



**UNITED REPUBLIC OF TANZANIA**  
MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT,  
GENDER, ELDERLY AND CHILDREN

# **NATIONAL GUIDELINES ON HIV and AIDS DATA MANAGEMENT**

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NATIONAL AIDS CONTROL PROGRAMME  
JANUARY 2017



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## ABBREVIATIONS AND ACRONYMS

|          |   |
|----------|---|
| AIDS     | Acquired Immunodeficiency Syndrome                                      |
| ART      | Antiretroviral Therapy  |
| CHMT     | Council Health Management Team  |
| CSO      | Civil Society Organization  |
| DACC     | District AIDS Control Coordinator                                       |
| DMO      | District Medical Officer  |
| DHIS2    | District Health Information System Version 2                            |
| DHP      | District Health Profile   |
| GF       | Global Fund   |
| GFDQA    | Global Fund Data Quality Audit  |
| HBC      | Home Based Care   |
| HIV      | Human Immunodeficiency Virus  |
| IPs      | Implementing Partners   |
| LGA      | Local Government Authority  |
| MOHCDGEC | Ministry of Health, Community Development, Gender, Elderly and Children |
| MTEF     | Medium-Term Expenditure Framework                                       |
| NACP     | National AIDS Control Programme   |
| NGO      | Non-Governmental Organization   |
| PAF      | Performance Assessment Framework  |
| PEPFAR   | President's Emergency Plan for AIDS Relief                              |
| PITC     | Provider Initiated Testing and Counseling                               |
| PMS      | Patient Monitoring System   |
| QA       | Quality Assessment  |
| RAS      | Regional Administrative Secretary                                       |
| RMO      | Regional Medical Officer  |
| RHMT     | Regional Health Management Team   |
| TA       | Technical Assistance  |
| TOR      | Terms of Reference  |
| TSPA     | Tanzania Service Provision Assessment survey                            |
| STI      | Sexually Transmitted Infections   |
| URT      | United Republic of Tanzania   |
| USAID    | United States Agency for International Development                      |
| VCT      | Voluntary Counseling and Testing  |

## ACKNOWLEDGEMENTS

The Ministry of Health, Community Development, Gender, Elderly and Children wishes to acknowledge the contribution of organizations and individuals who made the development of these guidelines a success. We would like to single out invaluable contribution of the technical persons including Dr. Eppaphroditus Msambali, Miss. Zaddy Kibao (Measure Evaluation), Mr. Japhet Kamala (UCC), Dr. Amon Sabasaba (MUHAS), Miss. Sophia Samson (PMTCT fellow), Miss. Caroline Shayo (IHI), Mr. Daniel Sanga (MDH), and Mr. Samwel Masasi (UCC).

Development of this guideline document could not be achieved without the contribution of Health Care Workers and AIDS Coordinators whose perspective and ideas played a major role in shaping the contents of these guidelines.

Special thanks also go to the WHO for provision of financial support, which made the development and production of these guidelines possible.

Last but not the least I wish to acknowledge the technical team from NACP and RCH (PMTCT) in designing the formulation process and provision of technical inputs, final editing and coordination of the whole process. The team included Drs. Angela Ramadhani, Geoffrey Somi, Denis Mzaga, Aafke Kineno, Patrick Mwidunda and Prosper Njau, Mr. Jeremiah Mushi, Mr. James M. Juma, Mr. Bernard Rabiël, and Mr. George Laizer .

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*Published in 2016*

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*ISBN 978-9987-03-4*

*Any part of this Report can be used provided that the source which is the Ministry of Health, Community Development, Gender, Elderly and Children is acknowledged.*

# CHAPTER 1

## INTRODUCTION

### 1.1. Background:

In 2012, the Tanzania HIV and Malaria Indicator Survey (THMIS 2011-2012) estimated that 5.3 % of adults aged 15-49 years in Tanzania mainland were living with HIV. The survey further showed that the prevalence was relatively higher among women compared to men (6% and 4% respectively). In comparison with the previous survey, the HIV prevalence has declined slightly by one percent among adults of the same age group (THMIS 2007-2008).

In response to the HIV epidemic, different interventions are being implemented in the country, these include: HIV Testing and Counseling -HTC, Care and Treatment Services, Home Based Care- HBC, Sexually Transmitted Infections- STI, Prevention Of Mothers to Child Transmission–PMTCT, National Blood Transfusion Services, Gender Based Violence, Information, Education and Communication-IEC/ Behavior Change Communication – BCC , Condom programming and Voluntary Medical Male Circumcision – VMMC which contribute in the reduction of new HIV infection.

The above mentioned interventions are being monitored using standardized Monitoring and Evaluation (M&E) tools to inform programmers, policy makers and other HIV and AIDS stakeholders for data use and evidence based decision making. Globally, the implementation of all these interventions is aiming at reaching the goal of 90-90-90 parallel with three zeros. In order to monitor progress towards these goals, efficient M&E system that yield good quality data is needed. These guidelines are intended to provide a clear guidance on how to manage the M&E systems, data handling procedures and accommodate newly established interventions (e.g. Option B+ and VMMC). Consequently, the National Guidelines for management of HIV and AIDS data quality is a key document that will ensure appropriate implementation of M&E activities at all levels of health system in Tanzania. In view of that, all stakeholders are required to adhere to these national guidelines to ensure that quality data is generated, to inform evidence based practice and aid in decisions making.

These national guidelines have been revised to accommodate observed gaps and emerging innovations in the HIV and AIDS M&E systems including unclear guidance on how to harmonize output from various systems, emerging electronic data system, data dissemination and use and recently introduced interventions (e.g. Option B+ and VMMC ).

### 1.2 Intended users of these guidelines

The intended users of these guidelines are, health service providers and supervisors at health facilities, districts, regions and national levels as well as stakeholders and implementing partners.

### 1.3 Scope of National Guidelines for Management of HIV and AIDS Data Quality

These guidelines provide required principles, guidance, procedures and roles of individuals, and teams responsible for data quality management in HIV and AIDS health sector.

### Broad Objective

To ensure that quality data is generated for evidence based practice and aid in decision making.

### Specific Objectives

1. To provide guidance on appropriate procedures for management of HIV and AIDS data.
2. To harmonize data management systems and form standardized management practices for data quality.
3. To provide a standard approach for assessing data quality

# CHAPTER 2

## OVERVIEW OF THE HEALTH SECTOR HIV AND AIDS MONITORING AND EVALUATION SYSTEM

### 2.1 Introduction:

The Health Sector HIV and AIDS Monitoring and Evaluation (M&E) system aims at assessing implementation progress of various interventions while tracking key elements of the programme performance (output, outcome and impact). Therefore, M&E systems generates information that is useful for implementation process i to monitor the desired results. Additionally, information generated by M&E systems is useful for advocacy, resource mobilization and identifying effective sets of intervention for controlling the epidemic thus, a tool for planning.

The current HIV and AIDS M&E system has undergone several reviews to accommodate emerging recording and reporting needs by various stakeholders to bring about system ownership by all players at national, regional, district, Service delivery point and community levels.

### 2.2 Data sources

- Individual/Family/community
- Health services delivery points
- Surveillance, surveys and censuses
- Specific cross sectional and longitudinal research
- Modeling
- Geographical Information Systems

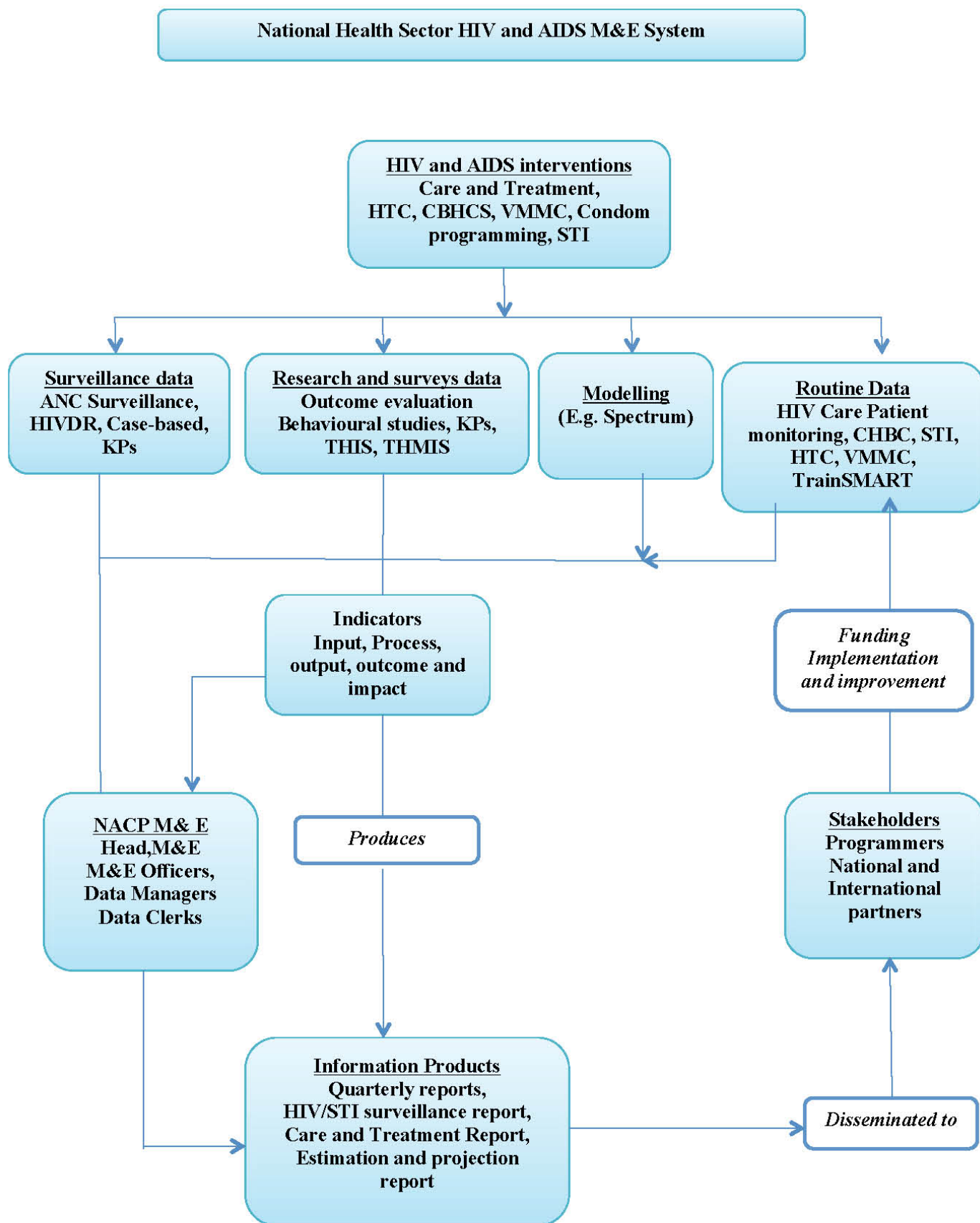
### 2.3 Data Recording and Reporting Tools

Programme monitoring is done by analyzing data collected and reported using the following standardized tools. Recording;

- **REPORTING FORMS:** Located at service delivery points e.g. either at the Service delivery point, Community, district and/or regional. These forms include: HIV Exposed Infant (HEI) card, HTC and STI monthly reports, and quarterly CTC report.
- **DATA REGISTERS:** Located at service delivery points e.g. Service delivery point or the Community and include: HBC register, pre/ART register, MTUHA 6, 12, 13.
- **DATABASES:** Located at the Service delivery point, district, Regional and National. These include; CTC2, DHIS2, and CTC3 macro databases
- **PATIENT FILES:** The files contain the prescription records, clinical notes, transfer in/out forms and other related notes relevant for monitoring patients' clinical progresses.

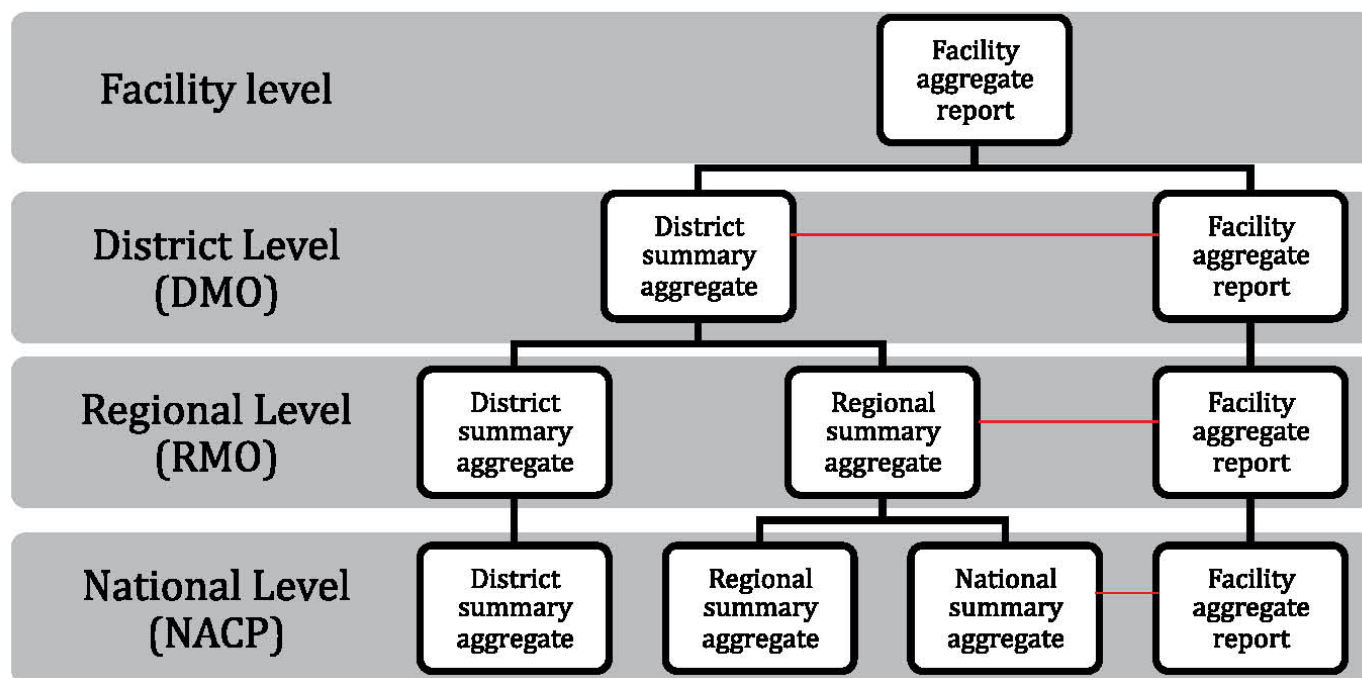


Figure 1: Illustration of the relationship between interventions, sources of data and processes within the health Sector HIV and AIDS M&E system



At Service delivery point level, patient level data is aggregated to generate monthly/quarterly summary reports, which are validated by in-charge of the service delivery point level and submitted to the DMO's office. Upon receipt, DMOs validate service delivery point reports and aggregates to form district summary report. The DMO office then submits both validated individual Service delivery point and district summary reports to the RMO. All the districts reports are then aggregated to make one regional report which is validated and submitted to NACP. Data submitted by RMOs to NACP is composed of validated aggregate individual Service delivery point reports, Summary districts aggregate reports, and regional summary aggregated reports.

Figure 2: Levels of data flow

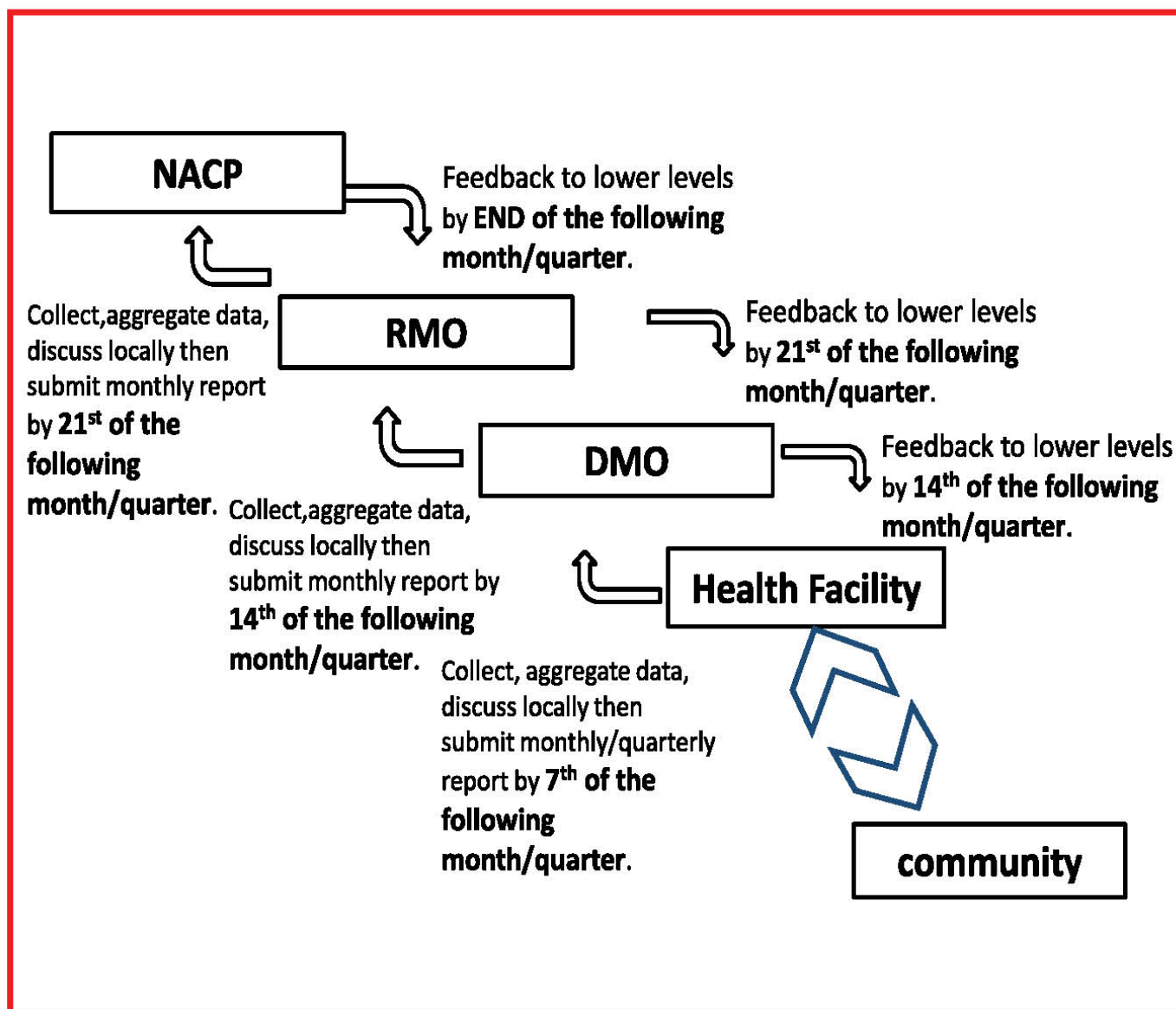


#### De-identified patient level data from CTC2 Database

At Service delivery point level, individual patient data is entered into electronic CTC2 database. Data is updated regularly to ensure that the dataset in the CTC2 is up to date. These data are then de-identified and exported to CTC3 macro-database at national level whenever required.

**To ensure good quality of data at all levels to use guidelines and SOPs for data management at all levels of the health system. Figure 3 below illustrates data management responsibilities at each level, reporting flow and timing, and feedback:**

Figure 3: Data management responsibilities at each level, reporting flow, timing and feedback



# CHAPTER 3

## DEFINITIONS, GUIDING PRINCIPLES AND FRAMEWORK FOR THE IMPLEMENTATION OF DATA QUALITY INITIATIVES

### 3.1 Definitions

#### Monitoring

The routine tracking of the key elements of program or project performance, usually inputs and outputs (may include also tracking of short term program outcomes and long-term impact). Monitoring of a program involves collection of information (data) on a regular basis to measure progress towards achieving specific program objectives. Monitoring is an integral part of every project, from start to finish: monitoring starts at the beginning of a project with the collection of baseline information and managers use project monitoring to determine how well the program is being implemented and at what cost

#### Evaluation

This is the episodic assessment of the change in targeted results that can be attributed to the program or project intervention. Evaluation attempts to link a particular output or outcome directly to an intervention after a period of time has passed.

#### Data

Data is any specific information that is meant to provide and fulfill the role for which it was collected /generated. Data may be numerical or non-numerical.

#### Quality Data

Quality data is the data that is reliably, precise, complete, accurately valid, has integrity and timely represent the measure it was intended to present.

#### Data Quality Assurance

Quality assurance and quality control are strategies for

- Preventing errors from entering a dataset
- Ensuring data quality for entered data
- Monitoring, and maintaining data quality throughout the project
- Identify and enforce quality assurance and quality control measures throughout the Data Life Cycle

#### Data Quality Assessment

Data Quality Assessments involve checking data against- Validity, Integrity, Reliability, Timeliness, Precision, completeness and Confidentiality. Assessments help us determine areas of poor data quality and potential solutions. Data quality improvement is done through the following- Training Implementers, Mentorship, Supportive Supervision, Spot Check, Data Review in data collections tools (e.g. Registers and Monthly Reporting forms) and preparation of standard operations procedure in every level.

## 3.2 Dimensions of Quality Data

There are seven dimensions of quality data, which are meant to ensure quality data is collected, reported and utilized.

### Accuracy

The data collected and reported should be accurate or valid. This means it should correctly measure what it is intended to.

### Reliability

The data recorded and reported must be reliable. This means it shall be collected based on protocols and procedures which do not change among the users in time and frequency. Reliable data is the one measured and collected in a consistent manner.

### Completeness

All data tools used for recording and reporting shall be completed. This means all variables in either recording or reporting tools must be filled in.

### Precision

The data collected must be precise. This means it must have all the parameters and details needed to produce the required information.

### Timeliness

The reports must be submitted to any level must be timely. This implies all the reports produced shall be submitted to the next reporting level within the recommended timeframe.

### Integrity

All data must ensure Integrity. This means data generated by a program is protected from deliberate bias or manipulation for any reason, be it political or personal.

### Confidentiality:

All data must be kept confidential. This means collected data is maintained and protected from any access by unauthorized person. Data shall not be exposed to any person until permission from the relevant office is obtained.

## 3.3 Framework for Data Quality Management

### 3.3.1 Organizational Structure.

There should be documented organizational structure/chart that clearly identifies positions that have data management responsibilities at all levels.

All staff positions dedicated to M&E and data management systems should be identified and filled. (See Box 3.3)

### **Box: 3.3 organizational layout at all levels**

**Health Facility Level:** Head of Service delivery point (team lead), data entry personnel, Clinical staffs (including: Nurses, Clinicians and Doctors) who in some way are tasked to attend patients and/ or recording data and produce of reports

**Council Level:** DMO (Team Lead) , CHMT, DACC, HIMIS Focal, Lead persons for various interventions e.g. PMTCT, Care and treatment, STI, HTC, VMMC, Data managers for DHIS2 database, ,

**Regional Level:** RMO (Team Lead), RHMT, RACC, HMIS Focal, Focal Persons for: PMTCT, C&T, STI, HTC, VMMC, TB/HIV, GBV,

**National Level:** NACP Program Manager (Team lead), Head of M&E, Data Managers, M&E Officers, Data entry personnel, Technical support team on CTC3 macro (UCC) and DHIS2 databases (UDSM),

### **Training**

The M&E training needs should be assessed at all levels of health service delivery to come up with training gaps. The gaps should be used to prepare training plans that will be integrated in the Service delivery point/ comprehensive council health plans. These plans could then include some training on data management processes.

The National curriculum for M&E trainings should be developed and shared among stakeholders. The indicators for HIV and AIDS interventions should be selected from the validated set of indicators responding to the HIV and AIDS strategic plan (HSHSPIII). Such selection should involve all stakeholders in order to harmonize the reporting needs and prevent emergence of parallel reporting systems.

### **3.3.2 Requirements for Data Reporting**

- All reporting entities starting from service delivery points upwards shall abide to the reporting requirements and timelines which are specified in these guidelines.
- Only up to date MOHCDGEC approved recording and reporting tools shall be used in all service delivery points.
- In-charge of the service delivery point shall always ensure the availability of the recording and reporting tools.
- The stakeholders at all levels shall support and enforce use of the approved tools.
- The MOHCDGEC shall provide Standard Operating Procedures (SOPs) and training package for all M&E tools.
- Feedback shall be systematically provided to all sub reporting levels.
- In-charge of service delivery point shall ensure regular back-up procedure for when data entry or data processing is computerized.

### 3.3.3 Links with National Reporting System.

- Facilities shall ensure that the ART current number are compared and harmonized with data from pharmacy database/dispensing register. Service delivery points with computerized systems, CTC2 database shall be linked to Pharmacy module to harmonize and reconcile ART current numbers.
- At the district level all HIV and AIDS data shall be entered into the DHIS2. The LARGE VOLUME COMPUTERISED service delivery points, shall directly be linked to DHIS2 to enable data entry from within the facilities and avoid human errors during data entry
- At the National level DHIS2 shall form the main repository for HIV and AIDS data.

# CHAPTER 4

## DATA PROCESSES FOR HIV AND AIDS SERVICES

### 4.1 Overview

It is important that the dimensions of quality data are maintained at each stage of data recording and compilation process for both paper-based and electronic records. It is the responsibility of the data management team at each level to ensure that the appropriate recommended tools and procedures are in place to obtain quality data.

### 4.2 Data Recording

Data recording systems at service delivery points include

- Paper based systems
- Electronic systems.
  - Health Services Provider (HSP) for HIV and AIDS related intervention should ensure the use of standard paper/electronic based data collection tools for proper documentations and further processing.
  - On a weekly basis, the immediate supervisor of HSPs should select at random 10 to 20 files for clients who visited during the week, to check for data completeness, accuracy, and compare them against other available tools. HSPs should be given feedback immediately.
  - For conducting electronic data entry, the data entrants should ensure that all incomplete tools are identified, noted and returned to the responsible HSP for rectification.
  - Health delivery point will entirely depend on electronic database (Stop using registers) when the following criteria are met;
    - o The facility should have a programmed computer with a password
    - o Computer should have a backup system which is done regularly at least once a week
    - o Health care workers should have been trained and competent enough to operate the database (data entry, preparation and uploading reports, documents backup, and printing all registers when needed)
    - o A computer should have active antivirus which is regularly updated
    - o High volume facilities with 200 clients or more. However, if above criteria are all met, the facility will stop using registers irrespective of the number of clients

#### Note:

Before stopping using registers, all key stakeholders should be convinced that not using register won't compromise service provision and data quality

### 4.3. Data Entry and Checking

#### 4.3.1 Data entry

Several HIV and AIDS interventions have or will have databases specifically designed to accommodate client level data. Data entrant/supervisors must be computer literate and trained in the use of the relevant database and ethics related to confidentiality.



### 4.3.2. Data Checking

Database systems should be designed with data checks. The data entrant should perform the following tasks,

- Data checks on daily basis.
- Print out errors reports for follow up.

### 4.3.3 Data entry supervisor must:

- Ensure that all the data entry errors are corrected appropriately
- Assist the data entrant to resolve errors beyond their capacity
- Ensure that all incomplete records are identified, noted and returned to the responsible HSP for rectification.

## 4.4 Data Reporting System

### 4.4.1 Data reporting systems at service delivery point

#### Paper Based System

- Service providers at various service delivery points should crosscheck information recorded on cards and compare with the information recorded in registers.
- Data management team at service delivery point level should systematically review the data records available, and note missing information.
- Cross-reference should be done to all available patient records e.g. laboratory result forms and pharmacy data must be reviewed to ensure that are captured accurately on the recording tool/cards.
- All tools with missing/incomplete data shall be kept separately for review and feedback must be given to the Service delivery point staff at the end of the clinic visit/assessment.

#### Electronic based system

- Service delivery point in charge shall make sure that data entrant enters all information into electronic system from HIV and AIDS source documents.
- Data management team at Service delivery point should systematically validate reports and missing information from electronic recording systems e.g. CTC2 database and pharmacy module database.

### 4.4.2 Data summary and reports

Similar requirements exist for data summarization and reporting at different levels of service delivery system and their roles in preparing summary reports includes:

#### Service delivery point level:

##### Service delivery point in charge shall

- Ensure Data are entered immediately after being recorded
- Summarize data in Monthly/Quarterly basis by using recommended summary reporting forms for each HIV and AIDS intervention
- Compile/generate reports at a recommended period
- Ensure the report compiled/generated is verified before being submitted to the next level
- Ensure sharing of Summary reports with clinical management team

### **Data entrant shall**

- Keep records of data received for processing, and note; date received data type, number and source of the data
- Indicate entered paper records by putting a mark/tick
- Keep track of files that have been sent to service providers for correction
- Consult supervisor if encounter an error during data entry

### **Data entry supervisors shall**

- Keep track of the records filled and submitted for entry

### **Council Level:**

- DACC and/or HIMS coordinator should ensure summary reports from all service delivery points in the district are timely received and verified
- DACC and/or HIMS coordinator should carefully aggregate Service delivery point reports and generate the district summary reports, and submit to DMO for verification.
- District summary reports should be shared with members of CHMT and copies sent to the RMO office within recommended timeline.
- Copy of summary report is entered in the DHIS2
- Provide feedback to service delivery point

### **Regional Level:**

- RACC should ensure all the district summary reports in the district are timely received and verified.
- RACC should carefully aggregate the district reports to generate the regional summary reports, and submitted to RMO for verification.
- Regional summary reports should be shared with members of RHMT and copies sent to MOHCDGEC office within recommended timeline.
- Provide feedback to the district level

### **National Level:**

- National Monitoring and evaluation unit should ensure timely receiving of reports from all the regions and verify them.
- The unit must compile submitted reports to generate national Quarterly/Semiannual/Annual reports.
- The national report should be shared first with all MOHCDGEC units and all other relevant stakeholders.
- Provide feedback to the regional level

## **4.5 Data Storage**

Each reporting level is required to ensure appropriate storage, maintenance, security and archiving of their electronic and paper based records. Data should be stored in such a way that:

### **4.5.1: At Service Delivery Point**

#### **Paper based system**

- All primary data sources such as cards/registers shall be stored in a secured place under lock and key and accessed by authorized staff.

- Clients files/documents shall be arranged in a way that are easy to retrieve
- Data entrants shall maintain the adherence to proper storage system for all cards/registers and reports.
- In-charge of service delivery point shall conduct regular checks of the filing system.

### **Electronic based System**

- Service Delivery Point shall have reliable:-
  - i) Computer with password
  - ii) Printer.
  - iii) Data backup device.
  - iv) Source of electric power.
  - v) Active antivirus in the computer
- All data entrants should be knowledgeable to electronic data storage.
- Service Delivery Point in charge must ensure daily incremental data backup which is stored in safe environment away from the computer room and regularly cross checked.
- Service Delivery Point in charge shall have administrative rights of the system, and ensure each user has individual login credentials.
- For Microsoft windows operating systems, there should be an active anti-virus which is regularly updated.
- Data shall be stored in a way that it is protected from physical damage or destruction.

#### **4.5.2: At Council Level**

- DACC/HIMS coordinator shall be responsible for proper storage of all data written reports received from facilities based on the recommended filing system.
- DACC/HIMS coordinator shall make sure the stored documents can easily be accessed by other authorized staff during his/her absence
- DACC/HIMS coordinator shall print and file all districts compiled reports.
- DMO shall regularly cross check that the filing and storage system are operational.
- DACC shall collaborate with the regional HMIS coordinator to trace any missing or incomplete information/ reports.

#### **4.5.3: At Regional Level**

- RACC shall collaborate with regional HMIS coordinate to ensure proper storage of all written reports received from districts based on the recommended filing system
- RACC shall collaborate with regional HMIS coordinate to ensure that the stored documents can easily be accessed by other authorized staff during his/her absence
- RACC shall collaborate with regional HMIS coordinate to ensure filing of all printed regional compiled reports
- RMO shall regularly cross check to ensure that the filling and storage system are operational.

#### **4.5.4: At National Level**

- MOHCDGEC/NACP shall provide national data storage SOPs for use at all levels.
- MOHCDGEC/NACP shall be responsible for maintenance and data back-ups for the systems running at national level

#### **4.6: Guideline for Data Retention**

- MOHCDGEC/NACP shall ensure the availability of data-security policies and procedures address handling of paper copies, incoming and outgoing mail, long-term paper storage, and data retention.

#### **4.7 Data Accessibility**

- Only authorized personnel will access data according to SOPs for security and confidentiality.
- In charge of data sources at all levels shall ensure that data management SOPs are adhered to.
- Written permission from recognized authorities is required to access data and in case of data access for research purposes, ethical clearance procedures shall be followed.

#### **4.8: Feedback, Dissemination and Use of Data**

##### **4.8.1: Feedback**

Feedback shall consider quality of received data, progress of their performance and action to be taken.

- In charge of Service Delivery Point shall provide feedback to the data management team as well as to the data sources in their catchment area.
- The CHMT shall routinely provide written feedback to each service delivery point based on data received.
- The RHMT shall routinely provide written feedback to CHMTs and IPs in their regions.
- MOHCDGEC/NACP shall provide:-
  - Feedback to RHMTs
  - SOPs on HIV and AIDS data management.

##### **4.8.2: Dissemination**

Dissemination of data shall be done at all levels with the purpose of sharing and use of information for informed decision making as well as for reporting purposes.

MOHCDGEC has already issued data dissemination tool for district level; the District Health Profile Template (DHP). It is in the process of developing dissemination model for regional levels. Description on how to use DHP is provided in the template.

A list of stakeholders at each level shall be developed using stakeholder's analysis matrix, and will be updated periodically.

- At the health facility level, HIV and AIDS monthly/quarterly reports together with interventions progress updates will be shared and discussed in the monthly Service delivery point technical meetings and in other platforms (e.g. ward development committee, village health committee, Uhuru torch rallies, etc.). The Service delivery point in charge is responsible for the data dissemination.
- At the council level, monthly/quarterly reports shall be presented and discussed in the monthly CHMT meetings. Additionally, HIV and AIDS indicators shall be included in the optional indicator section of the annual DHP report and submitted to the comprehensive council health plans meetings for use. During the quarterly district data review meetings, monthly and quarterly HIV and AIDS reports shall be discussed and other platforms such as HIV and AIDS district committee meetings. Monthly and quarterly reports should be disseminated to specific facilities during CHMT supportive supervisions.
- At the regional level, monthly/quarterly HIV and AIDS reports and progress updates shall be presented and discussed in the regional quarterly data review meetings. Other platforms which can be used for data dissemination are RHMT supportive supervisions, council multi-sectorial HIV and AIDS committee (CMAC), etc.

- At the national level, MOHCDGEC is responsible for data dissemination both vertically and horizontal to various stakeholders including partners, donors and other government entities and shall ensure that the data has been analyzed and verified.

#### 4.8.3: Use of Data

Aggregate or individual level data available at Service delivery point level should be used:

- To monitor and identify patients/clients in need of extra interventions, referrals or care and to alert or remind service providers on clients/patients with particular needs, thus improve HIV and AIDS services.
- To detect alarming trends and highlight successes
- For administrative purposes to improve access, coverage, quality of services, and efficient use of resources.
- For quantification and ordering of drugs and supplies.
- As basis for planning, developing, and ongoing improvement of HIV Interventions

At the council level, only aggregate data from facilities will be available for use:

- For acquisition and distribution of resources
- To make decisions related to construction, expansion of facilities and whether or not to increase human resource at facilities.
- For budgeting and allocation of resources.
- To assists the council authorities to plan interventions, monitor activities at the health Service delivery point, ward and village levels.
- To make decisions related to construction, expansion of facilities, employment and deployment of human resources

**NB:** The council can effectively incorporate ward and village HIV and AIDS control plans into the overall council plans.

At regional level, data from districts will be available and used to know the extent/coverage:

- To acquire and distribute resources accordingly.
- To assess regional performance
- To plan for future interventions according to trend seen from the indicators.
- To make decisions related to construction, expansion of facilities and whether or not to increase human resource at facilities.
- Budgeting and allocation of resources.
- The data assists the regional authorities to plan interventions, monitor activities at the district levels.
- The region can effectively incorporate district HIV and AIDS control plans into the overall region plans.

At the national level data should be used for:

- Monitoring the trends of HIV and AIDS epidemic
- Commodities quantification
- Planning
- Policy formulation
- Resources mobilization, acquisition and allocation
- Performance monitoring of various interventions
- Inform strategic decisions for improvement of interventions

# CHAPTER 5

## DATA QUALITY ASSESSMENT (DQA)

### 5.1 Introduction

The quality of reported data depends on the underlying data management and reporting systems in place at all levels. For good quality data to be produced by and flow through a data management system, DQA is crucial to assess and improve the performance of the systems. Therefore DQA tools are designed to (1) verify the quality of the data, (2) assess the system that produces that data, and (3) develop action plans to improve the performance.

#### How to conduct DQA

DQA Tool consists of three main data collection sheets namely; service delivery site, intermediate aggregation site (districts and regions) and national level where data are reported. Each tool contains three parts for data collection:

Part 1: Data Verifications

Part 2: Data management and reporting Systems Assessment

Part 3: Develop action plans to improve the performance.

### PART 1: Verification of Data

This approach determines whether health care workers at the community and Service delivery point levels have accurately recorded data related to the selected indicator(s) on source documents. It will then trace those data to see whether they have been correctly aggregated and/or otherwise manipulated as they moved from the community, through the Service Delivery point, all the way to the national level.

The data verification exercise is conducted in two stages:

1. ***In-depth verifications at the community/Service Delivery point level:*** There are five types of standard data-verification steps that can be performed at these levels:
  1. **Description:** Describe the connection between the delivery of services and/or commodities and the completion of the source document to record that delivery.
  2. **Documentation Review:** Review availability of M&E tools and completeness of all variables for the selected reporting period.
  3. **Trace and Verification:** Trace and verify reported numbers: (1) Recount the reported numbers from available tools; (2) Compare the reported numbers to the Service delivery point's recorded number; (3) Identify reasons for any discrepancy.
  4. **Cross-checks:** Perform "cross-checks" of the verified report totals with other data-sources (e.g. inventory records, laboratory reports, registers, etc.).
  5. **Spot-checks:** Perform "spot-checks" to verify the actual delivery of services and/or commodities to the target populations.

2. **Verification at the regional, district and national level:** There are three types of standard data-verification steps that can be performed at these levels:

- **Documentation Review-** Review availability and completeness of relevant source documents of selected indicators for the selected reporting period
- **Recounting Reported Results-** Recount results from source documents and compare the verified numbers with reported numbers to the higher reporting level with the intended reporting period.
- **Reporting Performance-** Review availability, completeness, and timeliness of reports

## **PART 2: Assessment of Data Management and Reporting Systems**

This assessment enables a qualitative assessment of the relative strengths and weaknesses of the functional areas of the system. The purpose of this approach is to identify potential threats to data quality posed by the design and implementation of data management and reporting systems. The assessment of the data management and reporting systems takes place in two stages:

- Off-site desk review of documentation.
- On-site follow-up assessments at the national, regional, district and Service delivery point levels.

The seven functional areas of a data management and reporting system which should be assessed include but not limited to;

1. M&E Capabilities, Roles and Responsibilities
2. Training
3. Indicator Definitions
4. Data Reporting Requirements
5. Data Collection and Reporting Forms and Tools
6. Data Management Processes and Data Quality Control
7. Links with National Reporting System
8. Data use

## **PART 3: DEVELOP ACTION PLANS to IMPROVE the PERFORMANCE.**

It is recommended that both parts of the DQA Tool (data verification and system assessment) should be used to assess data quality as per objectives. However, both parts are vital and should be conducted as planned.

### **Frequency**

The frequency of conducting DQA depends on the level and emerging need of the health care system:

#### **1. National level**

There must be at least one annual data quality assessment per intervention. This must be comprehensive to assess all components of data management and should include at least one indicator per program. MOHCDGEC is responsible for coordinating the implementation of this assessment.

#### **2. Regional level**

The RHMT must perform a minimum of two DQA per year to every district. At least one Service delivery point per district must be selected for each round of assessment. During assessment at least one indicator per intervention area should be selected.

### **3. Council level**

DQA should be integrated into quarterly supervisory visits to the service delivery points. However it is recommended that CHMTs perform at least two assessments per year to each Service delivery point and should include at least one indicator per interventions delivered at the Service delivery point.

### **4. Health Facility level**

The Service delivery point in charge should conduct DQA at least once a month, using the Service delivery point DQA Tool. This should help to detect any area which requires improvement.

#### **Selection of Health Facilities for DQA**

Facilities to be visited will be purposefully selected based on reporting performance. Those with poor performance in reporting must be given high priority with the aim of identifying issues to improve. However, it is important to include high performing facilities, with the aim of learning best practices in addition to improving areas of weakness.

#### **Implementation of DQA**

Typically, the implementation of the DQA can be sub-divided in six steps:

1. Determine purpose of the DQA.
2. Identify indicators, data sources and reporting period
3. Select levels and sites to be included
4. Conduct site visits.
5. Review outputs and findings.
6. Develop a system strengthening plan, including follow-up actions.

#### **Ethical Considerations during DQA**

- The data quality assessments must be conducted with the utmost adherence to the ethical standards of the country.
- While the assessment teams may require access to personal information for the purposes of recounting and cross-checking reported results, personal identifiers shall be removed and replaced by identification numbers.
- The Assessment Team should neither photocopy nor remove documents from facilities without permission from service delivery in charge.
- The assessor should not accept or solicit directly or indirectly anything of economic value as a gift, gratuity, favor, entertainment or loan that is or may appear to be designed to in any manner influence official conduct.



# CHAPTER 6

## ROLES AND RESPONSIBILITIES OF DIFFERENT STAKEHOLDERS

### 6.1 Introduction

Health services in Tanzania are organized in four levels: National, Regional, District, and Service delivery point. National and regional levels are involved in policy, coordination and guidance while the district and Service delivery point levels are responsible for implementation. In HIV and AIDS interventions there are several nongovernmental organizations working as implementing partners to support all levels of the health care system.

Each level has a vital role to play in ensuring the quality of data collected and reported across all HIV and AIDS interventions.

### 6.2 National level

MoHCDGEC has several roles in relation to data quality: The following are the major roles:

#### a) Coordination Roles:

The MoHCDGEC coordinates all stakeholders involved in the implementation of health sector HIV and AIDS interventions and ensure uniform measures for data quality are implemented nationwide.

The MOHCDGEC shall:

- Develop M&E systems with standardized recording and reporting tools
- Develop training materials and where necessary train TOTs
- Ensure availability of all recording and reporting tools at all levels
- Ensure availability and use of M&E Standard Operating Procedures
- Ensure timely dissemination of all HIV and AIDS intervention reports, and proper storage of data, records and documentation
- Conduct data analysis, and provide relevant feedback, to all stakeholders involved in HIV and AIDS interventions
- Coordinate formulation of national guidelines for M&E and provide guidance on their implementation
- Ensure harmonization of tools used to conduct DQA at all levels
- Advocate for harmonized recording and reporting system for all HIV and AIDS stake holders

#### b) Training and Supervision

The MOHCDGEC shall:

- Coordinate sustainable pre-service and in-service training on data quality management to health service providers at all levels
- Ensure integration of data quality management activities in routine supervision at all levels
- Conduct supportive supervision and mentoring according to supervision plan

### **c) Data Quality Assessment**

The MOHCDGEC shall:

- Develop standard procedure for DQA
- Conduct data quality assessment at least once in a year to assess the quality of the data collected and reported at different levels
- Ensure regional and district levels conduct data quality assessment at least twice per year

## **6.3: Regional Level**

The following are the responsibilities of the Regional Health Management Team (RHMT):

### **a) Coordination**

The RHMT shall:

- Ensure availability of recording and reporting tools in all districts
- Coordinate implementation of data management activities in compliance with the national M&E guidelines, SOP and protocols.
- Provide technical assistance to districts in the implementation of data quality initiatives.
- Collect monthly/quarterly reports on all HIV and AIDS program areas, verify and aggregate to produce a regional report and disseminate accordingly
- Emphasize timely dissemination of all HIV and AIDS intervention reports, and proper storage of data, records and documentation in all districts
- Ensure timely submission of reports to MOHCDGEC- NACP
- Ensure linkage and collaboration between implementing partners, districts, health facilities and other stakeholders

### **b) Training and supervision**

The RHMT shall:

- Oversee and support capacity building activities on data management at district and Service delivery point levels
- Integrate data quality assessment into quarterly supervision visits to districts and facilities

### **c) Data quality assessment**

The RHMT shall:

- Prepare a regional data quality assessment plan
- Carry out at least two data quality assessments per year which cover all districts, and service delivery points
- Guide districts to conduct data quality assessments

## **6.4: Council Level**

The following are the responsibilities of the Council Health Management Team (CHMT):

### **a) Reporting**

The CHMT shall:

- Ensure reports are received from all service delivery points providing HIV and AIDS related interventions and verify reported numbers before aggregating to produce a district report

- Stamp all reports received to show when they were received and ensure the data are entered into the appropriate database
- Aggregate data from Service Delivery point (paper and/or electronic) to produce district reports (monthly/quarterly) according to the agreed timeline. The reports must be signed by the designated member of the CHMT
- Enquire assessment reports from IPs and other stakeholders including regional and national supervisory teams
- Conduct data analysis at district level and provide relevant feedback to all facilities

b) **Training and Supervision**

The CHMT shall:

- Provide relevant feedback to Service Delivery Points on the findings of data quality assessments and ways to improve.
- Ensure training and mentorship to service providers is routinely conducted.
- Ensure Service Delivery Points have proper storage for paper and electronic systems during supportive supervision
- Identify training needs and develop district training plan

c) **Data Quality Assessment**

The CHMT shall:

- Develop data quality assessment plan for the district
- Facilitate the implementation of data quality activities in the health facilities
- Ensure health service providers involved in data collection and reporting are trained on data quality.
- Integrate data quality assessments into routine supportive supervision
- Ensure data quality assessments are conducted quarterly(at least once per year for each Service delivery point)

**6.5: Health Facility Level:**

The Service Delivery Points Management Team will have the following roles:

The health facility management team shall:

- Ensure availability and use of data collection and reporting tools.
- Ensure completeness of all variables in the data collection and reporting tools.
- Verify the accuracy and reliability of the recorded and reported data.
- Ensure availability and use of SOPs by all staff who are responsible for data management
- Produce Service Delivery Points (monthly/quarterly) reports, disseminate and use at the service delivery point
- Ensure submission of reports to the district level by 7<sup>th</sup> day of the following month
- Ensure proper storage Service Delivery Points are available for storage of data

- Ensure staffs who are involved in data recording and reporting are trained on the data quality guidelines and associated SOPs.
- Implement data quality activities in all sections of the service delivery point where data are being collected and reported according to the guideline

## **6.6: Implementing Partners:**

The roles and responsibilities of the implementing partners are as follows:

Implementing partners shall:

- Collaborate with MOHCDGEC in:
  - i. Formulation of national guidelines and SOPs related to M&E activities.
  - ii. Ensuring sustainable availability of recording and reporting tools.
  - iii. Conducting supportive supervision.
- Collaborate with regional and district teams in training, supportive supervision and mentoring of health service providers on data quality activities
- Support their respective regions to implement data quality assessments and improve the quality of the data.
- Support the CHMT to ensure proper verification and completeness of the data recorded at service delivery points.
- Support the service provision points, CHMTs, and RHMTs to analyze data, produce reports, disseminate and timely submit to higher levels.
- Assist in capacity building for data analysis at service provision point, district and regional level

| National Level   |  |              |                 |
|--|--|--------------|-----------------|
| Date of Assessment:  |  |              |                 |
| Country  |  |              |                 |
| Organization :   |  |              |                 |
| Documents Reviewed:  |  |              |                 |
| Name of assessor   |  |              |                 |
| Name of assessee   |  |              |                 |
| Component of the M&E System  | Answer Codes:<br>Yes – completely<br>Partly<br>No - not at all   | Yes –<br>N/A | National Target |
| <b>REVIEWER COMMENTS</b><br>(Please provide detail for each response not coded "Yes - Completely". Detailed responses will help guide strengthening measures.) |  |              |                 |
| <b>Part 1: Data Verifications</b>  |  |              |                 |
| <b>A - Recounting Results:</b>   |  |              |                 |
| <i>Re-count the numbers from received reports and compare with the national reported number</i>  |  |              |                 |
| 1  | Re-aggregate the numbers from the reports received from all reporting Regions/Service delivery point. What is the re-aggregated number? <b>[A]</b> |              |                 |
| 2  | What aggregated result was contained in the summary report prepared by the M&E Unit? <b>[B]</b>  |              |                 |

|  |   |   |           |
|--|---|---|-----------|
| 3  | Calculate the percentage of recounted to reported numbers. <b>[A/B]</b>   | - | 100%-110% |
| 4  | What are the reasons for the discrepancy (if any) observed (i.e., data entry errors, arithmetic errors, missing source documents, other)? |   |           |
| <b>B - Reporting Performance:</b>  |   |   |           |
| <i>Review availability, completeness, and timeliness of reports from all reporting regions/Service delivery point. How many reports should there have been from all reporting regions/Service delivery point? How many are there? Were they received on time? Are they complete?</i> |   |   |           |
| 5  | How many regions should have reported? <b>[A]</b>   |   |           |
| 6  | How many regions reported? <b>[B]</b>   |   |           |
| 7  | <b>Percentage of Reporting regions [B/A]</b>  | - | 100%      |
| 8  | Check the dates on the reports received. How many reports were received on time? (i.e., received by the due date). <b>[C]</b>             |   |           |
| 9  | <b>Percentage of regional reports received on time [C/B]</b>  | - | 100%      |
| 10   | How many reports were complete? (i.e., complete means that the report contained all the required indicator data*). <b>[D]</b>             |   |           |
| 11   | <b>Percentage of Complete Reports [D/B]</b>   | - | 100%      |
| 12   | How many facilities should have reported? <b>[E]</b>  |   |           |
| 13   | How many facilities reported? <b>[F]</b>  |   |           |
| 14   | <b>Percentage of Reporting facilities [F/E]</b>   | - | 100%      |

## Part 2. Systems Assessment

| <b>I - M&amp;E Capacities, Roles and Responsibilities</b> |  |  |  |  |
|---|--|--|--|--|
| 1   | Is there a documented organizational structure/chart that clearly identifies positions that have data management responsibilities at National M&E Unit                                   |  |  |  |
| 2   | Are all M&E and data management staff positions filled?  |  |  |  |
| 3   | Are the senior staff members (e.g. the Program Manager/ Head of M&E unit) responsible for reviewing the aggregated numbers prior to the submission/release of reports from the M&E Unit? |  |  |  |
| 4   | Are there designated staff responsible for reviewing the quality of reported data (i.e., accuracy, completeness, timeliness and confidentiality)?  |  |  |  |
| <b>II - Training</b>                                      |  |  |  |  |
| 5   | Is there a training plan for staff involved in data-collection and reporting at all levels (national, regional, district, health facility and community)                                 |  |  |  |
| 6   | How many training have been conducted according to the plan?   |  |  |  |
| 7   | What type of M&E training has been conducted for the last six months   |  |  |  |
| <b>III – Definitions of Indicator</b>                     |  |  |  |  |
| 7   | Are the staff involved in data recording and reporting oriented on indicator definitions?  |  |  |  |
| <b>IV - Requirements for Data Reporting</b>               |  |  |  |  |

|   |  |  |  |
|---|--|--|--|
| 8   | The National M&E unit has provided written guidelines to all reporting entities (e.g., regions, districts, facilities) on requirements and deadlines for reporting.                        |  |  |
| <b>V – Forms and Tools for Data Collection and Reporting</b>    |  |  |  |
| 9   | If multiple organizations are implementing activities under the Program/project, do they use the same reporting forms and report according to the same reporting timelines?                |  |  |
| 10  | Has the National M&E Unit identified a standard source document (e.g., medical record, client intake form, register, etc.) to be used by all health facilities to record service delivery? |  |  |
| 11  | The National M&E Unit has identified standard reporting forms/tools to be used by all reporting levels.  |  |  |
| 12  | Clear instructions have been provided by the M&E Unit on how to complete the data collection and reporting forms/tools.  |  |  |
| 13  | Are all received reports available and easily accessible?  |  |  |
| <b>VI - Data Management Processes and Data Quality Controls</b> |  |  |  |
| 14  | Has the National M&E Unit clearly documented data aggregation, analysis and/or manipulation steps performed at each level of the reporting system?   |  |  |
| 15  | Is a written feedback provided to all Regions on the quality of their reporting quarterly/ monthly (i.e., accuracy, completeness and timeliness)?  |  |  |
| 16  | Are there quality control measures in place for when data from paper-based forms are entered into a computer (e.g., system data checks, post-data entry verification, etc.)?               |  |  |
| 17  | Is there a written back-up procedure for when data entry or data processing is computerized? Back-up data are stored off site?   |  |  |



|  |   |  |  |
|--|---|--|--|
| 18   | If yes, is the latest date of back-up correct? (Given the frequency of update of the computerized system e.g., back-ups are done daily or weekly or monthly)                                  |  |  |
| 19   | Are electronic data stored on password protected computer?  |  |  |
| 20   | Are paper reports containing patient data stored in a designated secured location   |  |  |
| 21   | Is there a written procedure to address late, incomplete, inaccurate and missing reports; including following-up with Regional level on data quality issues?                                  |  |  |
| 22   | If data discrepancies have been uncovered in regional level reports, does the National M&E Unit document how these inconsistencies have been resolved?  |  |  |
| 23   | Can the M&E Unit demonstrate that biannual regional supportive supervisory visits have taken place? And that data quality has been reviewed?  |  |  |
| 24   | Has data quality assessment conducted and reports are available   |  |  |
| <b>VII - Dissemination and Use of Data</b> |   |  |  |
| 25   | Availability of updated National health profile with the inclusion of HIV and AIDS indicators, Other HIV and AIDS reports and mechanism for disseminating the information to the lower levels |  |  |
| 26   | Availability of displayed analysis results( e.g. charts, bar graphs, bar trend etc.)  |  |  |
| 27   | Availability of reports of quarterly/ monthly/ biannual meetings for data dissemination   |  |  |

| VII - National Reporting System   |  |   |                    |                   |                            |                |
|---|--|---|--------------------|-------------------|----------------------------|----------------|
| 24  | Are data received through a single channel of the national reporting system? |   |                    |                   |                            |                |
|   |  |   |                    |                   |                            |                |
| <b>Part 3: DQA Action Plan and Recommendations</b>  |  |   |                    |                   |                            |                |
| Summarize key issues that the national M&E unit should follow up at various levels of the system (e.g. issues found at site level and/or at intermediate aggregation site level). |  |   |                    |                   |                            |                |
|   |  | Recommendations to strengthen system performance. |                    |                   |                            |                |
|   | Key finding  | Description of Action Point                       | Person Responsible | Required Timeline | Technical Assistance Needs | Follow Up Date |
| 1   |  |   |                    |                   |                            |                |
| 2   |  |   |                    |                   |                            |                |
| 3   |  |   |                    |                   |                            |                |
| 4   |  |   |                    |                   |                            |                |

| Regional Level   |   |  |               |                                   |  |  |
|--|---|--|---------------|-----------------------------------|--|--|
|  | <b>Date of Review:</b>  |  |               |                                   |  |  |
|  | <b>Name of Region:</b>  |  |               |                                   |  |  |
|  | <b>Documents Reviewed:</b>  |  |               |                                   |  |  |
|  | <b>Name of assessor:</b>  |  |               |                                   |  |  |
|  | <b>Name of assesse</b>  |  |               |                                   |  |  |
|  | <b>Dates of Assessments</b>   |  |               |                                   |  |  |
|  | <b>Component of the M&amp;E System</b>  | <b>Answer Codes:</b><br>Yes - Completely<br>Partly<br>No - not at all<br>N/A | <b>TARGET</b> | <b>PERCENT OF TARGET ACHIEVED</b> | <b>REVIEWER COMMENTS</b><br>(Please provide detail for each response not coded "Yes - Completely". Detailed responses will help guide strengthening measures.) |  |
| <b>Part 1: Data Verifications</b>  |   |  |               |                                   |  |  |
| <b>A - Recounting Reported Results:</b> <i>Recount results from councils' reports, compare the verified numbers to the regional reported numbers and explain discrepancies (if any).</i> |   |  |               |                                   |  |  |
| 1  | Re-aggregate the numbers from the reports received from all Councils. What is the re-aggregated number? <b>[A]</b>    |  |               |                                   |  |  |
| 2  | What aggregated number was contained in the summary report prepared by the Region (and submitted to NACP)? <b>[B]</b> |  |               |                                   |  |  |
| 3  | <b>Percentage of recounted to reported numbers [A/B]</b>  | -  | 100-110%      |                                   |  |  |

|   |  |   |      |  |  |  |  |
|---|--|---|------|--|--|--|--|
| 4   | Is a calculated percentage within target range? If not, what are the reasons for the discrepancy observed (i.e., data entry errors, arithmetic errors, missing source documents, other)? |   |      |  |  |  |  |
| <b>B - Reporting Performance: Review availability, completeness, and timeliness of reports from all districts. How many reports should there have been from all districts? How many are there? Were they received on time? Are they complete?</b> |  |   |      |  |  |  |  |
| 5   | How many councils should have reported? <b>[A]</b>   |   |      |  |  |  |  |
| 6   | How many councils reported? <b>[B]</b>   |   |      |  |  |  |  |
| 7   | <b>Percentage of reporting councils [B/A]</b>  | - | 100% |  |  |  |  |
| 8   | Check the dates on the reports received. How many reports were received on time? (i.e., received by the due date). <b>[C]</b>  |   |      |  |  |  |  |
| 9   | <b>Percentage of reports received on time [C/B]</b>  | - | 100% |  |  |  |  |
| 10  | How many reports were complete? (i.e., complete means that the report contained all the required indicator data). <b>[D]</b>   |   |      |  |  |  |  |
| 11  | <b>Percentage of complete reports [D/B]</b>  | - | 100% |  |  |  |  |
| <b>Part 2. Systems Assessment</b>   |  |   |      |  |  |  |  |
| <b>I - M&amp;E Capacities, Roles and Responsibilities</b>   |  |   |      |  |  |  |  |
| 1   | There are designated staff responsible for reviewing the quality of data (i.e., accuracy, completeness and timeliness) received from districts.  |   |      |  |  |  |  |
| 2   | There are designated staff responsible for reviewing aggregated numbers prior to submission to NACP.   |   |      |  |  |  |  |
| <b>II – Training</b>  |  |   |      |  |  |  |  |
|   |  |   |      |  |  |  |  |

|   |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| 3   | All relevant staff have received training in recording, data processing, reporting, dissemination and use?  |  |  |  |  |  |
| <b>II – Data - Forms and Tools for Collection and Reporting</b> |   |  |  |  |  |  |
| 4   | All previous district reports are available and easily accessible.  |  |  |  |  |  |
| <b>IV - Data Management Processes and Data Quality Controls</b> |   |  |  |  |  |  |
| 5   | A written feedback is provided to all councils every quarter/month on the quality of their reporting (i.e., accuracy, completeness and timeliness). |  |  |  |  |  |
| 6   | There is a back-up procedure for when data entry or data processing is computerized. Back-up data are stored off-site.                              |  |  |  |  |  |
| 7   | The latest date of back-up is appropriate given the frequency of update of the computerized system (e.g., back-ups are weekly or monthly).          |  |  |  |  |  |
| 8   | Paper reports and other confidential data are stored in a designated, locked location.  |  |  |  |  |  |
| 9   | Electronic data are stored on a password protected computer.  |  |  |  |  |  |
| 10  | National guidelines on Management of Data Quality for HIV and AIDS Services are available and in use.   |  |  |  |  |  |
| 11  | If data discrepancies are uncovered in reports from councils, the region has a set procedure to resolve these inconsistencies.                      |  |  |  |  |  |
| 12  | Has data quality assessment conducted and reports available?  |  |  |  |  |  |

| <b>V –Dissemination and Use of Data</b> |  |  |  |  |  |
|---|--|--|--|--|--|
| 13                                      | Availability of updated Regional health profile with the inclusion of HIV/AIDS indicators, Other HIV/AIDS reports and mechanism for dissemination the information to regional team and districts |  |  |  |  |
| 14                                      | Availability of displayed analysis results ( e.g. charts, bar graphs, bar trend etc.)  |  |  |  |  |
| 15                                      | Availability of reports of quarterly/ monthly/ biannual meetings for data dissemination  |  |  |  |  |
|   |  |  |  |  |  |

| <b>Part 3: DQA Action Plan and Recommendations</b>  |                             |   |                   |                            |  |                |
|---|-----------------------------|---|-------------------|----------------------------|--|----------------|
| <i>Based on the findings of the systems' review and data verification at the region, please describe any compliance requirements or recommended strengthening measures, with an estimate of the length of time the improvement measure could take. Action points must be discussed with the RHMT.</i> |                             |   |                   |                            |  |                |
| Key findings  |                             | Recommendations to strengthen system performance. |                   |                            |  | Follow Up Date |
|   | Description of Action Point | Person Responsible                                | Required Timeline | Technical Assistance Needs |  |                |
| 1   |                             |   |                   |                            |  |                |
| 2   |                             |   |                   |                            |  |                |
| 3   |                             |   |                   |                            |  |                |
| 4   |                             |   |                   |                            |  |                |

| Council Level  |   |        |                  |   |  |  |
|--|---|--------|------------------|---|--|--|
|  | Date of Review:   |        |                  |   |  |  |
|  | Name of District:   |        |                  |   |  |  |
|  | Documents Reviewed:   |        |                  |   |  |  |
|  | Name of Assessor:   |        |                  |   |  |  |
|  | Name of Assesee:  |        |                  |   |  |  |
|  | Dates of the Assessment   |        |                  |   |  |  |
| Component of the M&E System  | Answer Codes:<br>Yes - completely<br>Partly<br>No - not at all  | Target | Percent Achieved | Reviewer Comments<br>(Please provide detail for each response not coded "Yes - Completely". Detailed responses will help guide strengthening measures.) |  |  |
|  | Yes - completely<br>Partly<br>No - not at all   | N/A    |                  |   |  |  |
| Part 1: Data Verifications   |   |        |                  |   |  |  |
| A - Recounting Reported Results: Recount results from health facility reports, compare the verified numbers to the district reported numbers and explain discrepancies (if any). |   |        |                  |   |  |  |
| 1  | Re-aggregate the numbers from the reports received from all Health Facilities. What is the re-aggregated number? <b>[A]</b>               |        |                  |   |  |  |
| 2  | What aggregated number was contained in the summary report prepared by the council (and submitted to the Region)? <b>[B]</b>              |        |                  |   |  |  |
| 3  | <b>Percentage of recounted to reported numbers [A/B]</b>  |        | 100-110%         |   |  |  |
| 4  | What are the reasons for the discrepancy (if any) observed (i.e., data entry errors, arithmetic errors, missing source documents, other)? |        |                  |   |  |  |

**B - Reporting Performance: Review availability, completeness, and timeliness of reports from all health facilities. How many reports should there have been from all health facilities? How many are there? Were they received on time? Are they complete?**

|    |   |   |      |  |  |
|----|---|---|------|--|--|
| 5  | How many health facilities should have reported? <b>[A]</b>   |   |      |  |  |
| 6  | How many health facilities reported? <b>[B]</b>   |   |      |  |  |
| 7  | <b>Percentage of reporting health facilities [B/A]</b>  | - | 100% |  |  |
| 8  | Check the dates on the reports received. How many reports were received on time? (i.e., received by the due date). <b>[C]</b> |   |      |  |  |
| 9  | <b>Percentage of reports received on time [C/B]</b>   | - | 100% |  |  |
| 10 | How many reports were complete? (i.e., complete means that the report contained all the required indicator data). <b>[D]</b>  |   |      |  |  |
| 11 | <b>Percentage of complete reports [D/B]</b>   | - | 100% |  |  |

**Part 2. Systems Assessment**

**I - Capacities, Roles and Responsibilities of Staff on M&E**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1 | There are designated staff responsible for reviewing the quality of data (i.e., accuracy, completeness and timeliness) received from health facilities. |  |  |  |  |
| 2 | There are designated staff responsible for reviewing aggregated numbers prior to submission to the region.  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| <b>II – Training</b>   |  |  |  |  |  |  |  |  |
| 3  | All relevant staff have received training on recording, data processing reporting, dissemination and use?  |  |  |  |  |  |  |  |
| <b>IV - Forms and Tools for Data Collection and Reporting</b>  |  |  |  |  |  |  |  |  |
| 4  | All previous health service delivery point reports are available and easily accessible.  |  |  |  |  |  |  |  |
| <b>V - Data Management Processes and Data Quality Controls</b> |  |  |  |  |  |  |  |  |
| 5  | Is a written feedback provided every quarter/month to all health facilities on the quality of their reporting (i.e., accuracy, completeness and timeliness). |  |  |  |  |  |  |  |
| 6  | There is a back-up procedure for when data entry or data processing is computerized. Back-up data are stored off-site.                                       |  |  |  |  |  |  |  |
| 7  | The latest date of back-up is appropriate given the frequency of update of the computerized system (e.g., back-ups are weekly or monthly).                   |  |  |  |  |  |  |  |
| 8  | Paper reports and other confidential data are stored in a designated, locked location.   |  |  |  |  |  |  |  |
| 9  | Electronic reports and data are stored on password protected computers.  |  |  |  |  |  |  |  |
| 10   | National Guidelines on Management of HIV and AIDS Data Quality are available and in use.   |  |  |  |  |  |  |  |
| 11   | If data discrepancies are uncovered in reports from health facilities, the district has a set procedure to resolve these inconsistencies.                    |  |  |  |  |  |  |  |
| 12   | Has data quality assessment conducted and reports available?   |  |  |  |  |  |  |  |
| <b>VI – Dissemination and Use of Data</b>                      |  |  |  |  |  |  |  |  |

|  |  |  |  |  |
|--|--|--|--|--|
| Availability of updated council health profile with the inclusion of HIV and AIDS indicators, annual HIV and AIDS reports and mechanism for dissemination the information to CCHP team and health facilities |  |  |  |  |
| Availability of displayed analysis results( e.g. charts, bar graphs, bar trend etc.)   |  |  |  |  |
| Availability of reports of quarterly/ monthly/ biannual meetings for data dissemination  |  |  |  |  |

| <b>Part 3: DQA Action Plan and Recommendations</b>  |             |                             |                    |                   |                            |                |
|---|-------------|-----------------------------|--------------------|-------------------|----------------------------|----------------|
| <i>Based on the findings of the systems' review and data verification at the district level, please describe any compliance requirements or recommended strengthening measures, with an estimate of the length of time the improvement measure could take. Action points must be discussed with the CHMT.</i> |             |                             |                    |                   |                            |                |
|   | Key finding | Description of Action Point | Person Responsible | Required Timeline | Technical Assistance Needs | Follow Up Date |
| 1   |             |                             |                    |                   |                            |                |
| 2   |             |                             |                    |                   |                            |                |
| 3   |             |                             |                    |                   |                            |                |
| 4   |             |                             |                    |                   |                            |                |

| Health Facility Level  |   |  |
|--|---|--|
|  | Date of Assessment:   |  |
|  | Name of Health Service delivery point:  |  |
|  | Name of District:   |  |
|  | Documents Reviewed:   |  |
|  | Name of Assessor  |  |
|  | Name of Assessee  |  |
|  | Dates of Assessments  |  |
|  | <b>Component of the M&amp;E System</b>  | <b>Answer Codes:</b><br>Yes - completely<br>Partly<br>No - not at all<br>N/A   |
|  |   | <b>REVIEWER COMMENTS</b><br>(Please provide detail for each response not coded "Yes - Completely". Detailed responses will help guide strengthening measures.) |
| <b>Part 1: Data Verifications</b>  |   |  |
| <b>A - Documentation Review: Review availability and completeness of various source documents for the past 6 months.</b> |   |  |
| 1  | Review available source documents (e.g. registers, patient folders, copies of summary reports) for the past "X" months. Is there any indication that there are source documents missing?          |  |
|  | If YES, comment on how this may affect the reported numbers.  |  |
| 2  | For the indicator(s) being assessed, review data from the past "X" months in available registers. Are these data complete? (i.e., complete means that all required data fields are filled)        |  |
|  | If NO, randomly select 5 register pages with data from the past "X" months and count the number of times the data field being assessed was left blank when it should have been filled. <b>[A]</b> |  |
|  | Write the total number of data fields in those 5 register pages that should have been filled. <b>[B]</b>  |  |
|  | <b>Percentage of data fields not filled [A/B]</b>   |  |

|  |  |   |  |
|--|--|---|--|
| 3  | How many reports should have been submitted by this health facility to the DMO office in the past 6 months? [C]  |   |  |
|  | How many reports were submitted? [D]   |   |  |
|  | Percentage of <b>submitted reports</b> [D/C]   |   |  |
| 4  | Check the dates on the reports that were submitted. How many reports were submitted on time? (e.g., sent by the end of the first week following the reporting period). [E] |   |  |
|  | Percentage of reports submitted <b>on time</b> [E/D]   |   |  |
| 5  | How many reports were complete? (i.e. complete means that the report contained all of the required data) [F]   |   |  |
|  | Percentage of <b>complete reports</b> [F/D]  |   |  |
| <b>B - Recounting Reported Results: Recount results from registers, compare the verified numbers to the health facility reported numbers and explain discrepancies (if any).</b>   |  |   |  |
| 6  | Recount the number of people, cases or events recorded during the reporting period by reviewing the appropriate register(s). [G]   |   |  |
| 7  | Copy the number of people, cases or events reported by the site during the reporting period from the health facility summary report. [H]                                   |   |  |
| 8  | <b>Percentage of recounted to reported numbers.</b> [G/H]  | - |  |
| 9  | What are the reasons for the discrepancy (if any) observed (i.e., data entry errors, arithmetic errors, missing source documents, other)?                                  |   |  |
| <b>C - Cross-check reported results with other data sources</b>  |  |   |  |
| Cross-checks can be performed by examining separate records documenting patient data (e.g. patient laboratory results or records of dispensed medication) to see if these numbers corroborate the reported results. Cross-checks could include, for example, randomly selecting <b>10% (if files are less than 50 take all)</b> of patient folders and verifying if these patients were recorded in the unit, laboratory or pharmacy registers or in the electronic database where applicable. To the extent relevant, the cross-checks should be performed in both directions (for example, from the CTC2 card to the Register and from the Register to the CTC2 card). |  |   |  |
| 10   | List the documents used for performing the cross-checks.   |   |  |
| 11   | Describe the cross-checks performed.   |   |  |
| 12   | For the cross-checks performed, how many data records were reviewed? [I]   |   |  |

|    |   |  |  |  |  |  |
|----|---|--|--|--|--|--|
| 13 | Of those data records reviewed, how many had discrepancies when compared with the relevant register(s)? [U] |  |  |  |  |  |
| 14 | Percentage of <b>discrepant data records</b> [U/I]  |  |  |  |  |  |
| 15 | What are the reasons for any discrepancies observed?  |  |  |  |  |  |

| <b>Part 2. Systems Assessment</b>                              |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| <b>I - M&amp;E Capacities, Roles and Responsibilities</b>      |   |  |  |  |  |  |
| 1  | There are designated staff responsible for reviewing the quality of data (i.e., accuracy, completeness and timeliness) before data entry  |  |  |  |  |  |
| 2  | There are designated staff responsible for reviewing aggregated numbers prior to submission to the district   |  |  |  |  |  |
| <b>II - Training</b>   |   |  |  |  |  |  |
| 3  | All M&E management staff have received training on recording, data processing reporting, dissemination and use?   |  |  |  |  |  |
| <b>IV - Data- Forms and Tools for Collection and Reporting</b> |   |  |  |  |  |  |
| 4  | All data collection and reporting tools are available   |  |  |  |  |  |
| 5  | All previous data collection documents and reports are available and accessible   |  |  |  |  |  |
| <b>V - Data Management Processes and Data Quality Controls</b> |   |  |  |  |  |  |
| 5  | A written feedback is provided every quarter/month within the health facility and at community data source point by health facility on the quality of the report compiled (i.e. accuracy, completeness and timeliness). |  |  |  |  |  |

|   |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| 6   | There is a back-up procedure for when data entry or data processing is computerized. Back-up data are stored off-site.   |  |  |  |  |  |  |  |
| 7   | The latest date of back-up is appropriate for the frequency of update of the computerized system (e.g., back-ups are weekly or monthly).                                       |  |  |  |  |  |  |  |
| 8   | Paper reports and other confidential data are stored in a designated, locked location.   |  |  |  |  |  |  |  |
| 9   | Electronic reports and data are stored on password protected computers.  |  |  |  |  |  |  |  |
| 10  | National Guidelines for Management of HIV and AIDS Data Quality are available and in use.  |  |  |  |  |  |  |  |
| 11  | If data discrepancies are uncovered in the process of data collection and report compilation, the Service delivery point has a set procedure to resolve these inconsistencies. |  |  |  |  |  |  |  |
| 12  | Has data quality assessment been conducted and reports available?  |  |  |  |  |  |  |  |
| <b>VI – Dissemination and Use of Data</b> |  |  |  |  |  |  |  |  |
| 13  | Health facility display a key set of HIV and AIDS indicators to show their progress  |  |  |  |  |  |  |  |
| 14  | Availability of health facility profile and mechanism use to disseminate the information to the community  |  |  |  |  |  |  |  |

### Part 3: DQA Action Plan and Recommendations

Based on the findings of the systems' review and data verification at the health Service delivery point, please describe any challenges to data quality identified and recommended strengthening measures, with an estimate of the length of time the improvement measure could take. Action points must be discussed with the Service delivery point Management Team.

#### Recommendations to strengthen system performance.

| Key finding | Description of Action Point | Person Responsible | Required Timeline | Technical Assistance Needs | Follow Up Date |
|-------------|-----------------------------|--------------------|-------------------|----------------------------|----------------|
|             |                             |                    |                   |                            |                |
| 1           |                             |                    |                   |                            |                |
| 2           |                             |                    |                   |                            |                |
| 3           |                             |                    |                   |                            |                |
| 4           |                             |                    |                   |                            |                |

## Report Structure

### I. Cover page

- Title: Data Quality Assessment Report
- Date conducted: (e.g. 11/03/ 2011)
- Name of the Level assessed (e.g. Mtwara Region)
- Conducted by whom: (NACP, RHMT, CHMT)
- Logos to be attached at the bottom of the page in recommended order: (NACP, MOHCDGEC)

### II. Table of contents(sections and figures, appendices)

- Outline the sections and sub-sections of the report. It reveals the organization of the report showing the headings and sub-headings and their corresponding page numbers.

### III. Acronyms and Abbreviation

- Some common abbreviations may be used without explanation e.g. DNA, USAID
- Keep abbreviation to a minimum
- Always define abbreviation at first use in the text followed by the abbreviation in parentheses (...).

### IV. Executive summary(1-2 pages)

- Don't start writing until after your report is finished
- It summarizes a longer report
- The content (brief statement of the topic, background information, concise analysis and the main conclusion).
- Roman page number to be used

### V. Introduction

- Establish the content of work being reported
  - Discuss the relevant literature
  - Add the needed background of the respective organization
  - Add brief explanation of the data flow diagram
  - State the purpose and scope of the assessment
  - Brief explain the approaches used and possible outcomes
- Add a paragraph on capacity building received previously (if any). Should start with page number one.

### VI. Methods

- Describes how the assessment was designed, conducted and analyzed
- List of sites selected
- Compare previous DQA findings and current findings
- Name the Data collection and analytical tools used
- Explain the steps used during the assessment

### VII. Results

- Present the results of the assessment
- Show if there is any improvement in M&E data
- Demonstrate the strength of your findings



- Follow the recommended order for presenting the findings as referred to the RDQA Tool order.
- Use the tables and figures to show numerical data
- Do the comparison groups of variables

#### VIII. **Discussion**

- Do the interpretation of the findings in the context of existing knowledge and other related assessments
- The flow of the discussion should match with how the findings were arranged
- State what do you think about the assessment findings
- Cite the evidence to support your interpretation
- Discuss possible explanations for any unexpected findings
- State the limitation encountered in the assessment

#### IX. **Conclusion**

- This is the last part under the discussion
- State the implication of the findings for effective M&E system to the assessed sites.
- You need to avoid introducing new material.
- If any questions or issues remain unresolved, mention them in the conclusion

#### X. **Recommendations**

- Comprise the suggested course of action to be taken to solve a particular problem.
- Need to be written as action statements without justification.
- Expressed in clear, specific language.
- Should be expressed in order of importance.

#### XI. **References**

- Provide information to lead the readers to the sources used, whether:
  - a) Published or un published
  - b) Printed or electronic form
- Use the recommended citation style???
- Listed alphabetically by Surnames?

#### XII. **Appendices:** List of documents to be included

- Spider diagrams
- Description of RDQA Tool
- Any other relevant





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