

# Data Quality Review (DQR) Data Verification and System Assessment Workshop

## Session 7

Data Verification at Health Facility  
Level – Recounting the Value of the  
Indicator from Source Documents  
– TB Cases Notified



World Health  
Organization



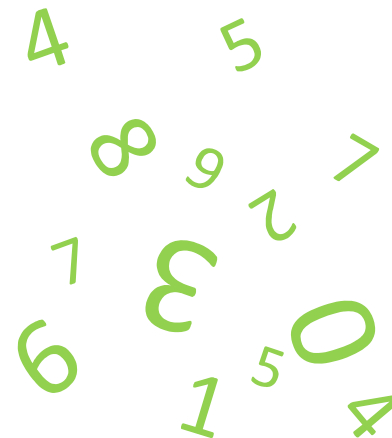
**USAID**  
FROM THE AMERICAN PEOPLE



MEASURE  
Evaluation



**The Global Fund**



# Learning Objective

To master the process of recounting the indicator at the health facility. Specifically, by the end of the session you should be able to;

- Know the definition of the indicator Number of TB Cases Notified, i.e. TB Cases Notified.
- Be familiar with data collection and reporting tools used to record service delivery and report for TB Cases Notified.
- Understand standard protocols for aggregating TB Cases Notified at health facilities.
- Understand how to re-count TB Cases Notified on the TB Patient Card or the TB Register for the selected reporting period.
- Understand and avoid common pitfalls in compilation of data for TB Cases Notified.

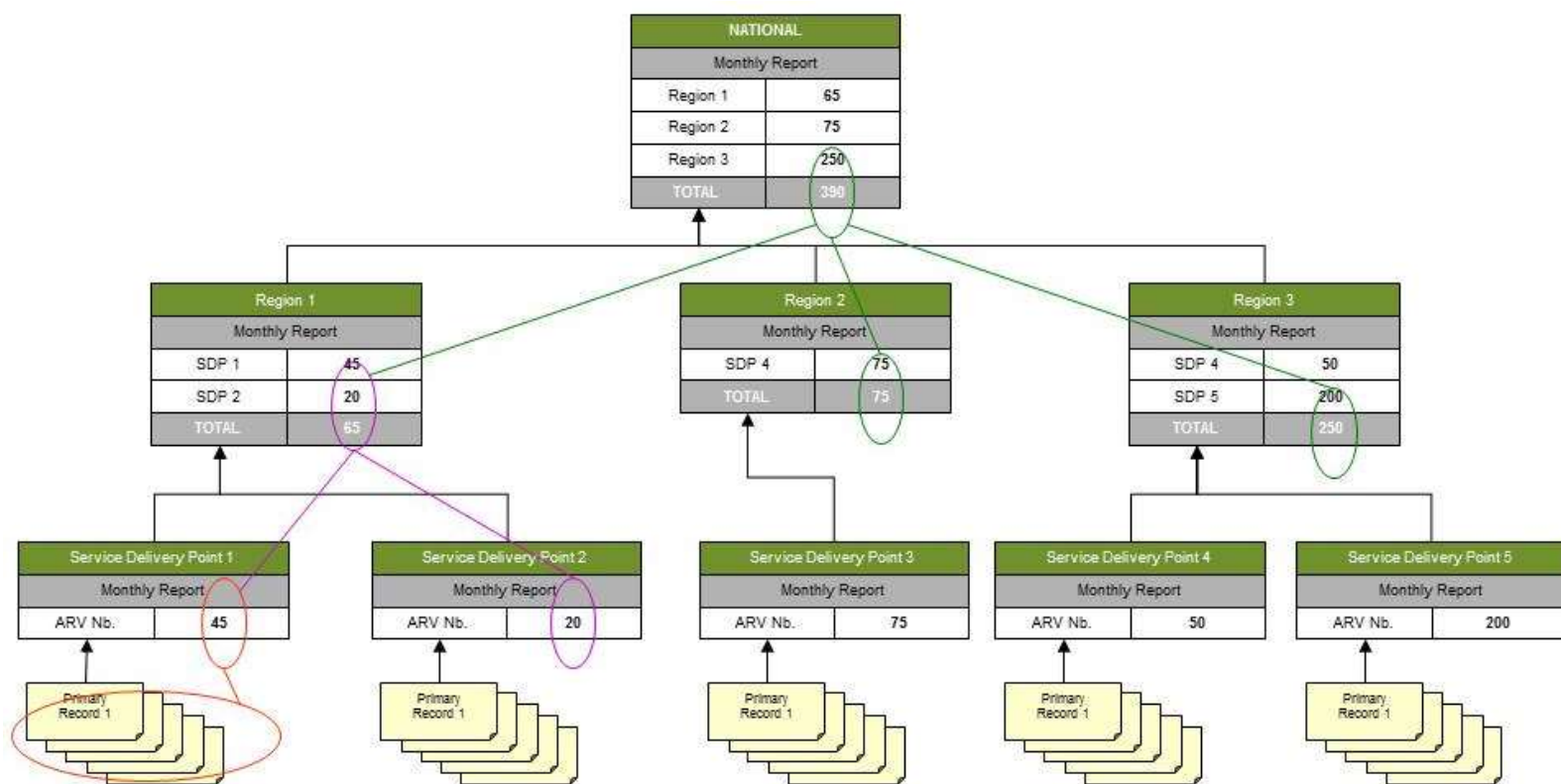
## SESSION 7

Recounting TB Cases  
Notified



# Data Verification Schema

## Verification of reporting



### SESSION 7

Recounting TB Cases  
Notified

Source documents: facility registers (ANC, ART, OPD, TB) & immunization tally sheet



# Data Verification

## SESSION 7

Recounting TB Cases  
Notified

### Data verification module

- Recommended maximum 5 indicators for review
  - ANCI, Penta 3/DTP3, HIV Treatment, TB cases notified, malaria cases (confirmed) (adapt to country implementation)
  - Include country indicator definitions
- Select a time period for the verification
  - e.g. : End of March 2019 (end of 1<sup>st</sup> trimester)
- For each indicator:
  - Documentation review
  - Recount the number of events
  - Reported number of events
  - Reasons for discrepancies



# Source Documents and Reports

## SOURCE DOCUMENTS AND REPORTS—TB Cases Notified

- TB Patient Cards for all patients starting on treatment at the facility or the TB Register (the TB register may be found at the TB Basic Management Unit\*)
- HMIS or Program-specific facility quarterly report for the quarter under review

\*A basic management unit (BMU) is defined in terms of management, supervision and monitoring responsibility. A BMU for the TB programme may have several treatment facilities, one or more laboratories and one or more hospitals. The defining aspect is the presence of a manager or coordinator who oversees TB control activities for the unit and who maintains a master register of all TB patients being treated.

NAME	ADDRESS	SEX	AGE	DATE	Notes
56. Marlene Mwangi	3. Kariakoo Rd	F	35	1/12/12	...
57. Marlene Mwangi	3. Kariakoo Rd	F	35	1/12/12	...
58. Susan Mwangi	6. Kariakoo Rd	F	35	1/12/12	...
59. Martha Mwangi	1. Kariakoo Rd	F	35	1/12/12	...
60. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
61. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
62. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
63. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
64. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
65. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
66. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
67. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
68. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...
69. Martha Mwangi	36. Kariakoo Rd	F	35	1/12/12	...

## SESSION 7

### Recounting TB Cases Notified

- 2<sup>nd</sup> side
  - Continuation phase Tx
  - HIV care
  - Tx outcomes

# TB Register

## SESSION 7

Recounting TB Cases  
Notified

Tuberculosis Programme

Basic Management Unit TB Register – Left side of the register book

Page 1

Form 5

Date of registration	BMU TB No.	Name	Sex M/F	Age	Address	Health facility <sup>1</sup>	Date treatment started	Treatment category <sup>2</sup>	Site P / EP	Type of patient <sup>3</sup>					
										N	R	F	D	T	O

Tuberculosis Programme

Basic Management Unit TB Register – Right side of the register book

Form 5 (continued)

Page 2

Results of sputum smear microscopy and other examination										Treatment outcome & date						TB/HIV activities		Remarks
Before treatment				2 or 3 months <sup>1</sup>		5 months		End of treatment		Date	Outcome <sup>5</sup>					ART Y/N Start date	CPT Y/N Start date	
Sputum smear microscopy result <sup>2</sup>	Date/Lab. No.	HIV result <sup>3</sup> Date	X-ray Result <sup>4</sup>	Sputum smear microscopy result <sup>2</sup>	Date/Lab. No.	Sputum smear microscopy result <sup>2</sup>	Date/Lab. No.	Sputum smear microscopy result <sup>2</sup>	Date/Lab. No.		Cure	Treatment Completed	Treatment Failure	Dead	Default			

- Page 1: Date of registration, ID number, name, sex, age, address, Tx start date, category, site, type
- Page 2: Diagnostic results, Tx outcome, TB/HIV, etc.





# Recounting

## TB cases notified

- Recorded cases from unit TB register

NATIONAL TUBERCULOSIS AND LEPROSY PROGRAMME (NTLP)																				
UNIT TB REGISTER																				
Unit TB No	Dist TB No	Name (in full), 1 Patient & Tel. No. 2 Contact Person & Tel No.	Sex M/F	Age	Address 1) District 2) Sub-County/Division 3) Parish 4) Village/Zone (L.C I) 5) Nearest health unit 6) Land Lord (for Urban Areas)			Place of work: health facility? Yes/No	Disease Class (a) P-Pos P-Neg EPTB NSD	Type of Patient (b) N.R.F.D. O	1. Date Treatment Started & 2. Regimen Cat 1 2RHZE/6E H Cat 2 SRHZE Cat 3 RHZ	Transfer In (c) From (1) Reason (2)	Results of Sputum Examination and Other Examinations and Date							
												PRE-Rx		Follow up			DST			
														AFB (d)	Other (e)	2(3) (f)	3	5 (g)	6 (8)	
		1)			1)	2)	3)				1	(1)								
		2)			4)	5)	6)				2	(2)								
					1)	2)	3)					(1)								
					4)	5)	6)					(2)								

- Go down the page of the register and count how many TB cases there are for the month/quarter of interest (all cases should have at least the unit TB number and/or district TB number).
- Count the TB cases transferred in and record in questionnaire.
- Subtract transferred in cases from the total TB cases and record in questionnaire

## SESSION 7

Recounting TB Cases Notified





# Recounting

- Record the recounted values for the quarter in the appropriate cells on the data collection form

REVIEW SOURCE DOCUMENT FOR TB CASES AND ANSWER THE FOLLOWING QUESTIONS				
DV_403	Please confirm the availability of the main source document used for reporting of notified cases of TB for the quarter (Month1 to Month3). If available and information on notified cases is recorded, please recount and record the number of notified cases of TB for the quarter (Month1 to Month3).	(A) SOURCE DOCUMENT AVAILABLE		(B) RECOUNT NUMBER OF NOTIFIED CASES OF TB IN SOURCE DOCUMENT
		YES, SOURCE DOCUMENT AVAILABLE WITH INFORMATION RECORDED FOR NOTIFIED CASES OF TB*	NO, SOURCE DOCUMENT NOT AVAILABLE OR INFORMATION ON NOTIFIED CASES OF TB NOT RECORDED	
01	Quarter (Month 1 to Month 3)	1 → B	2 DV_407	A= <input type="text"/>
*Even if information is only partially filled (for example for a few days in the month, you would answer YES)				
DV_404	From the main TB source document, count the total number of TB cases that were transferred in for the verification period (MONTH 1 to MONTH 3). Please record the total number for the quarter. IF THE TB REGISTER IS NOT AVAILABLE, RECORD "9997".	B = <input type="text"/>		
DV_405	CALCULATE C: TOTAL NUMBER OF TB CASES FROM THE TB SOURCE DOCUMENT MINUS THE TRANSFERRED-IN CASES (TRANSFERRED-IN CASES ARE NOT INCLUDED IN THE RECEIVING UNIT'S CASE REGISTRATIONS). IF THE TB REGISTER IS NOT AVAILABLE, ASSUME B = 0.	TB CASES THAT SHOULD BE REPORTED C = A - B = <input type="text"/>		



## SESSION 7

### Recounting TB Cases Notified

## Recounting

# TB cases – missing key data elements

- Record total number of cases with missing data for each of the six key variables from the unit TB register for period of interest

NATIONAL TUBERCULOSIS AND LEPROSY PROGRAMME (NTLP)																
UNIT TB REGISTER																
Unit TB No	Dist TB No	Name (in full), 1 Patient & Tel. No. 2. Contact Person & Tel No.	Sex M/F	Age	Address 1) District 2) Sub-County/Division 3) Parish 4) Village/Zone (L.C.I) 5) Nearest health unit 6) Land Lord (for Urban Areas)	Place of work: health facility? Yes/No	Disease Class (a) P-Pos P-Neg EPTB NSD	Type of Patient (b) N.R.F.D. O	1. Date Treatment Started & 2. Regimen Cat 1 2RHZE/6E H Cat 2 SRHZE Cat 3 RHZ	Transfer In (c) From (1) Reason (2)	Results of Sputum Examination and Other Examinations and Date					
										PRE-Rx		Followup			DST	
										AFB (d)	Other (e)	2(3) (f)	3	5 (g)		6 (8)
		1)			1)	2)	3)			1	(1)					
		2)			4)	5)	6)			2	(2)					
					1)	2)	3)				(1)					
					4)	5)	6)				(2)					

- The six key variables for assessment are: year of registration, sex, age, disease classification, type of patient and bacteriological results.
- For the verification period, for each of the six variables, go down the page of the register and count how many blank cells there and mark it down in the questionnaire.

## SESSION 7

Recounting TB Cases Notified

1 5 9 7 6 3 2 0 1 5 4

## Recounting

# TB cases – missing key data elements

- Record the total number of cases with at least one missing data for the six key variables from the verification period in the Unit TB register?

NATIONAL TUBERCULOSIS AND LEPROSY PROGRAMME (NTLP)																
UNIT TB REGISTER																
Unit TB No	Dist TB No	Name (in full), 1 Patient & Tel. No. 2. Contact Person & Tel No.	Sex M/F	Age	Address 1) District 2) Sub-County/Division 3) Parish 4) Village/Zone (L.C.I) 5) Nearest health unit 6) Land Lord (for Urban Areas)	Place of work: health facility? Yes/No	Disease Class (a) P-Pos P-Neg EPTB NSD	Type of Patient (b) N.R.F.D. O	1. Date Treatment Started & 2. Regimen Cat 1 2RHZE/6E H Cat 2 SRHZE Cat 3 RHZ	Transfer In (c) From (1) Reason (2)	Results of Sputum Examination and Other Examinations and Date					
			2	3				4	5	1	PRE-Rx		Follow up	DST		
											AFB (d)	Other (e)	2(3) (f)	3	5 (g)	6 (8)
					1) 2) 3)				1	(1)						
					4) 5) 6)				2	(2)						
					1) 2) 3)				1	(1)						
					4) 5) 6)				2	(2)						

- The six key variables for assessment are: year of registration, sex, age, disease classification, type of patient and bacteriological results.
- For the verification period, go across the page of the register and count how many cases have one or more of these six variables with blank cells, and mark it down in the questionnaire.

## SESSION 7

Recounting TB Cases Notified



# Recounting

- Record the number of cases with missing values in the appropriate cells on the data collection form

<b>DV_406</b>	<b>MISSING DATA: ASK TO SEE THE TB REGISTER</b> Count the number of cases in the quarter (MONTH 1 to MONTH 3) with missing information for each of the following columns in the unit TB register.	<b>NUMBER OF CASES (ROWS) WITH MISSING DATA</b> <i>If N/A, please use 9999</i>	
<b>01</b>	Year of registration	<input type="text"/>	
<b>02</b>	Sex	<input type="text"/>	
<b>03</b>	Age	<input type="text"/>	
<b>04</b>	Disease classification/Anatomical site of disease	<input type="text"/>	
<b>05</b>	Type of patient /History of previous TB treatment/Patient registration group	<input type="text"/>	
<b>06</b>	Bacteriological results	<input type="text"/>	
<b>07</b>	Number of cases missing data in at least 1 of the 6 columns listed above	<input type="text"/>	

## SESSION 7

Recounting TB Cases  
Notified

5  
9  
2  
0  
1  
5  
7  
4

# Recounting

## TB cases notified

### Unit TB monthly report

Name of BMU: _____ Facility: _____	Patients registered during <sup>a</sup> _____ quarter of year _____
Name of TB Coordinator: _____ Signature: _____	Date of completion of this form: _____

#### Block 1: All TB cases registered during the quarter<sup>b</sup>

	New	Relapse	Previously treated (excluding relapse)	Previous treatment history unknown	Total
Pulmonary, bacteriologically confirmed					
Pulmonary, clinically diagnosed					
Extrapulmonary, bacteriologically confirmed or clinically diagnosed					

#### Block 2: All new and relapse cases (bacteriologically confirmed or clinically diagnosed) registered during the quarter by age group and sex

	0-4	5-14	15-24	25-34	35-44	45-54	55-64	>65	Total
Male									
Female									

#### Block 3: Laboratory diagnostic activity<sup>c</sup>

Patients with presumptive TB undergoing bacteriological examination	Patients with presumptive TB with positive bacteriological examination result

#### Block 4: TB/HIV activities (all TB cases registered during the quarter)

Patients tested for HIV at the time of TB diagnosis or with known HIV status <sup>d</sup> at the time of TB diagnosis	HIV-positive TB patients	HIV-positive TB patients on ART	HIV-positive TB patients on CPT

<sup>a</sup> Registration period is based on date of registration of cases in the TB register, following the start of treatment. Q1: 1 January – 31 March; Q2: 1 April – 30 June; Q3: 1 July – 30 September; Q4: 1 October – 31 December.

<sup>b</sup> "Transferred in" cases are excluded.

## SESSION 7

### Recounting TB Cases Notified

- Sum the total of pulmonary (bacteriologically confirmed and clinically diagnosed) and extra pulmonary TB for the period of interest and enter in questionnaire



# Reported Values

- Record the reported values from quarterly facility report in the appropriate cells on the data collection form

REVIEW MONTHLY REPORT FOR TB CASES AND ANSWER THE FOLLOWING QUESTIONS									
DV_407	Please confirm the availability of the <b>monthly report</b> form in which <b>notified cases of TB</b> are recorded and sent to the district or next level administrative unit for Month1 to Month3. If available, please <b>record</b> the number of <b>notified cases of TB</b> entered in the <b>quarterly report form</b> for Month1 to Month3.	(A) QUARTERLY REPORT AVAILABLE			(B) RECORD NUMBER OF NOTIFIED CASES OF TB IN QUARTERLY REPORT				
		YES, MONTHLY REPORT AVAILABLE WITH INFORMATION RECORDED FOR NOTIFIED CASES OF TB	YES, MONTHLY REPORT AVAILABLE BUT INFORMATION ON NOTIFIED CASES OF TB NOT RECORDED	NO, MONTHLY REPORT NOT AVAILABLE					
01	Quarterly report (Month 1 to Month 3)	1 → B	2 DV_408	3 DV_408	D = <table border="1" style="display: inline-table;"><tr><td></td><td></td><td></td><td></td></tr></table>				

## SESSION 7

Recounting TB Cases Notified



# Potential Cross Checks

- Cross checks are verifications of service delivery across data sources which can help identify data quality problems.
- If time permits, the following cross checks can be conducted for TB.
  - Verify patients' diagnostic information between the TB register and the TB laboratory register.
  - Compare the number of patients treated in a given reporting period to the number of patients prescribed medication in the pharmacy log book.
  - Compare patients treated against consumption of drugs in the drugs stock management logs.

## SESSION 7

Recounting TB Cases  
Notified





Keep in  
mind...

- Pay attention to the indicator definition to know what should be counted and what should not. Note that the indicator includes all forms of TB (pulmonary, extra pulmonary, etc.)
- Pay attention that the dates on the source documents correspond to the reporting period selected for review.
- Notice that the TB section of the DV/SA contains supplemental content related to the extent of missing data for priority data elements from the TB register.
- TB is often reported quarterly from health facilities.

## SESSION 7

Recounting TB Cases  
Notified



## Questions

- What is the source document for the indicator TB cases notified?
- What is the TB Basic Management Unit?
- When assessing the extent of TB missing data (data element completeness) what value should be entered for the data element “year”?
- What is the periodicity of reporting for TB data?

## SESSION 7

Recounting TB Cases  
Notified



## Practice

### Practice with example TB Patient Card and/or TB Registers

- Work in small groups to conduct the recount (2-4 participants, depending on the number of available registers).
- The facilitator will provide example source documents for you to work with.
- Your instructor will give you the reporting period (quarter) to be verified. With this you can begin counting the number of TB Cases Notified.
- You have 60 mins.

## SESSION 7

Recounting TB Cases  
Notified

