_pulm_labconf_rr	DST.6	registered_date in the reporting period and denotified != Y and tx_history = (R or P) and disease_site = P and diagnosis_method = B and rif_susceptibility = R and transfer_in != Y
Pulmonary bacteriologically confirmed TB with unknown previous treatment history and with documented resistance to rifampicin (RR-TB)	unk_pulm_labconf_rr	DST.7	registered_date in the reporting period and denotified != Y and tx_history = U and disease_site = P and diagnosis_method = B and rif_susceptibility = R and transfer_in != Y
Total pulmonary bacteriologically confirmed TB with documented resistance to rifampicin (RR-TB)	pulm_labconf_rr	DST.8	registered_date in the reporting period and denotified != Y and tx_history = (N or R or P or U) and disease_site = P and diagnosis_method = B and rif_susceptibility = R and transfer_in != Y

#### Block 5 Isoniazid susceptibility testing among people with pulmonary bacteriologically confirmed TB who have also had rifampicin susceptibility testing

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: susceptible to rifampicin and susceptible to isoniazid	new_pulm_labconf_rs_hs	DST.9	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and rif_susceptibility = S and inh_susceptibility = S and transfer_in != Y
New pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: susceptible to rifampicin and resistant to isoniazid	new_pulm_labconf_rs_hr	DST.10	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and rif_susceptibility = S and inh_susceptibility = R and transfer_in != Y
New pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: resistant to rifampicin and susceptible to isoniazid (RR-TB)	new_pulm_labconf_rr_hs	DST.11	registered_date in the reporting period and denotified != Y and tx_history = N and disease_site = P and diagnosis_method = B and rif_susceptibility = R and inh_susceptibility = S and transfer_in != Y

**Block 5 Isoniazid susceptibility testing among people with pulmonary bacteriologically confirmed TB who have also had rifampicin susceptibility testing (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
New pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: resistant to rifampicin and resistant to isoniazid (MDR-TB)	new_pulm_labconf_rr_hr	DST.12	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = N <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> inh_susceptibility = R <i>and</i> transfer_in != Y
New pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: total tested	new_pulm_labconf_r_h_rlt	DST.13	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = N <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = (S or R) <i>and</i> inh_susceptibility = (S or R) <i>and</i> transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: susceptible to rifampicin and susceptible to isoniazid	ret_pulm_labconf_rs_hs	DST.14	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (R or P) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = S <i>and</i> inh_susceptibility = S <i>and</i> transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: susceptible to rifampicin and resistant to isoniazid	ret_pulm_labconf_rs_hr	DST.15	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (R or P) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = S <i>and</i> inh_susceptibility = R <i>and</i> transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: resistant to rifampicin and susceptible to isoniazid (RR-TB)	ret_pulm_labconf_rr_hs	DST.16	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (R or P) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> inh_susceptibility = S <i>and</i> transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: resistant to rifampicin and resistant to isoniazid (MDR-TB)	ret_pulm_labconf_rr_hr	DST.17	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (R or P) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> inh_susceptibility = R <i>and</i> transfer_in != Y
Previously treated pulmonary bacteriologically confirmed TB with documented test results for rifampicin and isoniazid: total tested	ret_pulm_labconf_r_h_rlt	DST.18	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (R or P) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = (S or R) <i>and</i> inh_susceptibility = (S or R) <i>and</i> transfer_in != Y

## Block 6 Fluoroquinolone susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant TB

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Pulmonary bacteriologically confirmed rifampicin-resistant TB with documented test result for susceptibility to fluoroquinolones	pulm_labconf_rr_fq_rlt	DST.19	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = (S or R) <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant TB with documented resistance to fluoroquinolones	pulm_labconf_rr_fqr	DST.20	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> transfer_in != Y

## Block 7 Bedaquiline and/or linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB (pre-XDR-TB)

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB with no documented susceptibility test result for bedaquiline and no documented susceptibility test result for linezolid	pulm_labconf_rr_fqr_bdqu_lzdu	DST.21	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = U <i>and</i> lzd_susceptibility = U <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB susceptible to bedaquiline and no documented susceptibility test result for linezolid	pulm_labconf_rr_fqr_bdqs_lzdu	DST.22	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = S <i>and</i> lzd_susceptibility = U <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB resistant to bedaquiline and no documented susceptibility test result for linezolid (XDR-TB)	pulm_labconf_rr_fqr_bdqr_lzdu	DST.23	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = R <i>and</i> lzd_susceptibility = U <i>and</i> transfer_in != Y

**Block 7 Bedaquiline and/or linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB (pre-XDR-TB) (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB with no documented susceptibility test result for bedaquiline and susceptible to linezolid	pulm_labconf_rr_fqr_bdqu_lzds	DST.24	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = U <i>and</i> lzd_susceptibility = S <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB susceptible to bedaquiline and susceptible to linezolid	pulm_labconf_rr_fqr_bdqs_lzds	DST.25	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = S <i>and</i> lzd_susceptibility = S <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB resistant to bedaquiline and susceptible to linezolid (XDR-TB)	pulm_labconf_rr_fqr_bdqr_lzds	DST.26	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = R <i>and</i> lzd_susceptibility = S <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB with no documented susceptibility test result for bedaquiline and resistant to linezolid (XDR-TB)	pulm_labconf_rr_fqr_bdqu_lzdr	DST.27	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = U <i>and</i> lzd_susceptibility = R <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB susceptible to bedaquiline and resistant to linezolid (XDR-TB)	pulm_labconf_rr_fqr_bdqs_lzdr	DST.28	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = S <i>and</i> lzd_susceptibility = R <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB resistant to bedaquiline and resistant to linezolid (XDR-TB)	pulm_labconf_rr_fqr_bdqr_lzdr	DST.29	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> bdq_susceptibility = R <i>and</i> lzd_susceptibility = R <i>and</i> transfer_in != Y



**Block 7 Bedaquiline and/or linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant and fluoroquinolone-resistant TB (pre-XDR-TB) (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Total with pulmonary bacteriologically confirmed XDR-TB		DST.30	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> fq_susceptibility = R <i>and</i> (bdq_susceptibility = R or lzd_susceptibility = R) <i>and</i> transfer_in != Y

**Block 8 Enrolment on treatment among all registered people diagnosed with TB disease**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered in the reporting facility		ENR.1	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> (add people transferred in to start treatment at this facility and exclude people transferred out to start treatment in another facility)
People registered in the reporting facility who died before treatment started		ENR.2	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_started = N <i>and</i> notx_reason = died <i>and</i> (add people transferred in to start treatment at this facility and exclude people transferred out to start treatment in another facility)
People registered in the reporting facility who were lost to follow-up before treatment started		ENR.3	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_started = N <i>and</i> notx_reason = lost <i>and</i> (add people transferred in to start treatment at this facility and exclude people transferred out to start treatment in another facility)
People who started treatment in the reporting facility		ENR.4	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_started = Y <i>and</i> tx_start_date = within the reporting period <i>and</i> (add people transferred in to start treatment at this facility and exclude people transferred out to start treatment in another facility)
People who started on treatment regimens in the reporting facility designed to treat rifampicin-susceptible TB (irrespective of HIV status)		ENR.5	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> tx_started = Y <i>and</i> tx_start_date = within the reporting period <i>and</i> (exclude those who did not start treatment or transferred out before start of treatment, add any people transferred in before start of treatment)

## Block 8 Enrolment on treatment among all registered people diagnosed with TB disease (continued)

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People who started on treatment regimens in the reporting facility designed to treat rifampicin-susceptible TB (people living with HIV)		ENR.5.H	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> hiv_status = P <i>and</i> tx_started = Y <i>and</i> tx_start_date = within the reporting period <i>and</i> (exclude those who did not start treatment or transferred out before start of treatment, add any people transferred in before start of treatment)
People who started on short ( $\leq 12$ months) treatment regimens in the reporting facility designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB)		ENR.6	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_duration $\leq 12$ <i>and</i> tx_started = Y <i>and</i> tx_start_date = within the reporting period <i>and</i> (exclude those who did not start treatment or transferred out before start of treatment, add any people transferred in before start of treatment)
People who started on long ( $> 12$ months and $\leq 24$ months) treatment regimens in the reporting facility designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB)		ENR.7	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_duration $> 12$ <i>and</i> tx_duration $\leq 24$ <i>and</i> tx_started = Y <i>and</i> tx_start_date = within the reporting period <i>and</i> (exclude those who did not start treatment or transferred out before start of treatment, add any people transferred in before start of treatment)

## Block 9 Treatment outcomes for people who started on a short ( $\leq 12$ months) treatment regimen one year before the current reporting year

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): cohort size		OUT.1	registered_date 12 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> tx_started = Y <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)

**Block 9 Treatment outcomes for people who started on a short (≤12 months) treatment regimen one year before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): cured		OUT.2	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = B <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = cure <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): treatment completed		OUT.3	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = cmplt <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): treatment failed		OUT.4	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = fail <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): died for any reason after starting TB treatment		OUT.5	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = died <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>

**Block 9 Treatment outcomes for people who started on a short (≤12 months) treatment regimen one year before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): lost to follow-up after starting TB treatment		OUT.6	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = lost <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a regimen designed to treat rifampicin-susceptible TB (irrespective of HIV status): not evaluated		OUT.7	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = neval <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: cohort size		OUT.1.H	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  hiv_status = P <i>and</i>  tx_started = Y <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: cured		OUT.2.H	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = B <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  hiv_status = P <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = cure <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>

**Block 9 Treatment outcomes for people who started on a short (≤12 months) treatment regimen one year before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: treatment completed		OUT.3.H	registered_date 12 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> hiv_status = P <i>and</i> tx_started = Y <i>and</i> tx_outcome = cmplt <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: treatment failed		OUT.4.H	registered_date 12 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> hiv_status = P <i>and</i> tx_started = Y <i>and</i> tx_outcome = fail <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: died for any reason after starting TB treatment		OUT.5.H	registered_date 12 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> hiv_status = P <i>and</i> tx_started = Y <i>and</i> tx_outcome = died <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: lost to follow-up after starting TB treatment		OUT.6.H	registered_date 12 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (S or U) <i>and</i> tx_regimen_type = ds <i>and</i> hiv_status = P <i>and</i> tx_started = Y <i>and</i> tx_outcome = lost <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)

**Block 9 Treatment outcomes for people who started on a short (≤12 months) treatment regimen one year before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who are living with HIV and started treatment using a regimen designed to treat rifampicin-susceptible TB: not evaluated		OUT.7.H	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (S or U) <i>and</i>  tx_regimen_type = ds <i>and</i>  hiv_status = P <i>and</i>  tx_started = Y <i>and</i>  tx_outcome = neval <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): cohort size		OUT.8	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_started = Y <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): cured		OUT.9	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = B <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = cure <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): treatment completed		OUT.10	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = cmplt <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>

**Block 9 Treatment outcomes for people who started on a short (≤12 months) treatment regimen one year before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): treatment failed		OUT.11	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = fail <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): died for any reason after starting TB treatment		OUT.12	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = died <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): lost to follow-up after starting TB treatment		OUT.13	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = lost <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a short (≤12 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): not evaluated		OUT.14	<p>registered_date 12 months earlier than the reporting period <i>and</i>  denotified != Y <i>and</i>  tx_history = (N or R or U or P) <i>and</i>  disease_site = (P or E) <i>and</i>  diagnosis_method = (B or C) <i>and</i>  rif_susceptibility = (R or U) <i>and</i>  tx_regimen_type = rr <i>and</i>  tx_started = Y <i>and</i>  tx_duration &lt;= 12 <i>and</i>  tx_outcome = neval <i>and</i>  (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>

**Block 10 Treatment outcomes for people who started on a longer (>12 months and ≤24 months) treatment regimen two years before the current reporting year**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): cohort size		OUT.15	<p>registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_duration &gt; 12 <i>and</i> tx_duration ≤ 24 <i>and</i> tx_started = Y <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): cured		OUT.16	<p>registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration &gt; 12 <i>and</i> tx_duration ≤ 24 <i>and</i> tx_outcome = cure <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): treatment completed		OUT.17	<p>registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration &gt; 12 <i>and</i> tx_duration ≤ 24 <i>and</i> tx_outcome = cmplt <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)</p>



**Block 10 Treatment outcomes for people who started on a longer (>12 months and ≤24 months) treatment regimen two years before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): treatment failed		OUT.18	registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration > 12 <i>and</i> tx_duration <= 24 <i>and</i> tx_outcome = fail <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): died for any reason after starting TB treatment		OUT.19	registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration > 12 <i>and</i> tx_duration <= 24 <i>and</i> tx_outcome = died <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): lost to follow-up after starting TB treatment		OUT.20	registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration > 12 <i>and</i> tx_duration <= 24 <i>and</i> tx_outcome = lost <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)

**Block 10 Treatment outcomes for people who started on a longer (>12 months and ≤24 months) treatment regimen two years before the current reporting year (continued)**

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People registered who started treatment using a long (>12 months and ≤24 months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): not evaluated		OUT.21	registered_date between 12 and 24 months earlier than the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U or P) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> rif_susceptibility = (R or U) <i>and</i> tx_regimen_type = rr <i>and</i> tx_started = Y <i>and</i> tx_duration > 12 <i>and</i> tx_duration <= 24 <i>and</i> tx_outcome = neval <i>and</i> (add people transferred in to continue treatment after starting at another facility and exclude people transferred out to continue treatment in another facility after starting at this facility)

## Chapter 4

# Additional elements that are recommended, or that may be considered for inclusion, in countries with a case-based digital surveillance system

### Block 3 Testing among all people with new episodes of TB

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
People with new episodes of TB tested using WHO-recommended rapid diagnostics as the initial diagnostic test (regardless of test result)	newinc_wrd	REG.39	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = (P or E) <i>and</i> diagnosis_method = (B or C) <i>and</i> wrd = Y <i>and</i> transfer_in != Y
People with new episodes of clinically diagnosed pulmonary TB tested using WHO-recommended rapid diagnostics as the initial diagnostic test (regardless of test result, noting that by definition a positive result means the person should be classified as having bacteriologically confirmed TB)	newinc_pulm_clindx_wrd	REG.40	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = C <i>and</i> wrd = Y <i>and</i> transfer_in != Y

### Block 6b Bedaquiline and linezolid susceptibility testing among people with pulmonary bacteriologically confirmed rifampicin-resistant TB (RR-TB)

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Pulmonary bacteriologically confirmed rifampicin-resistant TB with documented test result for susceptibility to bedaquiline		DST.31	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> bdq_susceptibility = (S or R) <i>and</i> transfer_in != Y
Pulmonary bacteriologically confirmed rifampicin-resistant TB with documented test result for susceptibility to linezolid		DST.32	registered_date in the reporting period <i>and</i> denotified != Y <i>and</i> tx_history = (N or R or P or U) <i>and</i> disease_site = P <i>and</i> diagnosis_method = B <i>and</i> rif_susceptibility = R <i>and</i> lzd_susceptibility = (S or R) <i>and</i> transfer_in != Y

## Block 11 Data from the laboratory information system on testing people with presumptive TB

This is not covered here as it relates to laboratory information systems.

## Block 12 Screening for TB and provision of TB preventive treatment among household contacts of people with bacteriologically confirmed pulmonary TB

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of people at the specified location matching the following conditions
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB		SCR.1	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB evaluated for TB (disease or infection)		SCR.2	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B <i>and</i> contact.screened = Y
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB aged <5 years eligible for TB preventive treatment		TPT.1	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B <i>and</i> contact.age < 5 <i>and</i> contact.tpt_eligible = Y
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB (all ages) eligible for TB preventive treatment		TPT.2	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B <i>and</i> contact.tpt_eligible = Y
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB aged <5 years started on TB preventive treatment		TPT.3	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B <i>and</i> contact.age < 5 <i>and</i> contact.tpt_started = Y
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB (all ages) started on TB preventive treatment		TPT.4	linked index case (contact.index_id = index.person_id) has: index.registered_date in the reporting period <i>and</i> index.denotified != Y <i>and</i> index.tx_history = (N or R or U) <i>and</i> index.disease_site = P <i>and</i> index.diagnosis_method = B <i>and</i> contact.tpt_started = Y

### Block 13 Completion of TB preventive treatment for people who started on treatment one year before the current reporting year

Name of reported total	Code (verbose)	Short code shown in the example annual report template	Formula: Sum of cases at the specified location matching the following conditions
Household contacts of people with a new episode of bacteriologically confirmed pulmonary TB (all ages) started on TB preventive treatment the previous calendar year and who completed treatment		TPT.5	<p>linked index case (contact.index_id = index.person_id) has:  index.registered_date 12 months before the reporting period <i>and</i>  index.denotified != Y <i>and</i>  index.tx_history = (N or R or U) <i>and</i>  index.disease_site = P <i>and</i>  index.diagnosis_method = B  <i>and</i>  contact.tpt_started = Y <i>and</i>  contact.tpt_start_date = 12 months before the reporting period <i>and</i>  contact.tpt_completed = Y</p> <p>(add people transferred in to continue TPT after starting at another facility and exclude people transferred out to continue TPT in another facility after starting at this facility)</p>

#### Validation rules:

REG.11 = REG.1 + REG.2 + REG.3 + REG.4 + REG.5 + REG.6 + REG.7

REG.12 = REG.1 + REG.2 + REG.3 + REG.4 + REG.5 + REG.6 + REG.7 + REG.8 + REG.9 + REG.10

REG.35 = REG.13 + REG.14 + REG.15 + REG.16 + REG.17 + REG.18 + REG.19 + REG.20 + REG.21 + REG.22 + REG.23 +  
REG.24 + REG.25 + REG.26 + REG.27 + REG.28 + REG.29 + REG.30 + REG.31 + REG.32 + REG.33 + REG.34

REG.35 ≤ REG.11

REG.36 ≤ REG.11

REG.37 ≤ REG.36

REG.38 ≤ REG.37

DST.1 ≤ REG.1

DST.2 ≤ (REG.2 + REG.8)

DST.3 ≤ REG.3

DST.4 = DST.1 + DST.2 + DST.3

DST.5 ≤ DST.1

DST.6 ≤ DST.2

DST.7 ≤ DST.3

DST.8 = DST.5 + DST.6 + DST.7

DST.8 ≤ DST.4

(DST.11+DST.12) ≤ DST.5

DST.13 = DST.9 + DST.10 + DST.11 + DST.12

DST.13 ≤ DST.1

(DST.16+DST.17) ≤ DST.6

DST.18 = DST.14 + DST.15 + DST.16 + DST.17

DST.18 ≤ DST.2

DST.19 ≤ DST.8

$$\text{DST.20} \leq \text{DST.19}$$

$$(\text{DST.21} + \text{DST.22} + \text{DST.23} + \text{DST.24} + \text{DST.25} + \text{DST.26} + \text{DST.27} + \text{DST.28} + \text{DST.29}) \leq \text{DST.20}$$

$$\text{DST.30} = \text{DST.23} + \text{DST.26} + \text{DST.27} + \text{DST.28} + \text{DST.29}$$

$$\text{ENR.1a} = \text{REG.12}$$

$$(\text{ENR.5} + \text{ENR.6} + \text{ENR.7}) = \text{ENR.4}$$

$$\text{OUT.1a} = \text{ENR.5 from the previous year}$$

$$\text{OUT.1a.H} = \text{ENR.5.H from the previous year}$$

$$\text{OUT.8a} = \text{ENR.6 from the previous year}$$

$$\text{OUT.15a} = \text{ENR.7 from two years previously}$$

$$(\text{OUT.2} + \text{OUT.3} + \text{OUT.4} + \text{OUT.5} + \text{OUT.6} + \text{OUT.7}) = \text{OUT.1}$$

$$(\text{OUT.2.H} + \text{OUT.3.H} + \text{OUT.4.H} + \text{OUT.5.H} + \text{OUT.6.H} + \text{OUT.7.H}) = \text{OUT.1.H}$$

$$(\text{OUT.9} + \text{OUT.10} + \text{OUT.11} + \text{OUT.12} + \text{OUT.13} + \text{OUT.14}) = \text{OUT.8}$$

$$(\text{OUT.16} + \text{OUT.17} + \text{OUT.18} + \text{OUT.19} + \text{OUT.20} + \text{OUT.21}) = \text{OUT.15}$$

## Optional

$$\text{REG.39} \leq \text{REG.11}$$

$$\text{REG.40} \leq (\text{REG.4} + \text{REG.5} + \text{REG.6})$$

$$\text{DST.31} \leq \text{DST.8}$$

$$\text{DST.32} \leq \text{DST.8}$$

# Chapter 5

## Calculating indicators from aggregate totals

Here are the formulae to calculate the minimum set of indicators listed in [Table 4.6](#) of [Chapter 4](#) using the example annual form:

Indicator	Formula
<b>People diagnosed with TB disease</b>	
Number of people diagnosed with a new episode of TB	REG.11
<i>Notification rate</i> : Number of people diagnosed with a new episode of TB per 100 000 population	$\text{REG.11} \times 100\,000 / [\text{population estimate for the area and year, if available}]$
Number of people re-registered for TB treatment	REG.8 + REG.9 + REG.10
<i>Bacteriological confirmation</i> : Percentage of people diagnosed with a new episode of pulmonary TB whose disease was bacteriologically confirmed	$(\text{REG.1.} + \text{REG.2.} + \text{REG.3.}) \times 100 / (\text{REG.1.} + \text{REG.2.} + \text{REG.3.} + \text{REG.4} + \text{REG.5} + \text{REG.6.})$
<i>Rifampicin-resistant TB (RR-TB)</i> : Number of people diagnosed with bacteriologically confirmed pulmonary TB that is resistant to rifampicin	Total: DST.8  For treatment history = new: DST.5  For treatment history = previously treated: DST.6
<i>Documentation of HIV status</i> : Percentage of people diagnosed with a new episode of TB whose HIV status was documented	$\text{REG.36} \times 100 / \text{REG.11}$
<i>HIV status</i> : Percentage of people who are HIV-positive, among those with documented HIV status	$\text{REG.37} \times 100 / \text{REG.36}$
<i>Antiretroviral therapy for people living with HIV</i> : Percentage of people living with HIV diagnosed with a new episode of TB who were on or newly enrolled on antiretroviral therapy	$\text{REG.38} \times 100 / \text{REG.37}$
<b>Coverage of testing for drug resistance among people with bacteriologically confirmed pulmonary TB<sup>a</sup></b>	
<i>Testing for RR-TB</i> : Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who were tested for rifampicin susceptibility	Total: $\text{DST.4} \times 100 / (\text{REG.1} + \text{REG.2} + \text{REG.3} + \text{REG.8})$  For treatment history = new: $\text{DST.1} \times 100 / \text{REG.1}$  For treatment history = previously treated: $\text{DST.2} \times 100 / (\text{REG.2} + \text{REG.8})$
<i>Testing for multi-drug resistant TB (MDR-TB)</i> : Percentage of people diagnosed with bacteriologically confirmed pulmonary TB who were tested for susceptibility to both rifampicin and isoniazid	For treatment history = new: $\text{DST.13} \times 100 / \text{REG.1}$  For treatment history = previously treated: $\text{DST.18} \times 100 / (\text{REG.2} + \text{REG.8})$
<i>Testing for isoniazid-resistant rifampicin-susceptible TB (Hr-TB)</i> : Percentage of people with documented test results for susceptibility to rifampicin who were tested for susceptibility to isoniazid	$(\text{DST.13} + \text{DST.18}) \times 100 / (\text{DST.1} + \text{DST.2})$
<i>Testing for pre-extensively drug-resistant TB (pre-XDR-TB)</i> : Percentage of people with rifampicin-resistant pulmonary TB who were tested for susceptibility to fluoroquinolones	$\text{DST.19} \times 100 / \text{DST.8}$
<i>Testing for extensively drug-resistant TB (XDR-TB)</i> : Percentage of people with pulmonary TB resistant to both rifampicin and fluoroquinolones (pre-XDR-TB) who were tested for susceptibility to bedaquiline and linezolid	$(\text{DST.25} + \text{DST.26} + \text{DST.28} + \text{DST.29}) \times 100 / \text{DST.20}$

Indicator	Formula
<b>Coverage of testing for drug resistance among people with bacteriologically confirmed pulmonary TB (continued)</b>	
<i>Testing for bedaquiline resistance in pre-extensively drug-resistant TB (pre-XDR-TB):</i> Percentage of people with pulmonary TB resistant to both rifampicin and fluoroquinolones (pre-XDR-TB) who were tested for susceptibility to bedaquiline	$(DST.22 + DST.23 + DST.25 + DST.26 + DST.28 + DST.29) \times 100 / DST.20$
<i>Testing for linezolid resistance in pre-extensively drug-resistant TB (pre-XDR-TB):</i> Percentage of people with pulmonary TB resistant to both rifampicin and fluoroquinolones (pre-XDR-TB) who were tested for susceptibility to linezolid	$(DST.24 + DST.25 + DST.26 + DST.27 + DST.28 + DST.29) \times 100 / DST.20$
<b>Results from testing for drug resistance among people with bacteriologically confirmed pulmonary TB</b>	
<i>RR-TB:</i> Percentage of people tested for RR-TB who were resistant to rifampicin	Total: $DST.8 \times 100 / DST.4$  For treatment history = new: $DST.5 \times 100 / DST.1$  For treatment history = previously treated: $DST.6 \times 100 / DST.2$
<i>MDR-TB:</i> Percentage of people tested for MDR-TB who had MDR-TB	For treatment history = new: $DST.12 \times 100 / DST.13$  For treatment history = previously treated: $DST.17 \times 100 / DST.18$
<i>Hr-TB:</i> Percentage of people tested for Hr-TB who had Hr-TB	$(DST.10 + DST.15) \times 100 / (DST.13 + DST.18)$
<i>Pre-XDR-TB:</i> Percentage of people tested for pre-XDR-TB who had pre-XDR-TB	$DST.20 \times 100 / DST.19$
<i>XDR-TB:</i> Percentage of people tested for XDR-TB who had XDR-TB	$(DST.26 + DST.28 + DST.29) \times 100 / (DST.25 + DST.26 + DST.28 + DST.29)$
<b>People treated for TB disease</b>	
<i>Treatment initiation:</i> Percentage of people diagnosed with TB and registered as a TB case who were started on TB treatment	$ENR.4 \times 100 / ENR.1$
<i>Treatment initiation:</i> Percentage of people diagnosed with TB and registered as a TB case who died before starting TB treatment	$ENR.2 \times 100 / ENR.1$
<i>Treatment initiation:</i> Percentage of people diagnosed with TB and registered as a TB case who were lost to follow-up before starting TB treatment	$ENR.3 \times 100 / ENR.1$
<i>Treatment outcome:</i> Percentage of TB patients who were cured out of those who started TB treatment	For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status): $OUT.2 \times 100 / OUT.1$  For regimens designed to treat rifampicin-susceptible TB (people living with HIV): $OUT.2.H \times 100 / OUT.1.H$  For short ( $\leq 12$ months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): $OUT.9 \times 100 / OUT.8$  For long ( $> 12$ months and $\leq 24$ months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB): $OUT.16 \times 100 / OUT.15$



Indicator	Formula
<b>People treated for TB disease (continued)</b>	
<i>Treatment outcome:</i> Percentage of TB patients who completed TB treatment out of those who started TB treatment	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>OUT.3 \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>OUT.3.H \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.10 \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.17 \times 100 / OUT.15</math></p>
<i>Treatment outcome:</i> Percentage of TB patients who were successfully treated (cured or who completed TB treatment) out of those who started TB treatment	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>(OUT.2+OUT.3) \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>(OUT.2.H+OUT.3H) \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>(OUT.9+OUT.10) \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>(OUT.16+OUT.17) \times 100 / OUT.15</math></p>
<i>Treatment outcome:</i> Percentage of TB patients whose treatment failed out of those who started TB treatment	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>OUT.4 \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>OUT.4.H \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.11 \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.18 \times 100 / OUT.15</math></p>
<i>Treatment outcome:</i> Percentage of TB patients who died for any reason after starting TB treatment out of those who started TB treatment	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>OUT.5 \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>OUT.5.H \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.12 \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.19 \times 100 / OUT.15</math></p>

Indicator	Formula
<b>People treated for TB disease (continued)</b>	
<p><i>Treatment outcome:</i> Percentage of TB patients who were lost to follow-up after starting TB treatment out of those who started TB treatment</p>	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>OUT.6 \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>OUT.6.H \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.13 \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.20 \times 100 / OUT.15</math></p>
<p><i>Treatment outcome:</i> Percentage of TB patients to whom no treatment outcome was assigned, excluding those lost to follow-up, out of those who started TB treatment</p>	<p>For regimens designed to treat rifampicin-susceptible TB (irrespective of HIV status):  <math>OUT.7 \times 100 / OUT.1</math></p> <p>For regimens designed to treat rifampicin-susceptible TB (people living with HIV):  <math>OUT.7.H \times 100 / OUT.1.H</math></p> <p>For short (<math>\leq 12</math> months) regimens designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.14 \times 100 / OUT.8</math></p> <p>For long (<math>&gt; 12</math> months and <math>\leq 24</math> months) regimen designed to treat rifampicin-resistant TB (RR-TB/MDR-TB/pre-XDR-TB/XDR-TB):  <math>OUT.21 \times 100 / OUT.15</math></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case who were cured</p>	<p>Note:  The denominator for case outcomes is net number registered after adjusting for transfers before and after starting treatment. This is equal to (ENR.1 + OUT.1b – OUT.1c + OUT.8b – OUT.8c + OUT.15b – OUT.15c)</p> <p>This is equivalent to  <math>(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)</math></p> <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.8 are from the report <b>one year ago</b>  OUT.15 is from <b>this year's report</b>  And assuming  OUT.1a = ENR.5, OUT.8a = ENR.6, OUT.15a = ENR.7</p> <p>Therefore the percentage of registered TB cases who were cured =  <math>(OUT.2 + OUT.9 + OUT.16) \times 100 / (ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)</math></p> <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.2, OUT.8, OUT.9 are from the report <b>one year ago</b>  OUT.15, OUT.16 is from <b>this year's report</b></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case who completed TB treatment</p>	<p><math>(OUT.3 + OUT.10 + OUT.17) \times 100 / (ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)</math></p> <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.3, OUT.8, OUT.10 are from the report <b>one year ago</b>  OUT.15, OUT.17 are from <b>this year's report</b></p>

Indicator	Formula
<b>People treated for TB disease (continued)</b>	
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case who were successfully treated (cured or who completed TB treatment)</p>	$\frac{(OUT.2 + OUT.3 + OUT.9 + OUT.10 + OUT.16 + OUT.17) \times 100}{(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)}$ <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.2, OUT.3, OUT.8, OUT.9, OUT.10 are from the report <b>one year ago</b>  OUT.15, OUT.16, OUT.17 are from <b>this year's report</b></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case whose treatment failed</p>	$\frac{(OUT.4 + OUT.11 + OUT.18) \times 100}{(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)}$ <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.4, OUT.8, OUT.11 are from the report <b>one year ago</b>  OUT.15, OUT.18 are from <b>this year's report</b></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case who died for any reason before starting, or during the course of, TB treatment</p>	$\frac{(ENR.2 + OUT.5 + OUT.12 + OUT.19) \times 100}{(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)}$ <p>Where:  ENR.1, ENR.2, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.5, OUT.8, OUT.12 are from the report <b>one year ago</b>  OUT.15, OUT.19 is from <b>this year's report</b></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case who were lost to follow-up before starting or during TB treatment</p>	$\frac{(ENR.3 + OUT.6 + OUT.13 + OUT.20) \times 100}{(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)}$ <p>Where:  ENR.1, ENR.3, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.6, OUT.8, OUT.13 are from the report <b>one year ago</b>  OUT.15, OUT.20 is from <b>this year's report</b></p>
<p><i>Case outcome:</i> Percentage of the total number of people diagnosed with TB and registered as a TB case to whom no treatment outcome was assigned, excluding those lost to follow-up</p>	$\frac{(OUT.7 + OUT.14 + OUT.21) \times 100}{(ENR.1 + OUT.1 - ENR.5 + OUT.8 - ENR.6 + OUT.15 - ENR.7)}$ <p>Where:  ENR.1, ENR.5, ENR.6, ENR.7 are from the report <b>two years ago</b>  OUT.1, OUT.7, OUT.8, OUT.14 are from the report <b>one year ago</b>  OUT.15, OUT.21 is from <b>this year's report</b></p>

<sup>a</sup> Only results *susceptible* or *resistant* are considered when calculating indicators related to susceptibility testing.

Here are the formulae to calculate the set of indicators listed in [Table 4.7](#) and [Table 4.9](#) of [Chapter 4](#), using the example annual form:

Indicator	Formula
<b>People with presumptive TB</b>	
Number of diagnostic tests for TB performed using <b>molecular</b> WHO-recommended rapid diagnostics	LAB.1
Percentage of tests for TB that were positive using <b>molecular</b> WHO-recommended rapid diagnostics	$LAB.2 \times 100 / LAB.1$
<b>People diagnosed with TB disease</b>	
<i>Rapid testing for TB:</i> Percentage of people diagnosed with a new episode of TB who were initially tested with a WHO-recommended rapid diagnostic	$REG.39 \times 100 / REG.11$
Percentage of people with a new episode of TB that is clinically diagnosed who had a WHO-recommended rapid diagnostic test result	$REG.40 \times 100 / (REG.4 + REG.5 + REG.6)$
<i>Testing for bedaquiline resistance in people with rifampicin-resistant TB:</i> Percentage of people with pulmonary TB resistant to rifampicin who were tested for susceptibility to bedaquiline	$DST.31 \times 100 / DST.8$
<i>Testing for linezolid resistance in people with rifampicin-resistant TB:</i> Percentage of people with pulmonary TB resistant to rifampicin who were tested for susceptibility to linezolid	$DST.32 \times 100 / DST.8$
<b>People treated for TB disease</b>	
<i>Treatment outcomes disaggregated by age group and sex:</i> Percentage of TB patients in each of the following categories out of those diagnosed with TB, disaggregated by age group and sex: cured; treatment completed; treatment failed; died; lost to follow-up; not evaluated	(not applicable to the template annual reporting form shown further above as it would need a very complex and impractical table. This is more suited to digital case-based systems)
<b>Contacts of people diagnosed with bacteriologically confirmed TB disease</b>	
<i>Contact investigation:</i> Percentage of household contacts (or all close contacts) who were evaluated for TB (disease or infection)	$SCR.2 \times 100 / SCR.1$
<i>Initiation of TB preventive treatment among contacts:</i> Percentage of household contacts (or all close contacts) who were started on TB preventive treatment, out of those eligible	For contacts aged <5 years: $TPT.3 \times 100 / TPT.1$ For contacts of all ages: $TPT.4 \times 100 / TPT.2$
<i>Completion rate for TB preventive treatment among contacts:</i> Percentage of household contacts (or all close contacts) who completed TB preventive treatment	$TPT.5 \times 100 / (TPT.4 \text{ from the previous year})$

## References

1. Definitions and reporting framework for tuberculosis – 2013 revision: updated December 2014 and January 2020. Geneva: World Health Organization; 2013 (<https://apps.who.int/iris/handle/10665/79199>).

For further information, please contact:

**Global Tuberculosis Programme**

**World Health Organization**

20, Avenue Appia CH-1211 Geneva 27 Switzerland

Web site: [www.who.int/tb](http://www.who.int/tb)

