

Tuberculosis Indicators: *Quick Reference*

TITLE	INDICATOR	METHOD OF CALCULATION*
GOAL A: Ensure sufficient resources are available and effectively used to support a public health infrastructure capable of controlling and eliminating tuberculosis.		
A1: Program Capacity	Demonstrated capacity (organization, staffing, resources and facilities) to carry out the core components of a TB control program	TB Program Assessment Tool (TPAT)
GOAL B: Ensure early identification and reporting of all persons with tuberculosis.		
B1: TB Case Rate	TB case rate	$(\# \text{ of verified TB cases} / \text{LHJ population}) \times 100,000$
B2: Timely Reporting	Proportion of verified tuberculosis cases reported to the local health jurisdiction within 1 working day from treatment start date	$(\# \text{ of cases where report date is } \leq (\text{treatment start date} + 1 \text{ day})) / (\text{total } \# \text{ of cases reported in year of interest, alive at diagnosis and starting treatment, with complete reporting date})$
B3: Complete Reporting	Proportion of cases with complete data on key variables (homelessness, injecting drug use, non-injecting drug use, excess alcohol use) for tuberculosis	Calculated individually for each key variable: $(\# \text{ of cases with "yes" or "no" response (excludes "unknown" or missing)}) / (\text{total } \# \text{ cases alive at diagnosis})$
B4: Culture Identification	Proportion of pulmonary or laryngeal TB cases ≥ 12 years of age with sputum culture obtained	$(\# \text{ of pulmonary or laryngeal cases } \geq 12 \text{ years of age with sputum culture obtained}) / (\text{total } \# \text{ pulmonary or laryngeal TB cases } \geq 12 \text{ years of age})$
GOAL C: Ensure timely completion of appropriate therapy for all persons with tuberculosis.		
C1: Recommended Initial Therapy	Proportion of TB cases started on recommended 4-drug regimen	$(\# \text{ of cases initiated on at least the recommended 4-drug regimen}) / (\text{total } \# \text{ cases alive at diagnosis and with data on initial regimen})$
C2: Timely Treatment	Proportion of sputum smear-positive pulmonary or laryngeal TB cases initiating treatment in ≤ 7 days from specimen collection	$(\# \text{ of sputum smear (+) pulmonary or laryngeal cases initiating treatment in } \leq 7 \text{ days from isolate collection date}) / (\text{total } \# \text{ sputum smear (+) pulmonary or laryngeal cases alive at dx})$
C3: Culture Conversion	Proportion of sputum culture-positive TB cases with documented conversion to sputum culture-negative within 60 days of treatment initiation	$(\# \text{ of sputum culture (+) TB cases documented to have converted to sputum culture (-) within 60 days of the date of treatment initiation}) / (\text{total } \# \text{ sputum culture (+) TB cases alive at diagnosis and starting treatment} - \text{cases who die within 60 days of starting treatment})$

* Detailed information regarding indicator background and methods of calculations can be found in "TIP: Methods, Standards, and Rationale"

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GOAL C (cont.): Ensure timely completion of appropriate therapy for all persons with tuberculosis.		
C4-A: Appropriate Directly Observed Therapy (DOT)	Proportion of TB cases for whom DOT is recommended [†] who receive DOT throughout the course of treatment	(# cases for whom DOT is recommended [†] who receive DOT throughout the course of treatment) / (total # cases for whom DOT is recommended, alive at diagnosis and starting treatment – # cases who move during treatment)
C4-B: Inappropriate Self-Administered Therapy (SAT)	Proportion of TB cases for whom DOT is recommended [†] who receive SAT throughout the course of treatment	(# cases for whom DOT is recommended [†] who receive SAT throughout the course of treatment) / (total # cases for whom DOT is recommended, alive at diagnosis and starting treatment – # cases who move during treatment)
C5: Timely Completion of Therapy	Proportion of TB cases who complete treatment in ≤ 12 months	(# cases who complete treatment in ≤ 366 days) / (total # cases, starting rx, for whom < 1 year of rx is indicated)
C6: Not Defaulting From Treatment	Proportion of TB cases who do not default prior to completing treatment	(# cases who do not stop therapy because they were lost or refused further treatment) / (total # cases starting treatment)
GOAL D: Ensure contacts to a person with infectious tuberculosis are promptly identified, examined, and if appropriate, complete treatment for latent TB infection (LTBI).		
D1: Contact Identification	Proportion of sputum smear-positive cases with at least one contact identified	(# sputum smear-positive cases with 0 contacts identified / # sputum smear-positive cases for investigation)
D2: Contact Evaluation	Proportion of identified contacts to sputum smear-positive cases who complete evaluation for TB infection or disease	(# contacts to sputum smear-positive cases evaluated) / (# contacts to sputum smear-positive cases identified)
D3: Contact Treatment Initiation	Proportion of infected contacts to pulmonary cases started on treatment for LTBI	(# infected contacts starting treatment for LTBI) / (# infected contacts to pulmonary cases identified)
D4: Contact Treatment Completion	Proportion of infected contacts to pulmonary cases started on treatment for LTBI, who complete treatment	(# infected contacts completing treatment for LTBI) / (# infected contacts starting LTBI treatment)
GOAL SE: Reduce the occurrence of sentinel events.		
SE1: Pediatric TB Cases	Proportion of TB cases in children 0-4 years old	(# cases reported in persons <5 years) / (total # of TB cases)
SE2: TB Deaths	Proportion of persons who die with TB	(# cases diagnosed after death or dying during TB therapy) / (total # of TB cases)

* Detailed information regarding indicator background and methods of calculations can be found in “TIP: Methods, Standards, and Rationale”

[†] per California Department of Public Health / California TB Controllers Association, and HIV/MMWR, guidelines – case characteristics for which DOT is recommended *that can be determined in time to institute DOT throughout treatment* include ≤ 18 years of age, history of TB, homelessness, alcohol use, injecting/non-injecting drug use, diagnosis in a correctional or long-term care facility, HIV-infected, and/or sputum smear positive. These are used to define the cohort for indicator C4-A. Other characteristics for recommended DOT are resistance to isoniazid and/or rifampin, and culture conversion > 60 days. These two characteristics, in addition to the ones used for C4-A, are used to define the cohort for C4-B.