
WHO guidance on TB surveillance (2024)

an overview

TB Monitoring, Evaluation and Strategic Information Unit
Global Tuberculosis Programme

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Consolidated guidance on tuberculosis data
generation and use: module 1:

Tuberculosis surveillance

<https://iris.who.int/handle/10665/376612>



Consolidated guidance on
tuberculosis data generation and use
Module 1

Tuberculosis surveillance

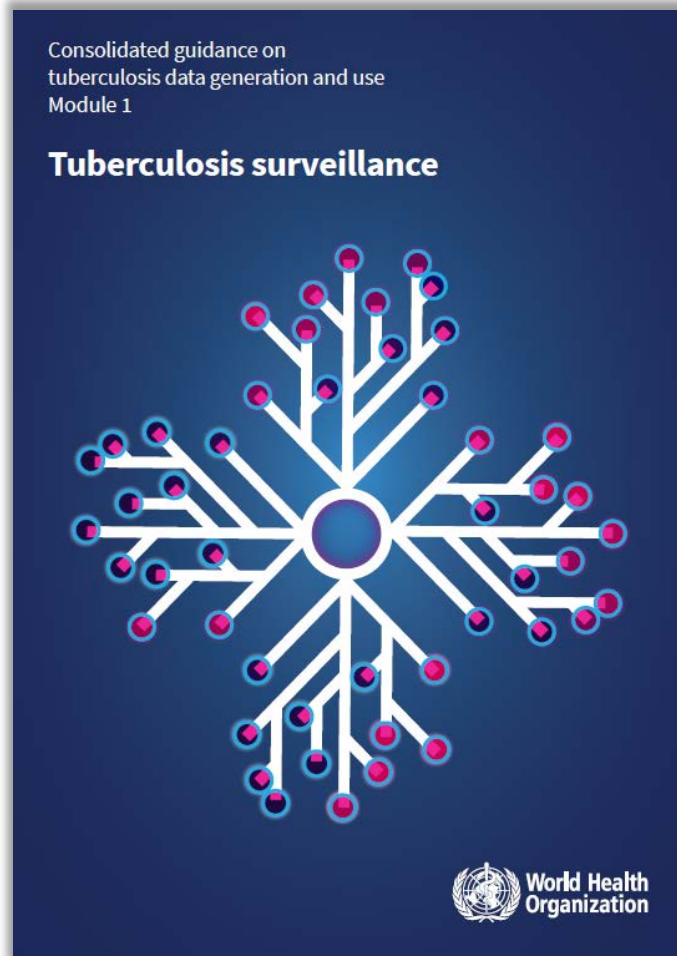


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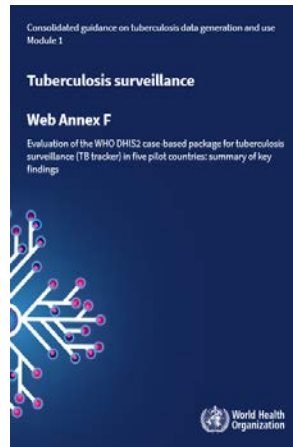
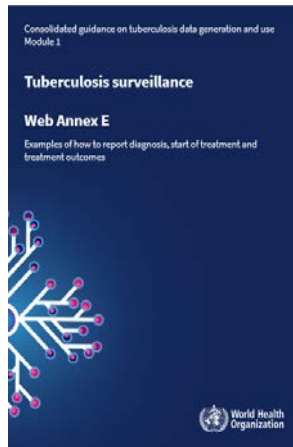
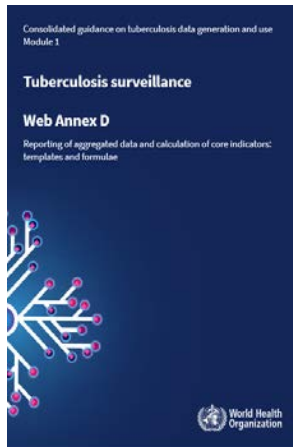
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6. Digital TB surveillance
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WEB ANNEXES

- A. TB surveillance: commonly observed problems and suggested solutions
- B. WHO TB surveillance checklist (2nd edition)
- C. Record-linkage exercises
- D. Reporting templates (quarterly and annual data) + formulae to calculate indicators
- E. Examples of reporting scenarios for diagnosis, start of treatment and treatment outcomes
- F. Summary of an evaluation of case-based DHIS2 implementation in five countries

What's new?

What's new? (1/2)

1. **Consolidated and comprehensive package** on TB surveillance, combining updated guidance on TB surveillance and related WHO products (e.g. 2nd edition of the TB surveillance checklist, guidance on record-linkage exercises)
2. **Major overhaul of how content is packaged and presented** so that it is well suited to both case-based digital and paper-based aggregated TB surveillance
 - Previous editions (up to 2014) focused on providing standard templates (forms) for the data to be recorded and reported in paper-based systems
 - 2024 edition focuses on defining **core indicators** to report and use & the **core data items** that need to be collected to calculate these indicators, applicable to both case-based digital & paper-based systems
 - Clear distinction between a) core indicators and data items relevant for all countries, b) core indicators relevant for countries with case-based digital systems only, and c) additional indicators and disaggregations that can be considered in countries with case-based digital surveillance, according to country context
 - Standard templates for paper-based systems are still provided! (Web annex D)
3. **A few updates to terms and definitions related to TB surveillance** (e.g. 'relapse' is now called 'recurrent', 'retreatment' is now called 're-registered')

What's new? (2/2)

4. **All terms, definitions & indicators updated to fully align with latest WHO guidelines** on TB prevention, diagnosis and treatment, and 2020 WHO consultation on definitions and outcomes for drug-resistant TB
5. **Rapid (close to “real-time”) reporting of one indicator now recommended** – this is the number of notified cases of people newly diagnosed with TB, on either a weekly or monthly basis
6. **Diagnosis and enrolment on treatment:** now to be clearly **reported separately**, to monitor initial deaths and loss to follow-up and allow calculation and reporting of **new indicator ‘case outcome’**
7. **Reporting treatment outcome** is now the **responsibility of the final facility where treatment was provided** (as opposed to where treatment was started)
8. **Guidance provided on how to establish or strengthen case-based digital TB surveillance**, including WHO available packages, and how to ensure one unified system for TB surveillance (drug-susceptible and drug-resistant TB) with linkages to other components of public health surveillance
9. Framework for assessment of **data quality** provided

Rationale for the development of new guidance on TB surveillance

Rationale

1. Previous guidance (2013/2014) had become outdated
 - New WHO guidelines on TB diagnosis, treatment and prevention
 - Updated recommendations for the surveillance of drug-resistant TB, following 2020 consultation
 - Expansion of use of digital case-based surveillance
 - Growing demand for more timely reporting of data
 - Lessons learned from >100 national TB epidemiological reviews implemented since 2013
2. It's an opportunity to bring all WHO guidance on TB surveillance and associated products and documentation together in one place

GOAL:

To ensure continued worldwide standardisation of TB surveillance in the context of WHO's End TB Strategy and the latest WHO guidelines on TB diagnosis, treatment and prevention, while also promoting the use of digital case-based TB surveillance.

Process for guidance development

Development process

- Built on the foundation of the 2013/2014 Definitions and reporting framework
- Updates based on:
 - End TB Strategy
 - Latest WHO clinical guidelines on TB
 - 2020 WHO consultation on definitions of cases and treatment outcomes for people with drug-resistant TB
 - Global synthesis of over 100 national TB epidemiological review implemented 2013–2021
 - Discussions and engagement with wide network of national TB programmes, subject matter experts, and stakeholders
- Updates also informed by 2023 UN high-level meeting political declaration
- Development led by core team of WHO staff from headquarters and regional offices
- Content informed by feedback from multiple partners and countries on chapter drafts and by feedback provided from briefings at meetings/workshops
- Case studies were provided by selected countries

Purpose, principles and scope

Purpose

TB surveillance: Systematic and continuous collection, analysis, reporting and use of data related to TB infection and disease in the population

Essential for:

1. Reliable monitoring of TB epidemics
2. Assessment of progress towards national, regional and global targets
3. Assessment of the performance of TB services
4. Informing planning, budgeting, policy, programmatic and clinical actions

Principles

1. TB surveillance should be based on clear, comprehensive and standardised definitions
2. TB surveillance should be limited to the collection and reporting of data that will be used and that addresses specific predefined objectives
3. Guidance on TB surveillance should be applicable to both case-based digital and more traditional paper-based systems, while promoting the transition to case-based digital surveillance
4. All collected data should be quality assured for completeness and accuracy
5. The frequency with which data and indicators need to be reported and used varies according to their intended use and should be clearly specified
6. TB surveillance in individual countries should benefit from experiences and lessons learned in other countries

Scope

What is covered?

- **Who:** Collection, reporting and use of data for people with presumptive TB, people diagnosed with TB disease or TB infection, and people at risk of TB disease or infection
- **What:** A core set of indicators and the data items that need to be collected to calculate them
- **Where:** (What locations) Collection of data at health facilities, laboratories, within household and workplaces, and via mobile services in the community
- **Type of data:** data that are routinely collected and reported on an ongoing basis as part of national health information systems

What is not included?

- Additional data required for management individual patient care (e.g. request forms for laboratory tests, scheduling patient visits)
- Collection and reporting of data through periodic population or health-facility based cross-sectional surveys (e.g. national TB prevalence surveys, national surveys of TB drug-resistance), or for research studies
- Collection, reporting and analysis of TB data related to mortality in civil registration and vital statistics systems

Terms and definitions

Updated terms (no change in definition) (Chapter 3)

Instead of saying...	We now say...
Relapse	Recurrent
Retreatment	Re-registered (for treatment)
New or relapse	New episode

Definitions of these updated terms remain the same as the definitions in the 2013/2014 reporting framework.

Changes do not have to be made *immediately* at the health facility level. Updated terms will be used for global reporting and could be introduced for national reporting with a timeline appropriate to the country context.

Updated terms (no change in definition) (Chapter 3)

Old term	New term	Definition	Reason for update
Relapse case	Recurrent case	A person with TB disease who has previously been treated for TB, was declared <i>cured or treatment completed</i> at the end of their most recent course of TB treatment and is now diagnosed with a new episode of TB. Same as previously	Better alignment with case definitions commonly used in clinical trials.
Retreatment	Re-registered (for treatment)	A person with TB disease who has been notified previously as a TB case, who started treatment and took TB drugs for at least 1 month but who was not declared <i>cured or treatment completed</i> , and is now being started on a new course of TB treatment. Same as previously	More accurate descriptor for people who start a new regimen.
New or relapse case	New episode	A person with TB disease who is classified as a new case, a recurrent case or a case with unknown previous treatment history (i.e. any case apart from a re-registered case). Same principle as previously	Simplified and more concise descriptor of people newly diagnosed with TB.

Updated terms and definitions (Chapter 3)

Old	New	Reason for update
–	Case outcomes	To allow for the assessment of outcomes for all patients registered as a TB case, irrespective of whether they started treatment.
Treatment outcome categories: some definitions were different for DS-TB and DR-TB.	Treatment outcome categories: definitions for DS-TB and DR-TB are now all the same.	It allows for considerable simplification and streamlining of definitions. It is consistent with the outcomes of a WHO consultation convened in 2020.
Change to a different treatment regimen: recorded as “transferred”.	Change to a different treatment regimen: recorded as failed.	Optimal treatment should be identified at the start of treatment. Ensures more accurate assessment of treatment outcomes.


What is a regimen change?

- A change between and two of the following regimens: 6-month, 9-month and long-term individualised regimen.
 - E.g. 6-month to long-term individualised, 6-month to 9-month, 9-month to long-term individualised.
- For long-term individualised treatment: suggested interpretation is change of ≥ 2 medications.

Core indicators to report and use

Core indicators to report and use (Chapter 4)

- One core indicator defined for weekly/monthly reporting (all countries, both paper-based and case-based digital systems)
- Table of core indicators for reporting and use (all countries, both paper-based and case-based digital systems)
 - Includes *new indicators for treatment initiation and case outcomes, & more details for DST coverage and results*
- Table of five additional indicators recommended in all countries with case-based digital surveillance
 - Rapid testing, contact investigation, TB preventive treatment
- Table of additional disaggregations or indicators *to be considered* in countries with case-based digital surveillance
- Visualisations of core indicators for quarterly and annual reporting




Separate tables for quarterly and annual reporting

See the **dedicated slide-set for Chapter 4** for more details

Core data items to collect

Core data items to collect (Chapter 5)

- Table for core set of data items to record for every person with TB disease (all countries, both paper-based and case-based digital systems)
 - Table for data items required for every person with presumptive TB
 - Table for data items required to calculate the coverage of rapid testing
 - Table for data items for every household contact of every person diagnosed with a new episode of bacteriologically confirmed pulmonary TB disease
 - Table that provides examples of data items required for additional disaggregations of data for people diagnosed with TB
 - Table of data items required in source facility TB register to track transfers between facilities
 - Table of data items required in the destination facility TB register for tracking transfer between facilities
 - Table of data items required for case denotification
- 
- Only for countries with a case-based digital surveillance system

See the dedicated slide-set for Chapter 5 for more details

Digital surveillance

Digital surveillance (Chapter 6)

- A clear description of the advantages of case-based digital surveillance systems and how they should be used in practice
- Eight case studies of national experience in establishing and enhancing case-based digital TB surveillance (Georgia, Indonesia, Iran, Mongolia, the Netherlands, the Philippines, the United Kingdom, and the United Republic of Tanzania)
- A description of the WHO digital packages for TB surveillance (aggregate and case-based data)

Data quality

Data quality (Chapter 7)

- Defines data quality across 6 dimensions: accuracy, completeness, consistency, timeliness, validity and uniqueness
- A description of data governance and system design features to help ensure data quality, including data confidentiality and safety
- A description of routine and periodic data validation checks recommended to carry out at different levels of health system, for both paper-based and digital systems

Next steps

Next steps (not exhaustive)

- Development and publication of FAQs
- Global dissemination webinars by Global Tuberculosis Programme
- Publication of translated version of the guidance in all other official WHO languages
 - Arabic, Chinese, French, Spanish, Russian
- Multi-country workshops on new surveillance guidance uptake and use, and related topics
- Use the new terms and definitions in WHO's 2025 round of global TB data collection – recognising that many countries will take time to adopt
- Updates to WHO TB country profiles to reflect core indicators
- Updates to WHO TB digital packages to align with new TB surveillance guidance (in process)

For further information, contact:
tbdata@who.int

Links to the guidance on TB surveillance

Consolidated guidance on tuberculosis data generation and use: module 1: **Tuberculosis surveillance**
<https://iris.who.int/handle/10665/376612>

Web annex A: Commonly observed problems and associated solutions.
<https://iris.who.int/handle/10665/376481>.

Web annex B: Standards and benchmarks for tuberculosis surveillance and vital registration systems: checklist, 2nd ed.
<https://iris.who.int/handle/10665/376483>

Web annex C: Record-linkage exercises.
<https://iris.who.int/handle/10665/376484>

Web annex D: Reporting of aggregated data and calculation of core indicators: templates and formulae.
<https://iris.who.int/handle/10665/376486>

Web annex E: Examples of how to report diagnosis, start of treatment and treatment outcomes.
<https://iris.who.int/handle/10665/376489>

Web annex F: Evaluation of the WHO DHIS2 case-based package for tuberculosis surveillance (TB tracker) in five pilot countries: summary of key findings.
<https://iris.who.int/handle/10665/376490>

