

Appendix B: Glossary

Term	Chapter Number	Definition
Acid-fast bacilli (AFB) smear	5	Microscopic examination of a specimen (e.g., sputum) or a processed sediment for detection of AFB. The most common method uses fluorescence staining. AFB-smear microscopy is not specific for <i>M. tuberculosis</i> complex. AFB-smear microscopy may also be performed to verify the presence of AFB in positive cultures prior to confirmatory species identification.
Active surveillance	4	Health departments actively contact and interact with healthcare facilities or individual providers to stimulate disease reporting, sometimes directly assuming the primary responsibility of reporting cases from large or high-volume institutions.
Calculated variable	5, 9	CDC-developed variables, calculated from existing information, to simplify certain algorithms.
Case detection	3, 4	Detection of one instance of a specific disease or exposure, e.g., TB. A front-line surveillance activity, it is typically accomplished as a by-product of routine medical or veterinary care, or laboratory work, or via an astute observer such as a health care worker.
Case Verification Criteria (VERCRIT)	3, 5	An RVCT calculated variable used for verifying a TB case.
CDC data warehouse	2	CDC database used for reporting and analysis. The data stored in the warehouse are uploaded from the operational systems and may pass through an operational data store for additional operations before they are used for reporting.
Clinical specimen	5	Material taken directly from the patient (e.g., sputum, cerebral/spinal fluid, pleural fluid, or lung biopsy specimen).
Cohort	9	A group of TB patients managed over a specific period of time, usually 3 months.

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Cohort review	9	A systematic review process for managing patients. TB cases in a specific cohort are reviewed for the patient's clinical status, the adequacy of the medication regimen, treatment adherence or completion, and the result of contact investigation.
Commercial surveillance software	5, 6, 9	A web-based surveillance system developed by a private company.
Completion of therapy (COT)	5	Therapy is completed within one year from start of treatment or as indicated by the patient's medical provider.
Content validation	2	Process used to validate state-generated Health Level 7 (HL7) 2.5 TB case notification messages (e.g., date of birth occurs before the date of death).
Country of birth (COB)	9	The country where a person was born. See RVCT item 12. For a more detailed explanation see Report of Verified Case of Tuberculosis (RVCT): Self-Study Modules, RVCT item 12 – Country of Birth http://www.cdc.gov/tb/programs/rvct/default.htm .
Country of origin	6, 9	A calculated variable that combines the responses for RVCT item 12, Country of Birth, to determine U.S.-born or foreign-born status. The reason for this calculation is to obtain rates using the only available population estimates from the U.S. Census Bureau's American Community Survey.
Data accuracy	3,5	The data submitted matches patient records maintained at the point of care. The recorded data in the surveillance system are consistent with what happens in a clinical encounter, whether or not it is clinically appropriate.
Data completeness	3, 6, 9	A measure that indicates whether the information submitted contains the complete set of mandatory data items.
Data confidentiality	3, 8	The protection of personally identifiable information collected by public health organizations.
Data quality	3	The accuracy and completeness of the data recorded in the TB surveillance system.
Data security	3, 8	The protection of public health data and information systems to prevent unauthorized release of identifying information and accidental loss of data or damage to the systems.

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Data timeliness	3, 7	Prompt reporting of surveillance data to health authorities.
Data validation	5	The process of verifying that the data provided originate from valid data. The process can be used to calculate the percent discordance between the TB patients' medical records and the surveillance system data.
Decline in reported tuberculosis	4	A large, unexpected decline in TB cases beyond the statistically expected range.
Direct detection	5	Rapid detection (usually 2 days) of nucleic acid (e.g., RNA or DNA) sequences of interest in organisms present in a clinical specimen. Nucleic Acid Amplification (NAA) test is an example of direct detection.
Discordance	5	The data entered in the system are different from the data in the patient's medical records.
Electronic Report of Verified Case of Tuberculosis (eRVCT)	5, 6, 9	A web-based surveillance system for reporting TB cases developed by CDC's DTBE and available to all reporting jurisdictions. The system is based on the RVCT form.
Final TB Case Count	7	Reporting jurisdiction's final TB case count transmitted in April. It includes the RVCT; Follow-up 1 Report (Initial Drug Susceptibility Report); and Follow-up 2 Report (Case Completion Report for previous 2 years). For example: RVCT 2012, Follow-up 1 2012, Follow-up 2 2011). Only countable cases are included.
Firewall	2	A computer software program or hardware with a predetermined set of rules that controls the incoming and outgoing network traffic. Data are analyzed to determine whether they should be allowed through or not. A network's firewall builds a bridge between an internal network that is assumed to be secure and trusted, and another network, usually an external network, such as the Internet, that is not assumed to be secure and trusted.

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Genotype	9	A specific genetic pattern or strain that is detected by one or more of the genotyping techniques used for <i>M. tuberculosis</i> : spoligotyping, MIRU-VNTR analysis, or IS6110-based RFLP. National terminology for genotype is based on either spoligotype and 12-locus MIRU-VNTR (PCRTyping, e.g., PCR00002), or spoligotype and 24-locus MIRU-VNTR (GENTyping, e.g., G00011). GENTyping is routinely available for all culture-confirmed TB cases reported after April 2009.
Genotyping Accession Number	9	The tracking number assigned to each TB isolate received by a genotyping laboratory. Accession numbers are formatted as a 2-digit year, followed by either an L or RF depending on which genotyping lab assigned the number, and a unique 4-digit number that is assigned sequentially (e.g., 06L1058, 11RF0005, 12L3788). The California genotyping laboratory assigns L, and the Michigan laboratory assigns RF in their accession numbers.
Genotyping laboratories	9	The laboratories funded by CDC to provide TB genotyping services to state and local TB control programs. For 2004-2013, these laboratories are located at the Michigan Department of Community Health and the California Department of Health Services.
Health Level 7 (HL7) code	2, 5	A code developed to promote and facilitate use of international healthcare informatics interoperability standards. HL7 code provides a framework (and related standards) for the exchange, integration, sharing, and retrieval of electronic health information.
Indicators	9	Measures for assessing performance or progress of a program or activity.
International Classification of Disease, 9th edition, Clinical Modification (ICD) 9 codes	4	A standardized classification of diseases, injuries, and causes of death, by etiology and anatomic localization, and codified into a 6-digit number, which allows clinicians, statisticians, policy makers, health planners, and others to speak a common language, both in the United States and internationally. Note that ICD codes are updated periodically.
Invalid, Missing and Unknown (MUNK)	6, 9	RVCT variables that are either invalid, missing, or unknown.

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Isolate	5	A sample from a specimen that was identified as a certain organism such as <i>M. tuberculosis</i> complex from a culture. Culture media may be solid (e.g., Lowenstein-Jensen [LJ] or Middlebrook) or liquid (e.g., MGIT, VersaTrek, BacTAlert, 7H9 broth).
Linking	9	The process of connecting a TB genotype result from a specific isolate to the corresponding surveillance record for the patient that was the source of that isolate. Linking in the context of genotyping is different from RVCT item 3, Linking State Case Number.
Miliary tuberculosis	5	Miliary TB is a serious type of disease. It is based on a histological or radiologic finding, rather than a site of disease. The diagnosis is supported by the appearance on radiograph as a great number of small, well-defined nodules that look like millet seeds scattered throughout the lungs, hence the name “miliary.”
<i>Mycobacterium tuberculosis</i>	5	The bacterium that causes tuberculosis. It has a waxy cell wall and is slow growing. It is sometimes called the tubercle bacillus.
<i>Mycobacterium tuberculosis</i> complex (MTBC)	5	In addition to <i>M. tuberculosis</i> , the complex includes seven other TB-causing mycobacteria: <i>M. bovis</i> , <i>M. africanum</i> , <i>M. microti</i> , <i>M. canetti</i> , <i>M. caprae</i> , <i>M. pinnipedii</i> , and <i>M. mungi</i> .
National Electronic Disease Surveillance System (NEDSS)	2, 5, 6, 9	A web-based surveillance system with an infrastructure developed by CDC that uses specific Public Health Information Network (PHIN) and NEDSS messaging standards.
National TB Indicators Project (NTIP)	2, 5, 6, 9	A monitoring system using standardized definitions, indicators, and calculations to track progress toward attaining national TB program objectives.
National TB Program Objectives	9	Objectives that reflect the national priorities for TB control in the United States.
National Tuberculosis Surveillance System (NTSS)	2, 5, 6, 9	The only national repository of TB surveillance data in the United States. NTSS receives data on TB cases from reporting jurisdictions’ web-based systems through a standardized data collection form, the Report of Verified Case of Tuberculosis (RVCT).

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NTSS reporting jurisdictions	6, 9	All 50 U.S. states, the District of Columbia, New York City, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the U.S. Virgin Islands.
Nucleic Acid Amplification (NAA)	5	A technique that amplifies (copies) DNA or RNA segments, in order to directly identify microorganisms in sputum specimens.
Overall Responsible Party (ORP)	8	High-ranking official who accepts overall responsibility for implementing and enforcing data security standards. This official should have the authority to make decisions about program operations that might affect programs accessing or using the data, and should serve as a contact for public health professionals regarding security and confidentiality policies and practices. The ORP is responsible for protecting data as they are collected, stored, analyzed, and released and must certify annually that all security program requirements are being met. The state's security policy must indicate the ORP(s) by name.
Passive surveillance	4	Health departments passively receive case reports from health care providers and are dependent on health care providers to comply with reporting requirements.
Percent discordance	5	The calculation that divides the number of discordant records by the number of records reviewed.
Personally identifiable information (PII)	8	Any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records; and (2) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information.
Probe	5	A piece of single-stranded nucleic acid that hybridizes specifically to the complementary sequence of RNA or DNA in the sample. Probes are used to detect the presence of <i>M. tuberculosis</i> within a clinical specimen or culture.

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Provisional TB Case Count	7	Reporting jurisdiction’s final total TB case count for the preceding year transmitted to CDC for the World TB Day Morbidity and Mortality Weekly Report (MMWR) publication in March of each year. Cases must meet case verification criteria for counting as a case. This includes countable cases only.
Public Health Information Network (PHIN) code	2, 5, 6, 9	A standardized code used by computer programmers to assign TB data to a specified RVCT variables. These variable codes are essential in transmitting data to CDC. Several data issues have been attributed to errors on data system programming involving PHIN codes. For example, if a code is incorrect, the data can disappear. If the data are all missing, check the PHIN Variable ID.
Public Health Information Network Messaging System (PHINMS)	2	Local, state, and federal governments use the Public Health Information Network Messaging System, PHINMS, (pronounced “fin em es”) to rapidly and securely send messages, which contain sensitive health information, over the internet to other organizations as well as to the CDC. The data are securely encrypted to ensure patient information is protected.
Quality assurance	3	A continuous process to improve TB surveillance data that includes a continuous cycle of planning, doing, checking, and improving data quality.
Report of Verified Case of Tuberculosis (RVCT)	2, 5, 6, 9	The NTSS standardized data collection form. Data are collected by 60 reporting jurisdictions and submitted electronically to CDC. Data are used to monitor national TB trends, identify priority needs, and create the DTBE annual surveillance report, Reported Tuberculosis in the United States.
Secure Access Management Services (SAMS)	5, 6	A federal information technology system that gives authorized personnel secure, external access to non-public CDC applications.
Skip pattern	5	Data response pattern that allows one to skip automatically when data entered for a field is not expected.
State-built surveillance system	6	A web-based surveillance system developed by a reporting jurisdiction.

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State Case Number	9	The official identification number for the case; commonly known as the RVCT number. If additional communication about a record is required between CDC and a reporting area, this number is used to identify the record.
Steps in a TB surveillance system	7	Steps are suspecting TB disease, reporting to the local health department, verifying the TB case, counting the case, identification of trends or outbreaks, or the effect of prevention and control measures.
Structural validation	2	This is part of a flexible message-quality framework of services and utilities designed to assist public health partners with preparing and communicating quality standard electronic messages, as defined by the applicable messaging standards. This is used to validate standard HL7 messages per defined message specification guidelines.
Submitter number	9	A tracking number assigned to an isolate by a state public health laboratory. The format of the submitter number varies by state. Most state laboratories refer to this as an accession number; however, it is not the same number as a “genotyping accession number.”
Surveillance	2	An on-going systematic collection, analysis, interpretation, and dissemination of data to allow TB programs to target resources and interventions that will provide the most impact in eliminating TB. These data are essential in describing morbidity and mortality, monitoring trends in TB incidence and prevalence, detecting potential outbreaks, and defining high-risk groups.
Surveillance artifact	4	Factors influencing the reported number of TB cases because of misrepresentation of data due to changes in TB surveillance variables or systems, less active case finding because of staffing shortage or other disease priorities, or introduction of new diagnostic tests.
TB data mart	2	A subset of the CDC data warehouse that contains RVCT data submitted from the states and used to supply data to the Division of Tuberculosis Elimination.
Timeliness measure	7	The time interval linking any of the steps in TB surveillance.

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Tuberculosis Genotyping Information System (TB GIMS)	2, 5, 6, 9	A secure web-based system designed to improve access, management, and application of genotyping data at the state and local level. As part of the NTSS, TB GIMS contains tools to detect and prioritize TB outbreaks.
Tuberculosis Information Management System (TIMS)	2, 5, 6, 9	TIMS was a Windows-based, client-server application that helped health departments and other facilities manage TB patients, conduct TB surveillance activities, and manage TB programs overall. TIMS replaced former DTBE software (SURVS-TB and TBDS) and provided for electronic transmission of TB surveillance data and program management reports. TIMS was replaced by web-based surveillance systems in 2009.
Underdiagnosis	4	Failure to recognize or correctly diagnose a disease or condition, especially in a significant proportion of patients.
Underreporting	4	Reports are not received due to delays or disruption in flow of TB case information from the reporting jurisdictions to CDC, or because reports are absent from hospitals, other providers, or laboratories.
U.S.-born	9	A person born in 1 of the 50 states or the District of Columbia, or a person born outside the United States to at least one parent who was a U.S. citizen. For a more detailed explanation see Report of Verified Case of Tuberculosis (RVCT): Self-Study Modules, RVCT item 12 – Country of Birth http://www.cdc.gov/tb/programs/rvct/default.htm .
Verbal TB Case Count	7	Reporting jurisdiction's total TB cases to date (reported and counted cases) provided to CDC verbally from September of the current year to March of the following year.

