Data Quality Assessment for NTDs

TRAINING

FACILITATOR MANUAL

ACKNOWLEDGEMENTS

The preparation of this guide and the accompanying resources was informed by the data quality assessment (DQA) tools developed for programmes on HIV, tuberculosis and malaria as well as immunization by partners including MEASURE Evaluation; the Global Fund to Fight AIDS, Tuberculosis and Malaria; the President's Emergency Plan for AIDS Relief; the United States Agency for International Development; the World Health Organization (WHO); the Joint United Nations Programme on HIV/AIDS; the Global Alliance for Vaccines and Immunization; and WHO's Immunization Information Systems and Data Assessment.

WHO is grateful to all those who helped to adapt the material for the context of neglected tropical diseases (NTDs). Particular thanks are due to the following individuals and organizations for their valuable contributions to the methodology and field testing:

Kathryn Zoerhoff (RTI International, USAID ENVISION Project, Washington DC, USA); Timothy Wakabi (Consultant, Kampala, Uganda); Pamela Sabina Mbabazi (WHO, Geneva, Switzerland); Harriet Lwanga (formerly with RTI International, USAID ENVISION Project, Kampala, Uganda); Kalpana Bhandari (RTI International, USAID ENVISION Project, Washington DC, USA); Hannah Frawley (RTI International, USAID ENVISION Project, Washington DC, USA); Kaleigh Robinson (RTI International, USAID ENVISION Project, Washington DC, USA); the Ministries of Health in Benin, Cameroon, Cote d'Ivoire, Ethiopia, Guinea-Bissau, Haiti, Indonesia, Mozambique, Nepal, Nigeria, Philippines, Senegal, South Sudan, Tanzania, and Uganda; USAID ENVISION Project field teams in Benin (RTI International), Cameroon (Helen Keller International, Sightsavers, Perspective, IEF), Ethiopia (RTI International), Haiti (IMA World Health), Indonesia (RTI International), Mozambique (RTI International), Nepal (RTI International), Nigeria (RTI International and The Carter Center), Philippines (RTI International), Senegal (RTI International), Tanzania (IMA World Health), Uganda (RTI International); Sightsavers field teams in Cote d'Ivoire, Guinea-Bissau, and South Sudan; and WHO Regional Office for Africa, Brazzaville, Republic of Congo.

Gratitude is also extended to Iota Ink for their contributions to update the DQA tool. WHO gratefully acknowledges USAID for funding the development of these materials for NTDs and field-testing in many countries through the ENVISION project.

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LIST OF ACRONYMS

CDD	Community Drug Distributor
DQA	Data Quality Assessment
GAVI	Global Alliance for Vaccines and Immunization
LF	Lymphatic Filariasis
M&E	Monitoring and Evaluation
MDA	Mass Drug Administration
MoH	Ministry of Health
NTDs	Neglected Tropical Diseases
PC	Preventive Chemotherapy
PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
RTI	RTI International
SDP	Service Delivery Point
SSU	Secondary Sampling Unit
STH	Soil-transmitted Helminthiases
TSU	Tertiary Sampling Unit
USAID	United States Agency for International Development
VF	Verification Factor
WHO	World Health Organization

GLOSSARY

The following terms are used throughout the guidelines and the DQA tool.

Assessment Period: This refers to the time period when the Preventive Chemotherapy (PC) round under assessment was conducted. The Assessment Period should ideally be determined by the Ministry of Health which commissions the DQA.

National: This refers to the highest administrative level, where treatment data and drug stocks are aggregated for the entire country. At this level, the disease program managers, National Secretariat, and other partners review the data and make decisions.

Service Delivery Point: Service delivery for NTDs may include prevention of NTDs through PC (SAFE for trachoma), management of morbidity and disability prevention, and/or treatment of cases, among other possible interventions. The Service Delivery Point (SDP) refers to the lowest administrative level, school or fixed point where an intervention benefiting a population (i.e., service delivery) occurs. For PC diseases, these are typically communities, villages, or schools where PC has taken place and treatment data are compiled from the treatment registers or tally sheets by the Community Drug Distributors (CDD), teachers or health workers.

Intermediate data aggregation level: This refers to administrative levels, lower than the national level but higher than the drug distribution level, where PC data aggregation takes place. The number of intermediate aggregation levels may vary between countries. The DQA tool provides for up to 4 intermediate levels with intermediate level 1 representing the next level after community, followed by level 2, etc. For example, data may be sent from villages (SDP) to a health facility where the

data are first aggregated (Intermediate Aggregation Level [IAL 1)], then to a district (IAL 2), followed by a region (IAL 3), and then data are sent to the national level.

Sampling Unit: Administrative geographic areas in which Service Delivery Points are located. Data are tabulated and aggregated in these areas. During the DQA, some of these areas are selected as part of a sample where the assessment will take place. Depending on the number of administrative levels in a country, these may be divided into primary sampling units (PSU), secondary sampling units (SSU), and tertiary sampling units (TSU).

Source documents: Data collection tool(s) where service delivery is first recorded. For PC NTDs, these may include treatment registers, PC tally sheets, inventory records at the distribution level, etc. For other NTDs, these may include patient records, etc.

Documentation/Report Availability: Percentage of source documents/reports that can be retrieved.

Documentation/Report Timeliness: Percentage of source documents/reports that were compiled/submitted by the due date.

Documentation/Report Completeness: Percentage of source documents/reports that contain all required data for indicators.

Verification Factor: Ratio of recounted value of the indicator to the reported value. Measures the accuracy of reported data.

OBJECTIVE OF DATA QUALITY ASSESSMENTS

The quality of preventive chemotherapy (PC) data for neglected tropical diseases (NTDs) received by national programmes is often incomplete, not timely, and of questionable accuracy. As the World Health Assembly and NTD Roadmap[1] elimination and control goals are fast approaching, it is necessary to ensure that national NTD programmes have high quality data that are used to effectively make decisions. For example, PC data should be used to:

- Identify and prioritize low performing areas and develop strategies to improve coverage
- Determine when it is appropriate to conduct an impact assessment such as a Transmission Assessment Survey or a Trachoma Impact Survey
- Account for effective use of resources, such as drugs, funding, human resources, etc.

A data quality assessment (DQA) is a resource available to national programmes and their partners to assess the quality of reported PC data and the underlying reporting system which generates that data, and facilitate evidence-based actions to improve the quality where necessary.

[1] World Health Organization 2012, http://www.who.int/neglected_diseases/NTD_RoadMap_2012_Fullversion.pdf

DATA QUALITY ASSESSMENT TRAINING OVERVIEW

This Data Quality Assessment Training was developed to complement the DQA Manual and Tool. It has been designed to facilitate participants to:

- acquire DQA concepts and skills through explanations and demonstrations during the DQA presentation slides; and
- practice and become proficient in DQA skills through exercises and practice scenarios using the participant workbook.

Training Goal
The goal of the training is to prepare participants to conduct a Data Quality Assessment. The training curriculum outlined here should take place over 1-2 days, in a classroom-style setting. Ideally this would be followed by a 1-day field-practice session, where the DQA team carries out the components of the DQA in a village and a health facility, followed by a debrief where the DQA team members discuss any alteration to the questions and standardized interpretation of responses.

Please note that the learning from the training will be most effective if immediately followed by field implementation of a DQA.

Objectives of individual training modules are listed below by module.

Training participants
The DQA Training has been developed to train national-level NTD program staff. These national program staff may later facilitate DQA trainings at the district level.

Training Materials
The following materials are necessary to conduct the DQA Training:

Material	Facilitator needs	Participant needs
DQA Manual	1 print copy	1 print copy for *each* participant
DQA Tool (Excel format)	electronic copy	All participants should download the Excel file to their computers before the training
DQA Tool User Manual (forthcoming)	1 print copy	1 print copy for *each* participant
DQA Participant Workbook	-- (exercises included in facilitator manual)	1 print copy for *each* participant
DQA Training Presentation*	electronic copy only, or print copy optional	1 print copy for *each* participant (optional)
DQA Facilitator's Manual (this manual)	1 print copy	--
Pre-tests	--	1 print copy for *each* participant
Post-tests	--	1 print copy for *each* participant
An additional copy of Facilitator Manual page 16 for the site selection exercise	1 print copy, cut along dotted lines	--
Results Verification Form	--	5 print copies for *each* participant
Evaluation of Training	--	1 print copy for *each* participant

** Note that the Training Presentation is animated to explain DQA concepts. It is recommended that facilitators review slides in full screen with animations before conducting trainings as preparation.*

Exercises and Scenarios
In most of the training modules, exercises have been planned to allow participants to practice concepts that have been introduced during the DQA Training Presentation. Each scenario and individual exercise is presented on an individual slide of the presentation and corresponds with a scenario or exercise in the DQA Exercise Workbook. The exercise slides will serve as markers to stop the presentation and work through an individual exercise. All exercises are included below in this Facilitator's Manual with notes for the facilitator. After completing an exercise, do not continue on to the next one unless indicated by the presentation, as many of the exercises are meant to have the participants practice individual DQA skills step-by-step.

For each exercise, a scenario is provided to have the participants imagine they are part of a team conducting a DQA. Have the participants read the scenario and instructions and ask any questions they may have before beginning.

Facilitator's notes are given in the dark boxes for individual exercises below. All answers are provided in this facilitator's manual in yellow highlighted text.

Training Structure and Suggested Agenda
Facilitating this curriculum will take about a full day. Below is a suggested agenda for facilitating the DQA Training at the central level. During the training, modules may take less or more time than listed in the following chart. It is important to plan for plenty of time to complete each exercise.

Module	Suggested time	Applicable exercises or tests and approx. time for each
Welcome and Pre-test	9:00 – 9:30	Pre-test (20 minutes)
Introduction	9:30 – 10:00	--
Preparation	10:00 – 11:15	Sampling Plan Exercise (30 minutes)
Break	11:15 – 11:30	--
Implementation	11:30 – 13:00	Recounting Exercise (45 minutes)
Lunch	13:00 – 14:00	--
Implementation (continued)	14:00 – 15:15	Interviewing Exercise (45 minutes) Tool Completion Exercise (30 minutes)
Break	15:15 – 15:30	--
Results	15:30 – 16:30	Interpreting Results Exercise (20 minutes) Action Plan Exercise (20 minutes)
Closing, Post-test and Evaluation of Training	16:30 – 17:00	Post-Test (20 minutes) Evaluation of Training (10 minutes)

PRE-TEST

Total estimated time: 20 minutes

All training participants will complete a pre-test at the beginning of the DQA training, and a post-test at the closure of the training.

Pass out one pre-test to each participant. Explain to participants that the purpose of the pre-post tests is to assess the knowledge of the training participants as well as the effectiveness of the training. Explain that it is likely that participants may not know many answers to the questions during the pre-test, but that they should complete all questions to the best of their knowledge. Participants should write their names on the top of the tests in order to compare the pre-tests to the post-tests. If they prefer not to write their names, they may write a unique identifier, as long as they use the same one on both the pre- and post-tests. Tell participants that they will have 20 minutes to complete the pre-test. Participants may ask facilitators questions during the tests. While facilitators may answer clarifying questions, they should not provide answers to any pre-post test questions. Remind participants that all scores will be kept confidential.

After participants have been working on their tests for 15 minutes, tell them that they have 5 minutes left. Collect the tests after 20 minutes. Facilitators will analyze the pre-tests along with the post-tests after the training.

INTRODUCTION MODULE

Total estimated module time: 30 minutes

Overview:
The Background and Introduction module consists of 29 slides that explain the need for the DQA Guidelines, how they were developed, its objectives, and an overview of the key steps. The final slides briefly show participants key elements of the tool and guidelines appendices.

Exercises:
(none)

Learner outcomes:
At the end of this module, training participants will be able to

- State the objectives of a data quality assessment
- Describe the flow of data for Preventive Chemotherapy
- Explain what the DQA Tool will assess and give an overview of how
- Explain the ethical standards that must be maintained during a DQA

Notes and tips:
Slides 21-26 show parts of the tool. When explaining these slides it may be helpful to first note that later in the training you will be completing exercises with the tool in more depth and that in the current module you will only be giving an overview of each. Allow participants to take a couple of minutes to look through the appendices and tool on their own during this module before continuing.

PREPARATION MODULE

Total estimated module time: 1 hour 15 minutes

Overview: The Preparation module consists of 50 slides that explain the key steps to prepare for a DQA, and how to select the sites that will be assessed during the DQA. Slide 28 presents a fictitious scenario asking participants to imagine they are on a team conducting a DQA. This is the beginning of a series of scenarios which will allow participants to practice each key step of conducting a DQA throughout the course of the training in their workbooks. Slide 29 instructs students to open their workbook to conduct the first of these scenario activities, the Sampling Plan Exercise (see exercise and facilitator's note below).

Exercises:
Sampling Plan Exercise (30 minutes), explained below

Learner outcomes:
At the end of this module, training participants will be able to

- Describe where to conduct the DQA
- State the importance of obtaining authorization from relevant authorities
- Decide when to conduct the DQA
- Determine DQA team members
- Select indicators to be assessed in the DQA
- Determine which materials should be organized and finalize plans for field implementation

Notes and tips:
Slides 10-16 contain many animations in order to represent many reporting levels and units. Slides 17 and 34 have been designed for the facilitator to test participants' understanding of site and indicator selection. On both of these interactive slides it may be most useful for the facilitator to animate each slide line by line to give participants a chance to test their understanding by thinking through and calling out each answer.

Facilitator's note: When you reach slide 28 of the DQA Training Presentation, instruct students to open their workbooks to the first page, which provides the scenario below this box. Ask them to read through the scenario on their own. You may then want to ask participants to explain the scenario in their own words, highlighting key points they will need to use in developing their sampling plan.

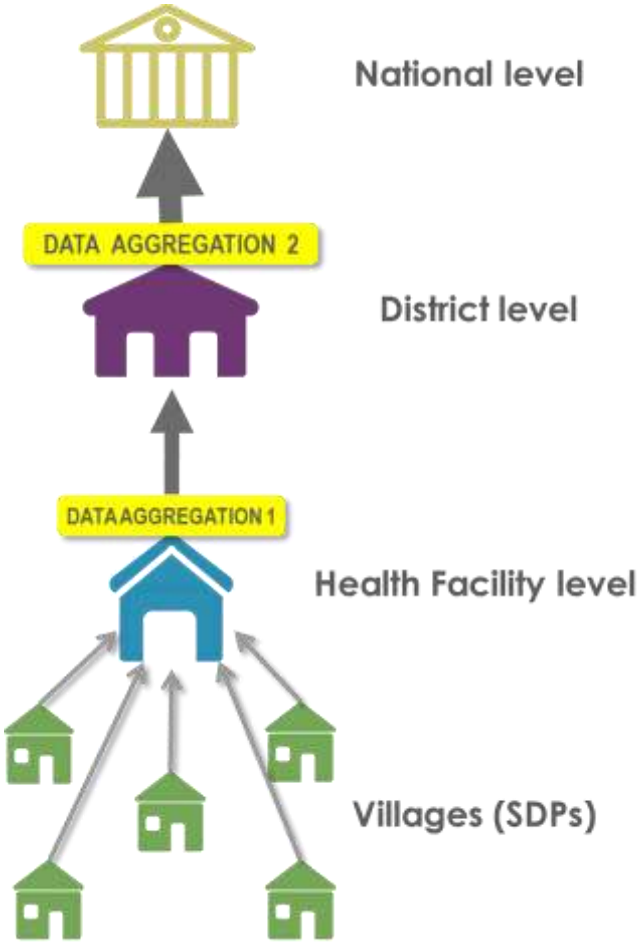
Once you have very briefly discussed the scenario, move on to the next slide and the corresponding Sampling Plan Exercise below.

Scenario: You are part of the team that has been asked to conduct a DQA in your country. Relevant information on your country's NTD program is provided below.

Country's NTD Program includes the following levels:

- National
- District
- Health Facility
- Village (villages are as the Service Delivery Points)

Data flow from Villages (Service Delivery Points) to Health Facilities, which serve as Intermediate Aggregation Level 1; to Districts, which serve as Intermediate Aggregation Level 2; to the National Level. The data flow in your country is depicted below.



The table below provides an example exhaustive list of every District, Health Facility and Village in your country.

List of all levels and health service delivery points in your country

Districts (Intermediate Aggregation Level 2)	Health Facilities (Intermediate Aggregation Level 1)	Villages (Service Delivery Point)
District 1	Health Facility 1	Village 1
		Village 2
		Village 3
		Village 4
	Health Facility 2	Village 5
		Village 6
		Village 7
		Village 8
	Health Facility 3	Village 9
		Village 10
		Village 11
		Village 12
	Health Facility 4	Village 13
		Village 14
		Village 15
		Village 16
District 2	Health Facility 5	Village 17
		Village 18
		Village 19
		Village 20
	Health Facility 6	Village 21
		Village 22
		Village 23
		Village 24
	Health Facility 7	Village 25
		Village 26
		Village 27
		Village 28
	Health Facility 8	Village 29
		Village 30
		Village 31
		Village 32
District 3	Health Facility 9	Village 33
		Village 34
		Village 35
		Village 36
	Health Facility 10	Village 37
		Village 38
		Village 39
		Village 40
	Health Facility 11	Village 41
		Village 42
		Village 43
		Village 44
	Health Facility 12	Village 45
		Village 46
		Village 47
		Village 48

Sampling Plan Exercise

Facilitator's note: You may want to put slide 40 on the projector as a reference. All answers are highlighted below in yellow in this Facilitator's Manual.

Identifying sampling units

Scenario: Your team has decided that 12 SDP units will be sufficient for its DQA.

Instructions: Based on the DQA Guidelines methodology for site selection, complete the chart below to indicate which level in your country will correspond to which type of sampling unit for your DQA and how many units will be selected from each level:

	District level	Health Facility level	Village level
Type of sampling unit Choose from • Primary (PSU) • Secondary (SSU) • Tertiary (TSU) • Service Delivery Point (SDP)	PSU	SSU	SDP
Number of units selected from this level	2	2x2=4	4x3=12

Facilitator's note: Walk through slides 49 and 50 with participants before having them work through the sampling exercise below. Ask participants not to move on to the next page on their own. After most participants have finished selecting their PSUs on this page, ask someone to explain how he or she completed the steps on this page to select his/her PSUs.

Selecting Primary Sampling Units (PSUs)

Based on the type and number of each sampling unit you identified above, work with your team to select your PSUs. Summarized steps on selecting PSUs are provided in the worksheet below. (The complete steps may be found in the DQA Guidelines). You should also consult the example on slides 49 and 50 of the Training Powerpoint, as noted in the steps below.

1. Preparation of sampling frame: Prepare a list of all the primary sampling units where the assessment is taking place. In this case, the assessment will cover the entire country. Obtain the target population for each sampling unit. Target populations for all Districts are given below in the table below. Select sampling units proportionate to the size of the clusters (see example on slides 49 and 50).

2. Compute cumulative population for the sampling frame: Compute the cumulative target population by adding up populations for the units as shown on slides 49 and 50.

Target populations for each District

Districts (Intermediate Aggregation Level 2)	Target population	Cumulative population	Sampled units
District 1	6,000	6,000	3,674
District 2	7,000	13,000	11,674
District 3	3,000	16,000	
TOTAL	**16,000**		

3. Compute a sampling interval: The sampling interval shall be obtained by dividing the total target population by the number of units to be selected.

   Sampling interval = total population / number of units to be selected = 16,000 / 2 units = 8,000

4. Select the units for assessment:
   A. Select a random start. The random start should be any number between one and the sampling interval inclusive. For example, if the sampling interval is 67, then the random start can take any number from 01 to 67. The random start should be selected using random number tables or a similar random method. ***Assume that your team used a random number table and selected 3674 as the random start.*** Select the sampling unit whose cumulative population coincides with the random start as your first unit.

   B. Proceed to select the required number of units using the formula: random start + sampling interval = second unit; random start + 2 sampling intervals = third unit, etc.

   1st unit = random start = 3674

   2nd unit = random start + sampling interval = 3674 + 8,000 = 11,674

Which Districts will your team select? ___Districts 1 and 2

Facilitator's note: Just as the facilitator's note above, ask participants not to move ahead to the next part on their own. After most participants have finished selecting their SSUs on this page, ask someone to explain how he or she completed the steps on this page to select his/her SSUs.

Selecting Secondary Sampling Units (SSUs)

Now work with your team to select your SSUs by repeating the steps above at the SSU level. Summarized steps are provided in the worksheet below. (The complete steps may be found in the DQA Guidelines). You should also consult slides 49 and 50, as noted in the steps below.

5. Preparation of sampling frame: Prepare a list of all the secondary sampling units where the assessment is taking place. Obtain the target population for each sampling unit. Target populations for all Health Facilities are given in the table below. Select sampling units proportionate to the size of the clusters (see example on slides 49 and 50).

6. Compute cumulative population for the sampling frame: Compute the cumulative target population by adding up populations for the units as shown in slides 49 and 50.

Target populations for each Health Facility in District 1

DISTRICT 1 Health Facilities (Intermediate Aggregation Level 1)	Target population	Cumulative population	Sampled units
Health Facility 1	3000	3000	1784
Health Facility 2	500	3500	
Health Facility 3	1500	5000	4784
Health Facility 4	1000	6000	
TOTAL	**6000**		

Target populations for each Health Facility in District 2

DISTRICT 2 Health Facilities (Intermediate Aggregation Level 1)	Target population	Cumulative population	Sampled units
Health Facility 5	1000	1000	
Health Facility 6	3000	4000	3167
Health Facility 7	2500	6500	
Health Facility 8	500	7000	6667
TOTAL	**7000**		

7. Compute a sampling interval: The sampling interval for each District shall be obtained by dividing the total target population by the number of units to be selected.

We need 4 SSUs total, so 2 units from District 1 and 2 units from District 2
Sampling interval for District 1 = total District 1 population / number of units to be selected = 6000 / 2 units = 3000
Sampling interval = total District 2 population / number of units to be selected = 7000 / 2 units = 3500

8. Select the units for assessment:
   A. Select a random start. The random start should be any number between one and the sampling interval inclusive. For example, if the sampling interval is 67, then the random start can take any number from 01 to 67. The random start should be selected using random number tables or a similar random method. ***Assume that your team used a random number table and selected the following:**
      - **1784 as the random start for District 1.**
      - **3167 as the random start for District 2.***

      Select the sampling unit whose cumulative population coincides with the random start as your first unit.

   B. Proceed to select the required number of units using the formula: random start + sampling interval = second unit; random start + 2 sampling intervals = third unit, etc.

District 1:	District 2:
1st unit = random start = 1784 2nd unit = random start + sampling interval = 1784 + 3000 = 4784	1st unit = random start = 3167 2nd unit = random start + sampling interval = 3167 + 3500 = 6667

Which Health Facilities will your team select? Health Facilities 1, 3, 6 and 8

Selecting Service Delivery Points (SDPs)

Now work with your team to select your SDPs. Three service delivery points should be randomly selected from each of selected clusters at the lowest disaggregation level. Simple random sampling should be used to select the SDPs. In the case of simple random sampling, all the SDPs have an equal chance of being selected.

Selecting service delivery sites will be discussed together with the facilitator and participants

Which Villages will your team select? (answers will depend on which villages are selected. See note below

Facilitator's note:

Ask participants: If simple random sampling means that all SDPs, will have an equal chance of being selected, how do you think we might select which villages to assess?
Answers: *Answers may vary. Lead participants to choose to pick villages out of a hat.*

Ask participants: Which villages will we want to pick out of the hat?
Answer: *Villages 1-4; 9-12; 21-24 and 29-32 because they are from the selected Districts (1 and 2) and Health Facility Level (Health Facilities 1, 3, 6 and 8).*

Use the village numbers below to call up participants to blindly select from a hat which villages will be assessed.

Village 1	Village 21
Village 2	Village 22
Village 3	Village 23
Village 4	Village 24
Village 9	Village 29
Village 10	Village 30
Village 11	Village 31
Village 12	Village 32

IMPLEMENTATION MODULE

Total estimated module time: 2 hours 45 minutes

Overview: The Implementation Module (slides 70-90) is crucial to the DQA Training. After you explain the slides to participants, the rest of the module will consist of participants completing three exercises, which will allow them to practice recounting reported results, interviewing techniques, and completing the tool.

Exercises:
Recounting Exercise (45 minutes)
Interviewing Exercise (45 minutes)
Tool Completion Exercise (30 minutes)

Learner outcomes:
At the end of this module, training participants will be able to

- Describe the steps of implementing a DQA
- Explain how to conduct the historical review of data
- Explain how to measure the availability, completeness and timeliness of data
- Describe how to verify the data ("data verification") through recounting and reported data
- Conduct a systems assessment through a qualitative interview
- Determine the inputs to an Action Plan at each site

Notes and tips:
Allow plenty of time for the exercises in this module. (See individual exercises below for additional comments.)

Recounting Exercise

Additional materials needed. You should print out 5 copies of the Results Verification Form for *each* participant.

Facilitator's note:
Pass out the copies of Results Verification Form to each participant. Have participants work in pairs for this exercise. Note to participants that they can find the (fictitiously) completed reporting forms they will need to complete this exercise on the last pages of their workbook.

Scenario: Your country's NTD program has decided it would like to select the following indicators to be assessed in the DQA:

- Number of PZQ tablets used
- Number of persons treated with IVM+ALB
- Number of SAC treated for schisto
- Total population

In order to get the information necessary to begin completing the DQA tool, your team traveled to one of the Health Facilities selected for assessment and viewed the summary reporting forms for data compiled at the villages in its area during an MDA (Forms for data compilation at the peripheral level – Tabulated Summary, for PZQ and, separately, for IVM+ALB, found on the last few pages of this workbook). After carrying out the necessary DQA activities at that Health Facility, your team travels on to one of the villages selected for assessment, where it reviews a register of data collected during the same MDA (Form for data collection at the peripheral level – Register, for PZQ and, separately, for IVM+ALB, found on the last few pages of this workbook). Your team must now complete a recount of the recorded and reported data it has reviewed.

***Note**: The village being assessed is "Village X" in the forms in your workbook.*

Instructions: Review the data collection and compilation forms, which can be found at the end of your workbook.

Complete the steps below to fill in the Data Verification section of the tool, for each of the selected indicators:

1. Using the Results Verification Form (ask the facilitator for additional copies if necessary), recount the number *recorded* in the register for each indicator for the selected Village on the Form for data collection at the peripheral level – Register. (Be sure to also check that the numbers were summed correctly.)
   Recounted values:
   - Number of PZQ tablets used: 48.5
   - Number of persons treated with IVM+ALB: 15
   - Number of SAC treated for schisto: 7
   - Total population: 19

2. In the DQA tool, write the number *reported* to the Health Facility for each indicator on the Form for data compilation at the peripheral level – Tabulated Summary.

Reported values:
- Number of PZQ tablets used: 49
- Number of persons treated with IVM+ALB: 17
- Number of SAC treated for schisto: 7
- Total population: 30

3. Compare the recounted and reported values. What is the verification factor for each indicator?

Verification factor:
- Number of PZQ tablets used: 48.5/49=0.99
- Number of persons treated with IVM+ALB: 15/17=0.88
- Number of SAC treated for schisto: 7/7=1.0
- Total population: 19/30=0.63

Facilitator's notes for follow-up discussion:

- If someone has died or migrated, they should not be considered part of the total population. If they are pregnant, sick, or absent, they should still be counted as part of the total population.
- In order to be counted as treated with IVM+ALB, they should have been treated with both IVM and ALB. The individuals who are treated with just IVM or ALB should not be counted in this indicator.
- The definition of school-age children is not indicated on the Register, but it is defined on the tabulated summary to be 5-14 years of age. When counting the number of SAC treated for schisto, it is important to ensure you're only counting the individuals treated that fall within this age range.
- This tabulated summary form, as it's currently set up in this example, doesn't have enough precision to determine the number of individuals treated with IVM+ALB, disaggregated from those treated with just IVM or just ALB. This is an example of a form not having sufficient precision to determine the reported values and indicators adequately, and so reflects a systems issue.
- These examples demonstrate integrated reporting of IVM+ALB, but not integrated with PZQ or Zithromax.
- The verification factor (VF) is the recounted value / reported value. Verification factors can be presented as decimals or as a percentage. VF greater than 1.0 (100%) indicate underreporting, and less than 1.0 (100%) indicate overreporting. Ideally, VF values would be between 0.9-1.1 (90%-110%), although there is no universally accepted range. The decisions for appropriate thresholds can be made on a case-by-case basis, depending on the indicators selected.

Interviewing Exercise

Facilitator's note: Participants should continue to work in pairs for this exercise. While participants are interviewing each other remind them halfway through the exercise to switch roles so that both will have time to practice their interviewing techniques. Make sure that participants are completing this exercise on paper using printed copies of the DQA questions, rather than using the Excel tool.

Scenario: Still in the same village, your DQA team must now interview people who collect data there and then compile the data to be reported to the Health Facility in its area.

Instructions: Working with a partner, designate one person to be an interviewer and one person to be interviewed. Partners should switch roles half way through so both people get a chance to practice interviewing.

Using good interviewing techniques, the interviewer should ask the interviewee the guiding questions found in the DQA tool in order to get the information needed. Partners should first complete the questions on paper during the interview, checking the appropriate answers and writing key notes and comments in the appropriate boxes. After the questions are completed on paper, partners will then complete the tool in Excel format on a computer together in the following exercise.

<u>During the interview:</u>
The *interviewee* should

- ✓ Ask some questions about the purpose of the interview before it begins
- ✓ Ask what will happen if the data from his/her village does not exactly match what was reported to the next level
- ✓ Act as if he or she does not understand some of the questions to give the interviewer practice clearly repeating or eventually changing the wording of a question to make it more clear.
- ✓ Give very brief answers for a few questions to allow the interviewer to practice probing for clarification or elaboration

The *interviewer* should remember to

- ✓ Introduce himself/herself and the purpose of his/her visit
- ✓ Give the interviewee a chance to ask questions about the assessment before starting the interview questions
- ✓ Seek the interviewee's consent before beginning the interview
- ✓ Be sure to thank the interviewee and ask if he/she has any additional questions at the end of the interview

Tool Completion Exercise

Instructions: Now that you have gathered all the necessary information, work with your partner to complete a DQA Excel Tool sheet on a computer together for the village you visited.

Facilitator's note: After partners have completed their tools, ask a couple of pairs to show the graphs of the results for the specific village just completed. Since interviewees made up their answers graphs should differ by pair. Ask the pairs to explain what the graphs means in their own words in regards to the quality of data reported by that village.

RESULTS MODULE

Total estimated module time: 1 hour

Overview:
The final module consists of slides 91-106 and focuses on interpreting the results of the DQA, developing a DQA Action Plan, and compiling a DQA Report. Slides 95-98 present examples of results graphs produced by the DQA tool. You may want to ask participants to explain what the graphs mean in their own words. Participants will later get a chance to practice interpreting results and developing an Action Plan in the exercises that follow. The Wrap-up slide (slide 107) provides questions meant to generate additional thought and discussion related to the DQA now that all concepts have been covered.

Exercises:
Interpreting Results Exercise (20 minutes)
Action Plan Exercise (20 minutes)

Learner outcomes:
At the end of this module, training participants will be able to

- Interpret DQA results
- Explain how to develop a DQA Action plan
- Draft preliminary DQA findings and recommendations
- Describe the elements of a DQA report
- Explain how to compile final DQA documentation

Interpreting Results Exercise

Scenario: Imagine that your DQA team is now compiling results from all site visits at all levels. After your team added information from all site visits into the tool, your Dashboards displayed the figures below.

Instructions: Use the Dashboard figures provided below to answer the questions on the following page.

Figures:

Figure 1.

Systems Assessment Summary - SDP 1 (Village A)

Category	Response
M&E Structure, Functions and Capabilities	3.00
Indicator Definitions and Reporting Guidelines	2.00
Data Collection and Reporting Forms	1.50
Data Management Processes	2.50
Links with National Reporting System	2.00
Data Analysis, Interpretation and Use	2.00

Figure 2.

Part 4. Systems Assessment # Question	Village A
M&E Structure, Functions and Capabilities	
1 [CDDs/teachers] have clearly assigned responsibilities with regards to data recording and reporting.	Yes, Completely
2-a All the [CDDs/teachers] have received training on data management processes and tools.	Yes, Completely
2-b If [CDD/teacher] received training, he/she felt that the training provided was sufficient to effectively do his/her job.	Yes, Completely
3 Someone is assigned to review the aggregated numbers prior to submitting the report to the next level.	Yes, Completely
4 For the last PC round, someone reviewed the aggregated numbers prior to submitting the report to the next level.	Yes, Completely
Indicator Definitions and Reporting Guidelines	
5 [CDD/teacher]'s understanding of key indicator(s) is in line with national standard definition.	Partly
6 [CDD/teacher] received guidance from supervisor about to whom the reports are to be submitted.	Partly
7 [CDD/teacher] received guidance from supervisor about when the reports are to be submitted.	Partly
Data Collection and Reporting Forms	
8-a The MOH NTD programme has identified standard data collection and reporting forms/tools to be used.	No, Not at all
8-b If yes, the standard forms/tools consistently are used.	No, Not at all
8-c [CDD/Teacher] received instructions how to complete these tools.	Partly
9 The data collected on the source document have sufficient precision to measure the indicator(s) (i.e., relevant data are collected by sex, age, etc. if the indicator specifies desegregation by these characteristics).	Partly

Figure 3.

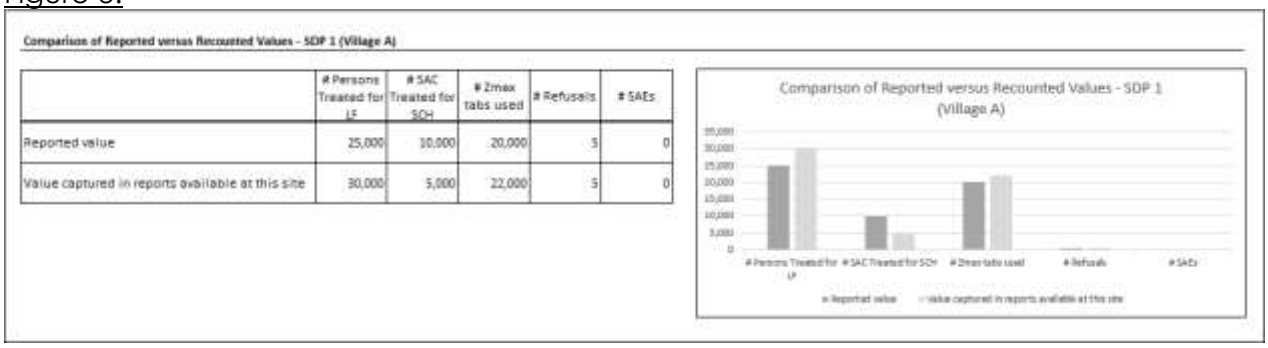
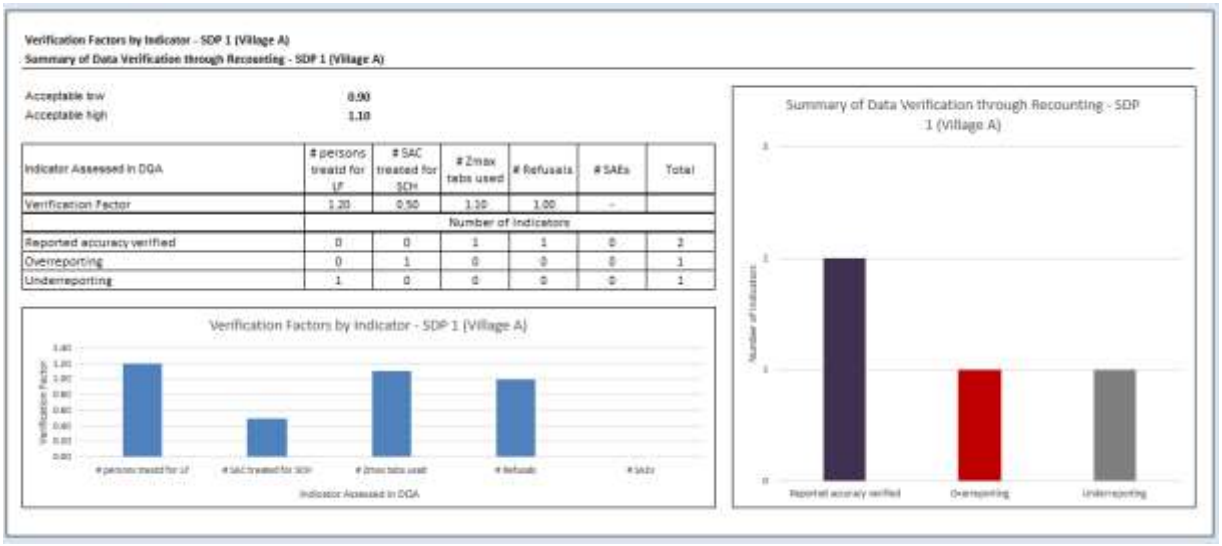


Figure 4.



Verification Factors by Indicator - SDP 1 (Village A)

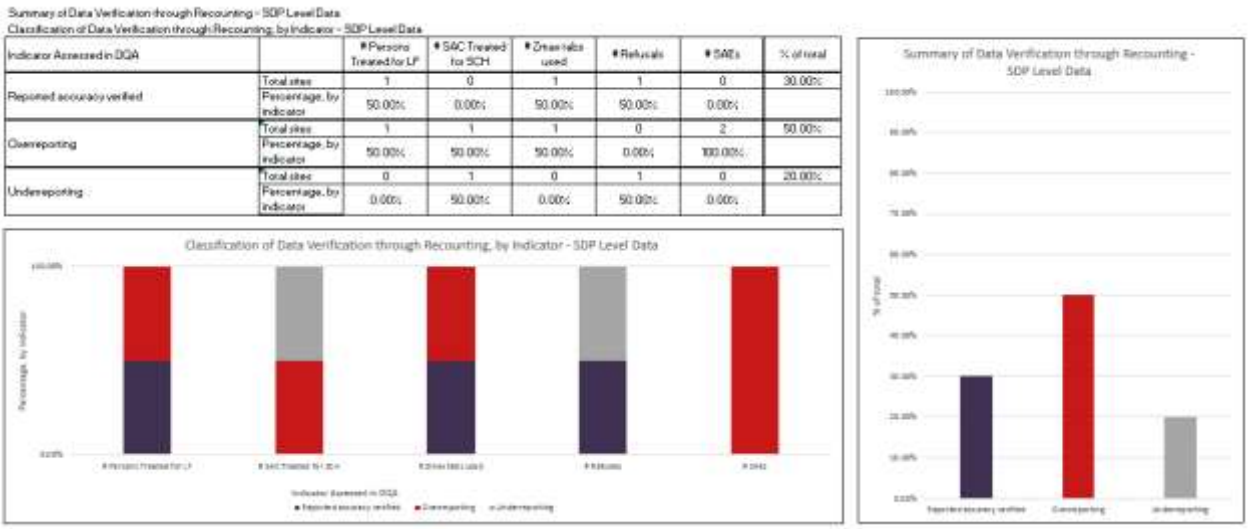
Summary of Data Verification through Recounting - SDP 1 (Village A)

Acceptable low 0.90

Acceptable high 1.10

Indicator Assessed in DQA	# persons treated for LF	# SAC treated for SCH	# Zmax tabs used	# Refusals	# SAEs	Total
Verification Factor	1.20	0.50	1.10	1.00	-	
	Number of Indicators					
Reported accuracy verified	0	0	1	1	0	2
Overreporting	0	1	0	0	0	1
Underreporting	1	0	0	0	0	1

Figure 5.



Summary of Data Verification through Recounting - SDP Level Data

Classification of Data Verification through Recounting, by Indicator - SDP Level Data

Indicator Assessed in DQA		# Persons Treated for LF	# SAC Treated for SCH	# Zmax tabs used	# Refusals	# SAEs	% of total
Reported accuracy verified	Total sites	1	0	1	1	0	30.00%
	Percentage, by indicator	50.00%	0.00%	50.00%	50.00%	0.00%	
Overreporting	Total sites	1	1	1	0	2	50.00%
	Percentage, by indicator	50.00%	50.00%	50.00%	0.00%	100.00%	
Underreporting	Total sites	0	1	0	1	0	20.00%
	Percentage, by indicator	0.00%	50.00%	0.00%	50.00%	0.00%	

Figure 6.

Availability, Completeness, and Timeliness of Reports, by Indicator – SDP 1 (Village A)

Availability, Completeness, and Timeliness of Reports, Overall – SDP 1 (Village A)

Indicator Assessed in DQA	# Persons Treated for LF	# SAC Treated for SCH	# Zmax tabs used	# Refusals	# SAEs	Overall
	Percentage of reports					
Available	66.7%	66.7%	66.7%	66.7%	66.7%	0.7
Complete	100.0%	100.0%	100.0%	100.0%	0.0%	0.6
Timely	100.0%	100.0%	100.0%	100.0%	50.0%	0.9

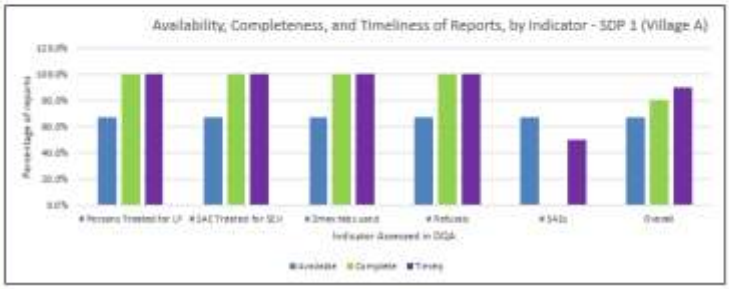
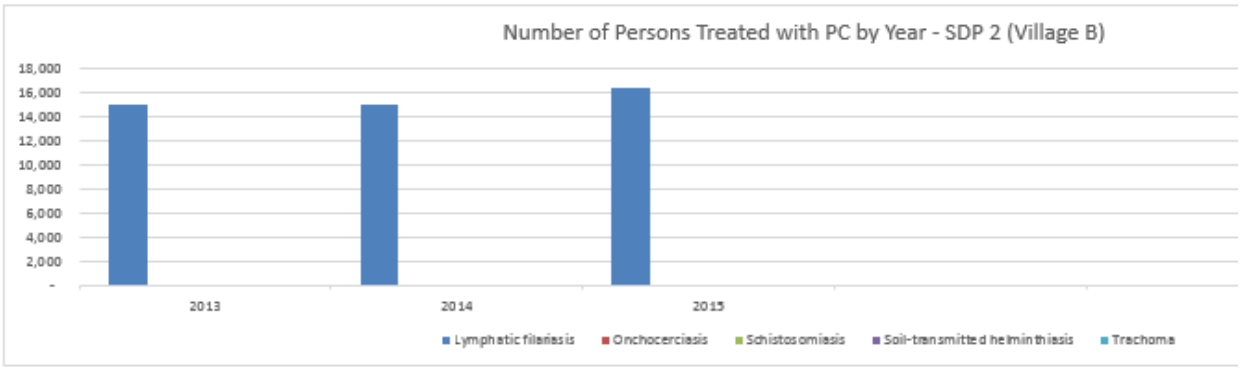


Figure 7.

Number of Persons Treated with PC by Year – SDP 2 (Village B)

	Select years to display on chart from drop downs					
	2013	2014	2015			
Lymphatic filariasis	15,003	15,003	16,444			
Onchocerciasis	-	-	-			
Schistosomiasis	-	-	-			
Soil-transmitted helminthiasis	-	-	-			
Trachoma	-	-	-			



Interpreting Results Questions

Facilitator's note: This exercise can be carried out individually, in pairs, or as a large group. The text provided in parentheses and italics below are the sections the questions refer to as a reference for you. They are not provided in the participants' workbook. Display the graphs on the previous page on the projector as a reference while discussing these exercises with participants.

Figures 1 and 2

1. According to the Systems Assessment Summary for Village A, which functional area is strongest?

M&E Structure, Functions and Capabilities – shown by value of 3.00, which is the best possible score. The Systems Assessment Summary can be seen by site on the Individual Site Dashboard, overall by level (e.g., across districts) in the Level Summary Dashboard, and overall across all the sites on the Overall Summary Dashboard.

2. Which functional area will need the most improvement in Village A? What recommendations do you have to address this area, and what specifically is driving those recommendations?

Data Collection and Reporting Forms. Recommendations could include the MOH identifying standard data collection and reporting forms, and ensuring that training emphasizes their consistent use including clear instructions. The specific responses that determine the overall score for the M&E Structure, Functions and Capabilities; Indicator Definitions and Reporting Guidelines; and Data Collection and Reporting Forms can be seen in Figure 2, which corresponds to the Systems Assessment Details tabs in the DQA tool. This information can be used to determine appropriate recommendations, in response to the specific questions which had unsatisfactory responses.

Figures 3-5

3. In Village A, which indicator(s) is overreported? Which indicator(s) is underreported? Which indicator(s) is satisfactorily reported, in comparison to what was recounted?

   Persons Treated for LF was underreported. # SAC treated for SCH was overrreported. # Zmax tabs used and # Refusals had accurate reporting, compared to what was able to be recounted. This is most easily seen in Figures 3 and 4. You can clearly see in the table in Figure 4 how each indicator was classified.

   The "Verification Factor" (shown in Figure 4) compares the recounted value to the reported value. The number that is recounted through the DQA is in the numerator, and the number that was reported by that site through routine reporting is in the denominator. A Verification Factor greater than 1.0 indicates *underreporting*, and a Verification Factor less than 1.0 indicates *overreporting*. Note that verification factors farthest away from 1.0, whether below or above 1.0 indicate poor reporting accuracy. For the purposes of NTDs, it has been determined that a verification factor between 0.90 and 1.10 is good enough to consider "accurate" for the purposes of reporting; in other words, 90% of the values were able to be 'verified' through recounting.

   Figure 3 shows the differences between what was recounted and what was reported, and that the difference between what was recounted and what was reported was not very substantial for the # Zmax tabs used; in other words, even though it wasn't exact, it was good enough to be considered accurate. This can also be seen in the table in Figure 4, with the VF equal to 1.10 for # Zmax tabs used, which is considered within the acceptable range.

4. Across the Service Delivery Points, is overreporting or underreporting a larger issue? Are there any particular indicators that have shown problems with data verification? In your own words, explain what the "Verification Factor" is, and how this relates to over/underreporting.

   The table in Figure 5 shows that across the Service Delivery Points, 50% of the sites have overreporting. This is compared to only 20% with underreporting; therefore, overreporting is a larger issue at the SDP level. You can also see this in the figure on the right, as the red bar (which represents overreporting) is larger than the gray bar (underreporting).

   The indicator "# SAEs" seems to have the most overreporting. However, it would be worth investigating the cause of this, as it's likely that there aren't very many SAEs that have

been reported or recounted, so it might not be only an arithmetic issue. Three of the indicators (# Persons Treated for LF, # SAC treated for SCH, and # Zmax tabs used) also had overreporting; it is also worth investigating the cause for overreporting for these indicators, as it is very possibly due to arithmetic challenges by the CDDs, and/or poor understanding of how to define and therefore calculate these indicators.

As mentioned above: The "Verification Factor" compares the recounted value to the reported value. The number that is recounted through the DQA is in the numerator, and the number that was reported by that site through routine reporting is in the denominator. A Verification Factor greater than 1.0 indicates *underreporting*, and a Verification Factor less than 1.0 indicates *overreporting*. Note that verification factors farthest away from 1.0, whether below or above 1.0 indicate poor reporting accuracy. For the purposes of NTDs, it has been determined that a verification factor between 0.90 and 1.10 is good enough to consider "accurate" for the purposes of reporting; in other words, 90% of the values were able to be 'verified' through recounting.

Figure 6

5. In Village A, are all of the reports available? If not, how does this affect the interpretation of your responses to questions 3 and 4?

Figure 6 shows that less than 70% of the reports were available across the indicators. This means that there may have been reports used at the time of routine data compilation and reporting, that weren't available during the DQA. Therefore, there may be some data that the DQA team weren't able to verify through recounting; in other words, the 'recounted' value that we calculated during the DQA might be an underestimate, simply because of poor data storage practices. This means that we need to be cautious in how we interpret the data verification results for Village A, and any other sites that don't have all of the reports available for recounting. We should also highlight the poor data storage practices in Village A when providing feedback to the Village A team and compiling DQA recommendations.

6. In Village A, is availability, completeness, and/or timeliness a problem? If so, is it specific to one indicator or across all indicators?

Figure 6 shows that availability is a problem in Village A. Ideally 100% of the reports would be available for each of the indicators, but less than 70% are. The DQA team should look into this: what is causing the reports not to be available? Is it that there are insufficient funds for physically collecting the reports, and so the data are instead reported via phone calls or SMS? Is it that the drug distributors keep their registers instead of storing them at the health facility, and so supervisors should ensure that safe data storage practices are implemented?

Figure 6 also shows that there is an issue with the completeness and timeliness of reports, but only for the indicator # SAEs. The DQA team should also look into this: why is it that only this indicator has problems with completeness and timeliness? Is this indicator captured in a different way from the others, that creates more challenges for drug distributors?

Figure 7

7. Review the LF treatment data over time for Village B. Are there any potential issues that stand out to you? How would you investigate those further?

When you review the data in the chart, it does not seem that there are any issues that stand out with the data; the data seem to increase slightly over time, which would be in line with population growth. However, if you examine the data in the table, you can see that the exact same value was reported in 2013 and 2014. This raises a red flag about double reporting across years. The DQA team should look into this in more detail; was this a data entry error? Are data being fabricated? Etc.

Action Plan Exercise

Instructions: Based on the DQA results shown above in the Dashboard figures, complete the template provided in to identify what your team may focus on when developing its DQA Action Plan.

Facilitator's note: Ask one or two participants to share what they recommended in their completed Action Plan template. See if other participants agree or have additional suggestions.

Facilitator's note: The forms on the following pages are to be used in the Recounting Exercise above.

Form for data compilation at the peripheral level – Tabulated summary

FORM FOR SUMMARIZING PREVENTIVE CHEMOTHERAPY TREATMENTS

Country: .....Your country..... Administrative level: .....Village X.... Round of treatment: ..1..... Total population: 30

PC implemented	Yes or No	Drug used	Number of tablets received	Number of tablets used	Number of tablets remaining
T2	Yes	PZQ	80	49	31

Total number of reports expected: .....1..... Total number of reports received: ....1.....
Percentage of return of reports: .....100.....%

	NAME OF REPORTING UNIT	Pre-school age children (1-4 years)		School age children (5-14 years)		Adults (≥15 years)	
		Male	Female	Male	Female	Male	Female
1	Village X	0	0	3	4	2	6
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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21							
22							
23							
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25							
26							
27							
28							
29							
30							

Person reporting: ..... Reporting date: .....

Form for data collection at the peripheral level – Register, page 1

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	John	Smith	32	M	5		
2	Mary	Smith	30	F	4		
3	Anna	Smith	5	F			4
4	Ryan	Smith	7	M	2		
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data collection at the peripheral level – Register, page 2

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Lisa	Johnson	35	F	4		
2	Christina	Johnson	12	F	2.5		

Notes:
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data collection at the peripheral level – Register, page 3

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Mary	Williams	49	F	3		

Notes:
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data collection at the peripheral level – Register, page 4

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	James	Jones	45	M			5
2	Robert	Jones	40	M	5		
3	Kyle	Jones	15	M	4		
4	David	Jones	6	M	1.5		
5	Michelle	Jones	5	F	1		
6	Nicole	Jones	5	F	1		

Notes:
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data collection at the peripheral level – Register, page 5

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Jane	Brown	25	F	4		
2	Alice	Brown	11	F	2.5		
3	Henry	Brown	8	M	2		
4							
5							
6							
7							
8							
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12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data collection at the peripheral level – Register, page 6

Country: .Your country name..... Region/Province: .Western..... Sub-district: .Health Facility 6.....

Place of treatment: ..Village X (*Village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Georgia Brown Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...3.....		
	Name	Address			Drug 1: .....PZQ..... (name of drug) Enter number of tablets given	Drug 2: ..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Sam	Davis	82	M			9 (died)
2	Ashley	Davis	1	F			4
3	Sue	Davis	21	F	3		
4	Linda	Davis	18	F	4		
5							
6							
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18							
19							
20							

Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).

If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

Form for data compilation at the peripheral level – Tabulated summary

FORM FOR SUMMARIZING PREVENTIVE CHEMOTHERAPY TREATMENTS

Country: .....Your country..... Administrative level: .....Village X..... Round of treatment: ..1.....
Total population: 30

PC implemented	Yes or No	Drug used	Number of tablets received	Number of tablets used	Number of tablets remaining
M1	Yes	IVM	100	38	62
M1	Yes	ALB	30	17	13

Total number of reports expected: .....1..... Total number of reports received: ....1.....
Percentage of return of reports: .....100.....%

	NAME OF REPORTING UNIT	Pre-school age children (1-4 years)		School age children (5-14 years)		Adults (≥15 years)	
		Male	Female	Male	Female	Male	Female
1	Village X	0	0	5	2	5	5
2							
3							
4							
5							
6							
7							
8							
9							
10							
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29							
30							

Person reporting: ..... Reporting date: .....

Form for data collection at the peripheral level – Register, page 1

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	John	Smith	32	M	4	1	
2	Mary	Smith	30	F	3	1	
3	Anna	Smith	5	F		1	4 for IVM
4	Ryan	Smith	7	M	1	1	
5							
6							
7							
8							
9							
10							
11							
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

Form for data collection at the peripheral level – Register, page 2

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Lisa	Johnson	35	F	3	1	
2	Christina	Johnson	12	F			3
3							
4							
5							
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

Form for data collection at the peripheral level – Register, page 3

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Mary	Williams	49	F	3	1	
2							
3							
4							
5							
6							
7							
8							
9							
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

Form for data collection at the peripheral level – Register, page 4

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	James	Jones	45	M	3	1	
2	Robert	Jones	40	M	4	1	
3	Kyle	Jones	15	M	3	1	
4	David	Jones	6	M	1	1	
5	Michelle	Jones	5	F	0.5	1	
6	Nicole	Jones	5	F	0.5	1	
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

Form for data collection at the peripheral level – Register, page 5

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Jane	Brown	25	F	3	1	
2	Alice	Brown	11	F	2	1	
3	Henry	Brown	8	M	1	1	
4							
5							
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

Form for data collection at the peripheral level – Register, page 6

Country: ……Your country..... Region/Province: .Western..... District: . Health Facility 6.....

Place of treatment: ..Village X *(village selected for assessment)*..... ☐Health centre ☐ Village ☐ School

Name of distributor: Susan Jefferson..... Dates (dd /mm/yr): ...05 /06/2013... to ..07/06/2013.....

No	**INDIVIDUAL IDENTIFICATION**		Age (years)	Sex (M/F)	**ROUND No:** ...1.....		
	Name	Address			Drug 1: .....IVM..... (name of drug) Enter number of tablets given	Drug 2: .....ALB..... (name of drug) Enter number of tablets given	Reasons for non-treatment *(Enter code as given below)
1	Sam	Davis	82	M			9 (died)
2	Ashley	Davis	1	F			4
3	Sue	Davis	21	F			1
4	Linda	Davis	18	F	3	1	
5							
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Notes:

*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.

If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs). If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years

POST-TEST

Total estimated module time: 20 minutes

All training participants will complete post-test at the closure of the DQA training.

Just as you did during the pre-test, pass out one post-test to each participant. Remind the participants that the purpose of the pre-post tests is to assess the knowledge of the training participants as well as the effectiveness of the training. Participants should write their names, or the same unique identifiers as used on the pre-test, on the top of the tests in order to compare the pre-tests to the post-tests. Tell participants that they will have 20 minutes to complete the post-test. Again, participants may ask facilitators questions during the tests. While facilitators may answer clarifying questions, they should not provide answers to any pre-post test questions.

After participants have been working on their tests for 15 minutes, tell them that they have 5 minutes left. Collect the tests after 20 minutes. Facilitators will analyze the pre-post tests after the training.

TRAINING EVALUATION

Total estimated module time: 10 minutes

At the conclusion of the training, provide each participant a training evaluation to complete. Explain to them that the survey may be filled out anonymously and its objective is to get their feedback on the training so that it may be improved for future participants. Let them know that their input is very valuable and they should be as honest as possible. Thank them for their time.

ANALYSIS OF PRE-POST TESTS

This activity will be completed by the facilitator after the training has concluded.

After the training has concluded, facilitators should examine the responses to the pre-post tests. Complete the following steps to analyze each test:

1. Match each pre-test to the post-test by participant's name (or unique ID).

2. Mark each response as correct or incorrect using the Facilitator's Answer Keys below.

3. Some key variables to measure:
    a. **Number of Respondents:** This is the number of participants in the course who answered at least a portion of the items on the test.
    b. **Response Rate:** This is the number of respondents divided by the total number of participants in the training.
    c. **Individual Test Score (% correct):** This is the number of correct responses divided by the total number of questions on each test multiplied by 100, for each training participant. Training facilitators may want to determine whether there should be a *passing cut-off*, below which individual participants may have to retrain or be provided with additional support before actually conducting a DQA. (Please note that it won't be possible to identify specific participants that need additional training, if only a unique ID is provided, rather than a name.)
    d. **Mean Test Score (% correct):** This is the average of the test scores of all the respondents, multiplied by 100.
    e. The **Learning Gain** indicates whether the participants learned overall. This is the mean post-test score of all of the respondents minus the mean pre-test score of all of the respondents.
    f. **Matched Gain:** Each respondent's post-test score minus his/her pre-test score.
    g. **Item-specific Results:** What is the average number of participants who responded correctly to each question in the pre-test and the comparable question in the post-test? If there are specific items that many people are answering incorrectly in the post-test, this may indicate that the message was not very clearly taught during the course or the item did not capture what was taught.