HELPFUL HINTS

Routine Data Quality Assessment

The routine data quality assessment (RDQA) tool has two components:

1. The systems assessment is a qualitative approach to examining the overall structure and functions of a data management and reporting system.
2. The data verification process gauges the timeliness, completeness, and accuracy of data that are collected and reported in the system.

The tool's user manual can be found here: https://www.measureevaluation.org/resources/publications/ms-17-117.

The following are practical tips on using the tool, based on MEASURE Evaluation's application of RDQA since 2007 in scores of countries. These hints chiefly apply to the data verification component of the tool.

Engage local stakeholders early and often. Engaging representatives from local stakeholder groups will increase buy-in and add value to the results of your study. For example, to get into the facilities to conduct data quality assessments (DQAs), you may need a letter from the ministry of health (MOH) and support from district health teams—all of which will require coordination. You will also need official definitions of indicators to collect information accurately. Before you train your field team, you will need to have worked with stakeholders to obtain official definitions of indicators and procedures. You will also need to know your target audience for presentation of findings so that you reach those who need the data for making decisions.

Know the country's standard operating procedures (SOPs) and health information system (HIS) forms. Most countries have SOPs, standard HIS forms, and other documents that outline the proper collection and reporting of routine data. Ensure that facilitators and leaders implementing the RDQA understand the processes for collecting and reporting data at each step, and know which forms to use for the indicators selected for the RDQA. This knowledge is crucial to properly plan and implement the data verification component and should be prioritized during the desk review (Step 5 of the RDQA process) and the first site visit to assess the national or central monitoring and evaluation (M&E) unit (Step 6).

FIND ONLINE

A menu of tools for assessing data quality can be found here: https://www.measureevaluation.org/resources/publications/tl-19-26.

Investigate indicator definitions. Know what the most recent health management information system (HMIS) protocol calls for. Know when data collection forms were last updated and understand the most recent guidance from international and funding organizations. Indicator definitions may have changed and new forms may not yet be provided to all health facilities.

Avoid a reporting period with "transitions" or problematic events. The DQA tool provides some guidance on selecting a reporting period for the data verification. In addition, we advise avoiding periods such as shown in these examples:

- In April 2015, Country A started to report antenatal care (ANC) 4+ visits instead of an "ANC 4th visit" and, therefore, forms related to this indicator were revised and distributed in April and May 2015. A DQA that includes indicator ANC 4+ visits in Country A should therefore avoid the reporting period during the two months of transition to the new HIS forms.
- Country B experienced a contentious presidential election in March 2017. Many health facilities were closed or operated at minimum capacity during March

and April 2017. Country B should avoid conducting an RDQA in such months.

- There was a national nurses' strike in Country C in June 2017, with varying levels of disruption in different parts of the country. Because many of the patient registers and monthly HIS forms are completed by nurses, a reporting period inclusive of the June disruption may not accurately reflect overall data quality.

Give clear instructions on how to document data quality issues that may be common across multiple sites. Stakeholders in the MOH and the central M&E unit are usually aware of widespread data quality issues and local issues at subnational levels. Be aware of known quality issues and make clear how they should be documented in the DQA. This is especially important for larger DQAs that require multiple teams for the data verification process. We have found that team members tend to overlook data quality issues that they repeatedly encounter across multiple sites. Team members may subconsciously perceive repeated errors as standard protocol if most sites commit them. Emphasize these issues during training. Here are some examples of common errors:

- Sites must submit monthly reports by the 5th of the following month in order for the reports to be considered on time; however, most sites are submitting reports by the 15th of the following month.
- All fields must be filled in, including "0" or "-" to indicate zero, in order for a register to be considered complete; however, most sites leave fields blank to indicate zero.

Data collectors should agree beforehand what constitutes a given score. For example: Does the guidelines document need to be seen to get credit? Does it have to be a printed copy? Or would an electronic version on someone's laptop suffice? The responses should be coded consistently across data collection teams.

Give clear instructions on how to handle approved practices that vary from the SOP. The MOH and central M&E unit may have approved practices that vary from the SOP. In these situations, consult with the MOH and M&E unit on exact acceptable methods. This information should be shared explicitly during training for larger DQAs that require multiple data verification teams. Here are some examples:

- The MOH allowed subnational offices to add extra fields to standard HIS forms to accommodate their specific data needs. The extra fields should not disrupt the standard section of the form.
- The definition and reporting methods for an indicator were revised, but the updated information was not reflected in the SOP. The MOH should provide the new definition and reporting methods.
- The MOH recently revised the ANC register and transitioned facilities to the new registers; some facilities are using the new register but others are still using the old one. Instructions should be provided on how to audit data from both the old and new versions of the register.

Use cheat sheets in the field. Use examples of existing data collection forms to train assessors on what fields they should be looking for. Actual examples will improve efficiency and accuracy during the assessment. This is especially important for larger DQAs that require multiple teams for data verification.

Consider using the Routine DQA+Gender tool for working with gender-sensitive indicators. The gender-integrated routine data quality assessment (RDQA+G) tool enables national programs or donor-funded projects to evaluate their own data quality with a special focus on gender data (including sex and age disaggregation) while continuing to improve reporting performance and prepare for data quality audits.

The tool is available here: https://www.measureevaluation.org/our-work/gender/gender-integrated-routine-data-quality-assessment-rdqa-g-tool/gender-integrated-routine-data-quality-assessment-rdqa-g-tool.

Have a good line of communication while the assessment team is in the field.

Consider using an application such as WhatsApp or GroupMe to communicate easily with assessors in the field. This will allow issues in data collection and verification to be identified and addressed early. This provides an opportunity for real-time updates from the field and is especially important for larger DQAs that require multiple teams for data verification.

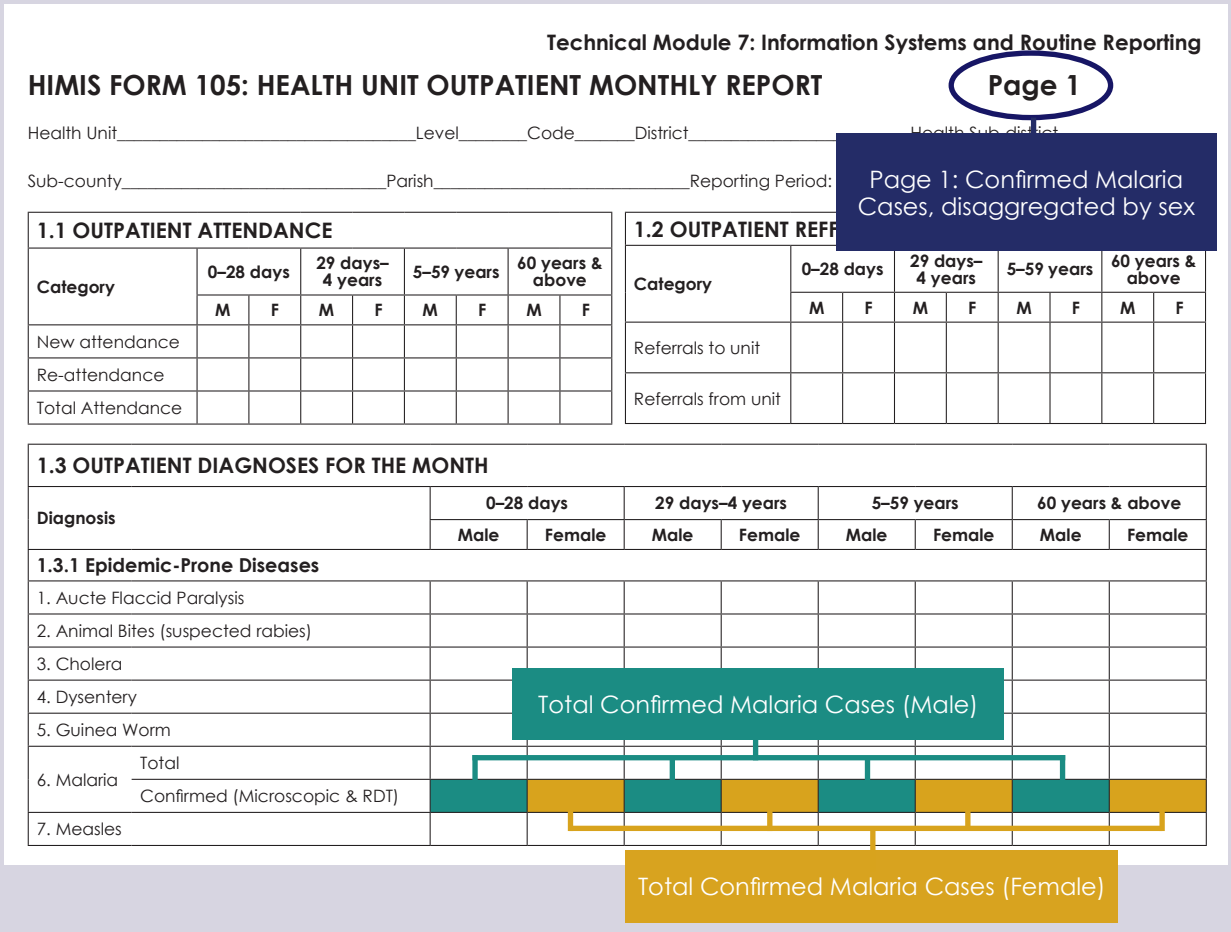
Consider how to best present the data.

Remember, when presenting the data for accuracy, the plus (+) or minus (-) signifies over- or under-reporting and not "better" or "worse" reporting. In order to look at change in data quality over time, you have to look at magnitude.

EXAMPLE: CHEAT SHEETS FOR THE DQA TEAM

In the case of this DQA, the assessment team was counting confirmed malaria cases from monthly facility forms. This cheat sheet shows the exact form and highlights the fields that should be counted, while providing information on what to do if the facility isn't using the most current form.

It will also be helpful to understand how forms relate to registers, when applicable.



Technical Module 7: Information Systems and Routine Reporting

HIMIS FORM 105: HEALTH UNIT OUTPATIENT MONTHLY REPORT

Page 1

Health Unit_____Level_____Code_____District_____ Health Sub-district

Sub-county_____Parish_____Reporting Period:

Page 1: Confirmed Malaria Cases, disaggregated by sex

1.1 OUTPATIENT ATTENDANCE

Category	0–28 days		29 days–4 years		5–59 years		60 years & above	
	M	F	M	F	M	F	M	F
New attendance								
Re-attendance								
Total Attendance								

1.2 OUTPATIENT REFF

Category	0–28 days		29 days–4 years		5–59 years		60 years & above	
	M	F	M	F	M	F	M	F
Referrals to unit								
Referrals from unit								

1.3 OUTPATIENT DIAGNOSES FOR THE MONTH

Diagnosis	0–28 days		29 days–4 years		5–59 years		60 years & above	
	Male	Female	Male	Female	Male	Female	Male	Female
1.3.1 Epidemic-Prone Diseases								
1. Aucte Flaccid Paralysis								
2. Animal Bites (suspected rabies)								
3. Cholera								
4. Dysentery								
5. Guinea Worm								
6. Malaria – Total								
6. Malaria – Confirmed (Microscopic & RDT)								
7. Measles								

Total Confirmed Malaria Cases (Male)

Total Confirmed Malaria Cases (Female)

Note: If facility is using old HMIS 105 form, which does not have Confirmed Malaria cases, count the Total cases and include a note in the "comments" column in the Excel tally workbook.

EXAMPLE: CHANGES IN INDICATOR DEFINITIONS

International guidance on indicator definitions changes over time to reflect emerging research and best practices in provision of health services. For example, in 2016 the definition of adequate ANC changed from four ANC visits over the course of the pregnancy to four or more visits, thus changing how data are collected on forms. It became important to ensure that DQA team members were collecting data and tallies from the appropriate boxes.

Technical Module 7: Information Systems and Routine Reporting

HIMIS FORM 105: HEALTH UNIT OUTPATIENT MONTHLY REPORT **Page 4**

2. MATERNAL AND CHILD HEALTH (MCH)

2.1 ANTENATAL			**NUMBER**
A1-ANC 1st Visit for Women	Total	10–19 years	
		20–24 years	
		>=25 years	
	No. in 1st Trimester		
A2-ANC 4th Visit for Women		10–19 year	
		20–24 years	
		>=25 years	
A3-ANC 4+ Visits for Women			

MATERNITY CONTINUED		**NUMBER**
M6: Women testing HIV+ in labour	1st time this pregnancy	
	Retest this pregnancy	
M7: HIV+ women initiating ART in maternity		
M8: Deliveries to HIV+ women in unit	Total	
	Live births	

Page 4: ANC 4+ Visits

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