# Manual on use of routine data quality assessment (RDQA) tool for TB monitoring



World Health Organization Stop TB Department, Geneva







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## Abbreviations

4-FDCs	Four-drug fixed-dose combination tablets
ART	Anti-retroviral therapy
СРТ	Cotrimoxazole preventive therapy
BMU	TB basic management unit (with at least TB microscopy and treatment facility)
DOTS	The basic package that underpins the Stop TB Strategy
DST	Drug sensitivity testing
DQA	Data Quality Audit
IUATLD	International Union Against Tuberculosis and Lung Disease
M&E	Monitoring & evaluation
MDR-TB	Multidrug-resistant tuberculosis
NTCP	National TB control programme
PICT	Provider-initiated counselling and (HIV) testing
PLHIV	Person living with HIV
RDQA	Routine Data Quality Assessment
WHO	World Health Organization

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The Routine Data Quality Assessment tool and this document were prepared by Dr Pierre-Yves Norval, Stop TB Department, WHO, Geneva, and by Dr Jacques Sebert, TB Medical Officer, WHO, Lao People's Democratic Republic.

WHO Stop TB Department, KNCV, the Union participated in 2007 in the development and the pilot testing of the Global Fund tool on DQA (Data Quality Audit) published in 2008 <u>http://www.theglobalfund.org/documents/me/DQA\_Tool.pdf</u>. As a follow up of this work, WHO Stop TB, the Union and KNCV develop a similar tool more specific to TB data and for in-country use. A writing committee composed of 4 persons representing the above 3 organizations (Dr Jerod Scholten of the KNCV Tuberculosis Foundation, Dr Ignacio Monedero of the International Union Against Tuberculosis and Lung Disease, Drs Jacques Sebert and Pierre-Yves Norval from WHO) was established and an initial version was developed and pilot tested in 4 countries (Rwanda, Laos PDR, Kazakhstan and El Salvador). A second draft was tested in Laos and Rwanda and findings discussed and commented by the Stop TB Impact assessment task force, the Global Fund Secretariat and NTP managers and Global Fund Principal Recipients representatives from 35 countries attending a workshop on Global Fund grant implementation held in March 2010. The writing committee met 4 times during the entire process that lasted 9 months.

## 1. Background

The purpose of this document is to guide tuberculosis (TB) programme supervisors and others interested in Routine Data Quality Assessment (RDQA) for TB monitoring. Such people may come from district hospitals/centres, health centres and health posts; the intermediate level (regional/provincial); or the monitoring and evaluation (M&E) unit at central level (the national TB programme, or NTP).

Health facilities audited include TB diagnosis and/or treatment units at any of the three levels of care. Private health partners/facilities working in partnership with NTPS are also considered as health centres. Community support (such as that given by community health workers) is not considered as a "health centre". One RDQA checklist spreadsheet is filled in for each district, province/region and central M&E unit audited.

Indicators' power for measuring the impacts and outputs of TB control interventions depends on the capacity of the TB programmes themselves to establish and maintain the quality of the data collected.

#### Data quality audit and routine data quality assessment

The Secretariat of the Global Fund to Fight AIDS, Tuberculosis and Malaria, the WHO Stop TB Department, the KNCV Tuberculosis Foundation and the International Union Against Tuberculosis and Lung Disease (the Union) collaborated to develop a Data Quality Audit (DQA) tool for TB. This tool is intended to verify reported programme data and to strengthen monitoring and reporting systems.

The WHO Stop TB Department, the KNCV Tuberculosis Foundation and the Union subsequently developed a simplified tool, the Routine Data Quality Assessment tool (RDQA). The RDQA is designed for use by NTPs, projects and technical partners both to measure periodic data quality of M&E; and to facilitate routine supervision (by NTPs for example) and review (by, for example, NTPs and all partners).

#### Related monitoring and evaluation tools for TB control

The RDQA tool refers to the key Monitoring and Evaluation (M&E) tools for TB control and can be accessed from www.who.int/tb/strategy/stop\_tb\_strategy. A selection of related indicators is available in the Stop TB Strategy Tools (2010), available from

 $http://www.who.int/entity/tb/dots/planningframeworks/r10\_TB\_planning\_tool\_21\_06\_10.doc$ 

The WHO Stop TB Department, KNCV Tuberculosis Foundation, the Union, the Centers for Disease Control and Prevention and members of the TB M&E Expert Group developed the "Revised TB recording and reporting forms and registers – version 2006" (WHO/HTM/TB/2006.373). This document is the backbone of the TB data collection system at country level allowing partners to collect, report, monitor and analyse TB data. It facilitates the monitoring of the six components of the Stop TB Strategy. It can be accessed from www.who.int/tb/dots/r\_and\_r\_forms.

The standard indicators in the Global Fund M&E Toolkit are common with those of the Stop TB Strategy framework. They provide information on rationale for use; definition of indicators, including numerator and denominator; and measurement (comprising measurement tools, recommended periodicity of data collection, and source documents).

It can be accessed at http://www.theglobalfund.org/documents/me/M\_E\_Toolkit\_P2-TB\_en.pdf.

## 2. Routine data quality assessment tool - the RDQA

#### Definitions

The RDQA tool for TB is intended (i) to assess and measure rapidly the quality of data recording and reporting systems on a regular basis; and (ii) to monitor and improve data recording and reporting systems. It provides self-assessment by programme; measures the quality of the data collection system; and offers flexible use for monitoring and supervision or to prepare for an external audit.

Generally, the quality of reported data is dependent on the underlying data management and reporting systems; stronger systems should produce better quality data. In other words, for high-quality data to be produced by and flow through a data management system, key functional components need to be in place at all levels of the system:

- district health facilities (peripheral health centres and district health centres also known, in TB programme terms, as basic management units [BMUs]);
- the intermediate level(s) where the data are aggregated (e.g. provinces or regions); and
- the M&E unit at the highest level to which data are reported.

The RDQA tool is therefore designed to assess and measure the quality of the data, and to monitor and improve the system that produces that data.

The potential users of the RDQA tool include TB programme managers and health staff involved in TB control at district, intermediate and central levels as well as in-country donors and partners.

#### Purposes of the RDQA tool

The RDQA tool can serve several purposes. It can enable:

- *Routine data-quality checks as part of ongoing supervision*. Such checks can be included in supervision visits at the service delivery sites.
- Assessments of data management and reporting systems. Repeated assessments (e.g. biannually) of a system's ability to collect and report high-quality data at all levels can be used to identify gaps and monitor improvements.
- *Strengthening staff capacity in data management and reporting.* M&E staff can be trained in the RDQA and in strengthening data management and reporting to produce high-quality data.
- *Preparation for a formal data-quality audit.* The RDQA can help identify data-quality issues and areas of weakness in the data management and reporting system that need to be strengthened for a formal data-quality audit. (Such audits use the DQA tool).
- *External assessment of data quality by partners.* The RDQA is more streamlined and less resource intensive than the DQA.

## 3. Methodology

#### **Five attributes**

The RDQA tool has five attributes that build one indicator for the quality of the TB recording and reporting system: *accuracy–reliability* (data measure what they are intended to measure and measures do not change according to who is using them and when or how often they are used); *completeness* (all inclusive and not partial); *timeliness* (up-to-date and available on time); *availability* (the data collection system has the necessary source documents and details, including a written procedure); and *integrity/spot check* (no deliberate bias or manipulation).

While it is recommended that all five attributes be used to fully assess data quality, parts of these attributes can be applied and adapted to local contexts. Parts can be implemented at any or all three levels of the data management and reporting system.

#### Procedure

Preferably all districts and provinces/regions in one country should be assessed on a cycle basis of one to three years, depending on the number of districts and workforce headcount.

A spreadsheet (in Microsoft Excel) should be filled in by TB supervisors, ideally on notebook computers at the supervision site. Data should be copied for backup either on the Internet when available or on memory keys. Hard copies of data files at the end of the RDQA procedure should be kept at each supervision site.

Alternatively, a central database made accessible via Internet could be developed where information technology (IT) expertise is available and where Internet access is well decentralized.

One indicator should be selected depending on specificities of the site supervised, e.g. one indicator for TB and one indicator for multidrug-resistant-drug resistant TB (MDR-TB) services:

- Case notification or treatment outcome for new smear-positive TB cases;
- Case notification or treatment outcome for confirmed MDR-TB cases (smear and/or culture).

One indicator on notification or outcome is representative of the quality of the TB data system and does need to be completed with a second indicator. In case of separate TB and MDR-TB registration systems, a second indicator would relate to MDR-TB.

The average time for completing RDQA forms is estimated at half a day per centre assessed (for two indicators). Staff workload and RDQA planning must also consider travel time, as for any supervisory visits.

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